

# IAO

# International Archives of Otorhinology

Organizing Committee

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20<sup>th</sup> Congress of the Otorhinology Foundation



The poster features a large, stylized pink ear in the center. Overlaid on the ear is the text "Congress of the Otorhinology Foundation" and "August 26-28, 2021 | São Paulo - SP". To the right of the ear is a large "20" with "Fo" inside the zero and "Years" written in a script font above it. At the bottom left is the "Fo" logo with "Fundação Otorrinolaringologia Desde 1995". To its right is the text "Location:" followed by a logo for "CENTRO DE CONVENCÕES FREICANECA". At the bottom is an orange bar with the website "www.congressoforl.org".

**Congress of the  
Otorhinology Foundation**  
August 26-28, 2021 | São Paulo - SP

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# International Archives of Otorhinolaryngology

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### 10312 Choice of treatment in acute bacterial rhinosinusitis and therapeutic success

Isabela Bezerra Pinheiro Espósito, Carolina Colombelli Pacca, Maria Fernanda Esposito Santin Lucas, Prycila Fagundes Cardoso Angelo Espósito, Mário Pinheiro Espósito, Edineia Miyuki Matsubara  
*Faceres*

**Introduction:** Symptomatic treatment of mild acute bacterial rhinosinusitis may be enough to resolve the condition, without the need for antibiotics. However, antimicrobial treatment is performed empirically. However, due to the inappropriate use of antibiotics and bacterial resistance, the rate of therapeutic failure is becoming more frequent and infections that had a good prognosis can become a serious public health problem.

**Objective:** To evaluate the therapeutic success of patients diagnosed with acute bacterial rhinosinusitis from the antibacterial treatment of choice.

**Method:** The therapeutic success of patients treated with antimicrobials was evaluated from 201 medical records of an ENT Hospital, complaining of acute rhinosinusitis. Data description was expressed by absolute and relative frequency.

**Results:** Of the 201 medical records, 63 were selected, all of which were treated with antimicrobials, being levofloxacin 42 (66.66%), amoxicillin 3 (4.76%), amoxicillin with clavulanate 13 (20.63%), moxifloxacin 3 (4.76%), gemifloxacin 1 (1.58%) and cefadroxil 1 (1.58%). Regarding therapeutic success, 39 (61.9%) were positive. Most patients (n=42) used levofloxacin, where 29 (69.04%) had therapeutic success. Among three patients who used amoxicillin, one (33.33%) was successful, of the 13 who used amoxicillin and clavulanate, five (38.46%) showed improvement, of the three who used moxifloxacin, two had a positive response (66.66 %), while the 2 patients who used gemifloxacin or cefadroxil, 100% had a satisfactory response.

**Conclusion:** First-line antimicrobials in acute bacterial rhinosinusitis had the lowest rates of satisfactory therapeutic responses. Suggesting the possibility of bacterial resistance.

**Keywords:** antibiotics; resistance; treatment.

### 10316 Oral manifestations of COVID-19 disease: A systematic review

Francielle de Carli, Aliene Natali Fabrin de Carli Brunetto, Isabela Tapie Guerra e Silva  
*UNOESC*

**Introduction:** COVID 19 has spread exponentially around the world since its discovery in China. Typical manifestations of Covid-19 include fever, dry cough, headache and fatigue. However, studies have recognized oral lesions as manifestations associated with Covid-19.

**Objectives:** This integrative literature review aims to identify the main oral manifestations of SARS-CoV2 virus infection.

**Data Synthesis:** We searched PubMed library and Google Scholar for published literature since December 2019 until July 2021. Oral manifestations included ulcer, erosion, bulla, vesicle, pustule, fissured or depapillated tongue, macule, papule, plaque, pigmentation, halitosis, whitish areas, hemorrhagic crust, necrosis, petechiae, swelling, erythema, and spontaneous bleeding. In addition, they present taste impairment as the most common symptom, with dysgeusia being the most prevalent. The most common sites of involvement were tongue (38%), labial mucosa (26%), and palate (22%). Oral lesions were nearly equal in both genders (49% female and 51% male).

**Conclusion:** Infection with SARS-CoV-2 may result in oral manifestations with various clinical presentations. There is growing evidence that angiotensin-converting enzyme 2 (ACE2), the main host cell receptor of SARS-CoV-2, is highly expressed on the epithelial cells of the tongue and of the salivary glands, which may explain the development of dysgeusia in patients with COVID-19. Patients with older age and higher severity of COVID-19 disease had more widespread and sever oral lesions. Lack of oral hygiene, opportunistic infections, stress, immunosuppression, vasculitis, and hyper-inflammatory response secondary to COVID-19 are the most important predisposing factors for onset of oral lesions in COVID-19 patients.

**Keywords:** COVID-19; SARS-CoV-2; oral manifestations.

### 10320 Association of air pollution with the olfactory function of São Paulo citizens

Henrique Ochoa Scussiatto, Alan Felipe Figueiredo, Rafael Antonio Matias Ribeiro Ramos, Marco Aurelio Fornazieri  
*Universidade Estadual de Londrina (UEL)*

**Introduction:** Pulmonary, cardiovascular, and neurological impairment caused by pollution is well known. However, the effect of air pollutants on olfactory function has not been well established.

**Objectives:** Measure the level of individual air pollution exposure in a large sample and related it to the olfactory function.

**Methods:** One-thousand three-hundred and fifty-eight individuals from São Paulo were recruited from areas with different levels of air pollution. The amount of their exposure to seven pollutants (PM2.5, PM10, TSP, environmental smoke, NO2, CO, O3) for one year was estimated by meteorological station data and interpolated by the kriging method. Olfactory function was tested by the University of Pennsylvania Smell Identification Test (UPSIT). Through a multiple linear regression, the effect of each pollutant on olfactory function was calculated, controlling for other demographic variables with a known association with smell capacity.

**Results:** Although NO2 (p 0.04, CC 0.05) and TSP (p 0.02, CC 0.05) had correlation with the UPSIT in a first analysis, these relations disappeared when controlled to other factors. Interestingly, the PM2.5 (beta 0.26, 95% CI 0.003, 0.53) tended to relate to olfaction, however it was very weak to be relevant. Other pollutants did not have relation to UPSIT scores.

**Conclusion:** Exposure to some air pollutants in short periods is not associated with loss of smell quality, and studies are needed to verify the influence of these pollutants in the long term.

**Keywords:** smell disorders, olfactometry, air pollution, olfactory perception.

### 10372 Comparative study of neurodiagnosis in children with Zika virus syndrome with and without microcephaly

Silvana Frota, Carlos Alberto Leite Filho, Adriana Salvio Rios, Maria Elizabeth Moreira, Eloah Monteiro Pinho, Adriana Davila Ferreira, Dimitri Marques Abramov  
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**Introduction:** Children with Zika virus syndrome must undergo audiological monitoring until the third year of life due to risk indicators for late hearing loss. The use of auditory brainstem response-click (ABR-click) allows us to assess and monitor the maturation of the auditory pathway in its full extension.

**Objective:** to comparatively study the parameters of the ABR-click (Neurodiagnosis) in children without and with microcephaly and investigate possible differences between these groups.

**Methods:** Descriptive, cross-sectional and retrospective study. The study included data from 175 children, with confirmation of the disease through a positive RT-PCR laboratory test. Children with other head and neck malformations, or who had a positive result for other congenital infections were excluded from the study. To compare latencies I, III and V and inter-peak I-V, we used standardized values (z-scores), through Student's t test for independent samples or Mann-Whitney U test.

**Results:** There was a statistically significant difference between the ears of children with and without microcephaly in relation to the standardized values of the I-V inter-peak interval, and the group of individuals with microcephaly had a higher latency value compared to the group of individuals without microcephaly. For the other parameters (latencies I, III and V), no statistically significant differences were observed.

**Conclusion:** Children with microcephaly had a higher standardized value of the I-V inter-peak interval compared to individuals without microcephaly.

**Keywords:** auditory brainstem response (ABR), hearing loss, microcephaly, Zika virus.

### 10374 A multi-disciplinary consensus for the diagnosis and management of pediatric OSA in Brazil

Silke Anna Theresa Weber, Marieli Timpani Bussi, Almiro José Machado Júnior, Camila de Castro Corrêa, Edilson Zancanella  
UNESP/Botucatu - Unicamp

**Aims:** to elaborate a multi-disciplinary consensus for the diagnosis and management of OBD in children, adapted for the Brazilian reality, based on the Delphi method.

**Methods:** Based on the Delphi Method, a questionnaire with six domains (anamnesis, physical examination, complementary exams of the upper airway, polysomnography or similar, multi-level treatment) was elaborated by a group of specialists, and submitted to a multi-professional group (otolaryngologists, dentists, speech-language therapists, pediatricians), all renamed specialists in pediatric OSA. For each domain, 4 to 5 questions were elaborated with answers based on best clinical evidence and on real-life feasibility. Results were analyzed for agreement and divergence.

**Results:** Multi-disciplinary analysis showed divergences for diagnostic approaches as use of questionnaires, indication for polysomnography, indication for nasofibroscopy, treatment priorities, and for the approach of the obese child and of a syndromic one. Agreements were observed mostly for anamnesis.

**Conclusion:** Delphi method attended the necessity for question elaboration and judgement. The multi-professional discussion enhanced the necessity of an elaboration of a multidisciplinary consensus statement, important for defining best clinical practice for the Brazilian reality.

### 10387 Treatment of sialorrhea with botulinum toxin in neuropathic children in Pediatric Hospital in João Pessoa - PB

Jéssika Cavalcante Silva Contasti, Alvaro Vitorino de Pontes Junior, Adriano Sergio Freire Meira, Yuri Ferreira Maia, Fábila Lívia Ramos Brilhante de França, Henrique Coutinho Oliveira, Isaura Raquel Nogueira de Medeiros  
SOS Otorrino João Pessoa

**Introduction:** Hypersalivation is a common symptom in several neuropathies and can cause serious clinical, functional and social problems.

**Objective:** To analyze the effectiveness and degree of impact of drool before and after treatment with application of botulinum toxin in salivary glands.

**Method:** Analytical-descriptive, cross-sectional study, using the Drooling Impact Scale questionnaire, answered by caregivers before and after the procedure. Included in the study: neuropathic patients with sialorrhea, aged between 1 year and 18 years.

Botulinum toxin type A was applied, diluted in 0.9% saline, calculated dose of 10UI/Kg, divided between the parotid and submandibular glands. The application was guided by palpation and anatomy of the glands, due to the absence of ultrasound in the service. All children in the study weighed more than 10 kg, being administered 30U in each parotid gland, and 20U in the submandibular, after anesthetic sedation in the operating room.

**Results:** Five patients were selected from the Hospital Arlinda Marques, between June and December 2020, aged 1-14 years, all eating by gastrostomy. We observed an improvement in sialorrhea and in the patients' quality of life, with a reduction in complications and hospital admissions.

**Conclusion:** The treatment of sialorrhea by the public health service has limitations, from the lack of supplies to the absence of qualified and trained professionals. Botulinum toxin showed excellent results, however, we need a more significant sample and more studies on therapy.

**Keywords:** hypersalivation, neuropathy, botox.

### 10400 Association of nasal polyposis with olfactory function and quality of life in patients with chronic rhinosinusitis

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**Introduction:** Chronic rhinosinusitis is a common condition that is phenotypically classified as with (CRSwP) and without nasal polyposis (CRSSP). To know if nasal polyposis is a predictor of worse olfactory function and lower quality of life may guide us in the choice of a more adequate treatment.

**Objectives:** To determine if the presence of nasal polyposis interferes with the olfactory function and quality of life in patients with CRS.

**Methods:** A cross-sectional study was conducted at Universidade Estadual de Londrina, including 73 patients with chronic rhinosinusitis. Based on nasal endoscopy, patients were classified into CRSwP or CRSSP. Information about asthma, smoking and drug allergies were also collected. In addition, all subjects performed the University of Pennsylvania Smell Identification Test (UPSIT) and answered the Sino-Nasal Outcome Test-22 (SNOT-22).

**Results:** The mean age of participants was 45.5 years ( $\pm 16.2$ ), most of them with nasal polyps (75.3%); twenty-five had asthma (34.3%) and 9 were smokers (12.3%). The polyposis group presented a lower olfactory function (mean UPSIT=18.6 vs CRSSP=28.8,  $p<0.01$ ), as well as a higher score on the SNOT-22 questionnaire (mean= 54.5 vs CRSSP=38.2,  $p=0.01$ ). There was no difference for drug allergies ( $p=0.4$ ), smoking ( $p=0.52$ ) and asthma ( $p=0.5$ ) among the groups.

**Conclusion:** This study has demonstrated worse olfaction and lower quality of life in patients with nasal polyps. It increases the evidence that the presence of nasal polyposis must lead us to a more intense treatment to accomplish better results about olfactory function and quality of life.

**Keywords:** sinusitis; olfaction; quality of life.

### 10403 Betahistine for primary tinnitus: A randomized clinical trial

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**Introduction:** Betahistine dihydrochloride is a weak histamine H1 receptor agonist and a potent histamine H3 receptor antagonist commonly used to treat primary tinnitus. Even with positive results, rigorous clinical trials for primary tinnitus betahistine efficacy are still missing. Therefore, the objective is to test betahistine efficacy for primary tinnitus following the SPIRIT and CONSORT statements. Is betahistine dihydrochloride more effective than a placebo to treat primary tinnitus?

**Methods:** Randomized, double-blind, placebo-controlled, two arms, parallel-group, a single-center trial conducted in a Brazilian tertiary referral center. Adults aged 18-70 years with subjective, idiopathic, non-pulsatile bothersome tinnitus of 6 months' duration or longer were recruited from November 2018 to March 2020. Random blinded allocation (1: 1) to either 24 mg Betahistine twice daily or matched placebo twice daily for 12 weeks. The primary outcome was the assessment of tinnitus before and after intervention by Tinnitus Handicap Inventory (THI) score. Secondary outcomes included the Clinical Global Impression-Improvement (CGI-I) score and Safety. Of 310 patients initially screened for eligibility, 62 were recruited.

**Results:** An Intention to Treat Analysis (ITT) was performed on 62 participants recruited at the end of the 12 weeks of intervention, 5 participants lost the final evaluation (Multiple Imputation). Primary outcome: no improvement difference in the THI score was found between treatment arms ( $U = 1813.5$ ,  $p = .6$ ). The secondary outcome: no impression of improvement and side effects difference were found, CGI-I ( $p = .15$ ), side effects ( $p = .09$ ).

**Conclusions:** Betahistine was ineffective to treat primary tinnitus.

**Keywords:** Betahistine, tinnitus, clinical trial.



#### 10419 Masking level difference: Test-retest reliability in normal hearing adults

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**Introduction:** Test-retest reliability is an essential trait to provide a reliable assessment of the central auditory nervous system through behavioral auditory processing tests. Until now, few studies investigated the test-retest reliability of the Masking Level Difference (MLD), an auditory test designed to assess binaural interaction.

**Objectives:** to verify the test-retest reliability of the MLD in normal hearing adults.

**Methods:** 78 young female adults with normal peripheral hearing were submitted to the MLD by Auditec of Saint Louis. The difference between signal-to-noise ratios found in antiphasic and homophasic conditions was used to calculate the MLD. The test was applied by the same examiner at the test and retest moments with an interval of seven to 14 days between them. Test and retest moments were compared through Student's t test for paired samples. Test-retest reliability was measured by using intraclass correlation coefficient. Confidence intervals of 95% were calculated for MLD measurements.

**Results:** Mean signal-to-noise ratio in homophasic condition was -12.59 dB and -12.46 dB at the test and retest moments, respectively, and -21.54 dB and -21.08 dB in the antiphasic condition. Mean value of the final MLD result was 8.95 dB and 8.74 dB at the test and retest moments, respectively. Confidence intervals were similar between test and retest moments for all measurements. Intraclass correlation coefficient values obtained were 0.436, 0.625 and 0.577 for homophasic, antiphasic and MLD conditions, respectively, suggesting moderate test-retest reliability.

**Conclusion:** The MLD showed moderate test-retest reliability in normal hearing adults.

**Keywords:** hearing tests, reproducibility of results, auditory perception, auditory perceptual disorders.

#### 10428 Vocal fold leukoplakia: Effectiveness of vitamin A in the initial treatment

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**Introduction:** Laryngeal leukoplakia is defined as a white lesion in the mucosa, related to the deposit of keratin in the epithelium. It is considered a pre-neoplastic lesion, the treatment of choice is surgical, but there are those who advocate an initial clinical treatment with vitamin A.

**Objective:** To evaluate the effectiveness of clinical treatment with vitamin A in the initial management of vocal fold leukoplakia.

**Material and Method:** Patients diagnosed with vocal fold leukoplakia were selected, confirmed by videolaryngostroboscopy. From these images, the proportional calculation of the dimensions of the leukoplastic plaque was made. Eligible patients were prescribed vitamin A for two months at a dose of 50,000 IU twice daily. Later, the patients repeated the videolaryngostroboscopy. The interpretation of treatment efficacy was based on four outcomes: I-complete improvement: absence of injury; II-partial improvement up to 50% in relation to the initial injury; III-partial improvement between 51 to 99% in relation to the initial injury; IV-increased lesion.

**Results:** 15 patients completed the treatment. Six patients had bilateral lesions, totaling 21 vocal folds. In the comparison before and after treatment, seven vocal folds showed complete remission of the lesions, in six there was partial improvement and in eight there was an increase in the lesions.

**Conclusion:** In the sample studied, drug treatment of laryngeal leukoplakia with vitamin A at a daily dose of 100,000 IU for two months proved to be effective in reducing or eradicating lesions in 62% of cases, especially in regular-looking lesions.

**Keywords:** leukoplakia, vocal folds, vitamin A.

#### 10441 The effects of a lifestyle modification program on obese OSA patients: A pilot study

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**Introduction:** Physical conditioning is considered an alternative, complementary treatment for obstructive sleep apnea (OSA).

**Aim:** to investigate the impact of a supervised-exercise protocol in obese OSA patients on the AHI, daytime sleepiness, quality of sleep and life.

**Methods:** This prospective study was approved by the local ethic commission. 10 (6 male) overweight adults (BMI 34.3+5.4kg/m<sup>2</sup>), IAH=20.8+13.8 event/h, finalized the study. The 10-week protocol of supervised exercise was composed by mixed 30min. walking (60-80% HRmax.) and 40min. resistance training in academy (8 exercises, 3 bouts of 8-12 repetitions, 60-70% 1RM). Functional capacity (6min. walking test), anthropometry, Sleep quality questionnaire (Pittsburgh PSQI), Excessive Daytime Sleepiness (Epworth ESS) and Quality of life (Sf-36), were assessed. Baseline and after-intervention data were compared (p<0.05).

**Results:** No patient showed reduction of BMI, although physical conditioning effects were detected (increased number of walking steps of 6min. test), beside reduction of the waist circumference. Obstructive Apnea-index reduced significantly (7.3 ± 11.6 vs. 0.9 ± 1.2 events / h), although AHI showed no significant reduction. All patients improved daytime sleepiness, sleep quality and quality of life.

**Conclusions:** Physical activity reduced obstructive apneas, possibly influencing the loop gain response, the ventilatory muscle responsiveness and/or the arousal trigger. It also improved the expected fitness and body fatness, sleep quality and quality of life, along with reducing excessive daytime sleepiness.

#### 10444 The long patient's journey for OSA diagnosis and treatment in a public university hospital in Brazil

Silke Anna Theresa Weber, Jefferson Luís de Barros, Douglas Inomata Cardoso da Silva, Karina Araújo dos Santos, Silke Anna Theresa Weber, Antonio Carlos Marao, Roberto Hugo Aguiar Abilio  
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**Introduction:** OSA is diagnosed by fullnight polysomnography, gold standard treatment needing CPAP titration. At Brazilian public health system SUS, patients are referred from the basic health unit to the sleep unit, which have long waiting lists for exams; delay of distribution of CPAPs depending on the waiting list of the cities.

**Aim:** to evaluate the time intervals for the diagnosis and treatment flow in the public sleep service of a university hospital in Brazil.

**Methods:** Adult patient's charts who realized diagnosis PSG in the sleep lab at HCFMB Botucatu-UNESP in 2017 were analyzed, excluding neuromuscular disease patients and split night exams. Demographic profile of the patients was obtained for hypertension, DM, obesity. Mean waiting days to T1: PSG realization, T2: CPAP titration and to T3: CPAP prescription were obtained. We also looked at the patient's drop-off at each step, and how many patients received a CPAP machine at time of analysis.

**Results:** Out of 347 patients who realized PSG, 200 had indication for CPAP, 103 (51%) concluded CPAP titration, being 78% obese, 71% hypertension, 44% DM, 15% COPD. Waiting time was T1: 197 days, T2: 208 days, T3: 98 days. Only 35% started CPAP treatment, the remaining 65% still waiting for the machine by December 2020. Out of the 347, 98 (28%) missed some return visit, with drop-off.

**Conclusions:** The public flow of OSA diagnosis and treatment with CPAP is highly inefficient, the not-patient-centralized agenda raises long time intervals, with a high drop-off rate.

#### 10450 Evaluation of nasal symptoms and sleep quality of patients undergoing septoplasty: Preliminary data

Danielle Repsold, Isabelly Regis Cruz, Ilana Campos da Rocha Almeida, Ana Carolina Pires de Mello de Azevedo, Fabiolla Maria Martins Costa, Luciana Balester Mello de Godoy, Rodrigo Aragao Torres

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**Introduction:** Nasal septum deviation has a mean prevalence of 80%. Nasal obstruction is the main complaint reported with a prevalence of 46-60% and can decrease these patients' quality of life.

**Objective:** To evaluate the effects of septoplasty with or without inferior turbinectomy on nasal obstruction and on other clinical symptoms (snoring, subjective excessive daytime sleepiness, nasosinus symptoms and quality of life and sleep) in adults with nasal septum deviation.

**Methods:** From September 2020 to June 2021, patients submitted to septoplasty with or without inferior turbinectomy at a tertiary care hospital were preoperatively evaluated. All patients completed the NOSE questionnaire, Epworth Sleepiness Scale (ESS), Pittsburgh Sleep Quality Index (PSQI), the Functional Outcomes of Sleep Questionnaire (FOSQ), SF-36 questionnaire and the snoring part of Berlin questionnaire before septoplasty.

**Results:** Twenty-five patients (11 women and 14 men, mean age  $34.6 \pm 18.6$  years and mean BMI  $26.2 \pm 3.8$  kg/m<sup>2</sup>) underwent septoplasty from September 2020 to June 2021. Mean NOSE questionnaire score was  $13.5 \pm 6.3$  and mean ESS score was  $7.7 \pm 4.9$ . Mean total PSQI score was  $7.5 \pm 3.6$  and mean total FOSQ score was  $16.4 \pm 3$ . Most patients (61.5%) reported that they snored and 34.6% reported that snored almost every day. During preoperative physical examination, 69.2% had unilateral septum deviation, 73.1% had Cottle's nasal area II deviated and 53.8% had obstructive septum deviation. Septoplasty was associated to Turbinectomy in most cases.

**Conclusion:** Nasal obstruction caused by septum deviation can decrease patients' quality of sleep and life.

#### 10460 "My adventure at the hospital", humanizing surgery in children-a feasibility study

Elisangela Barbosa Dias, Isabella Gonçalves Pierri, Rafaela Aparecida Prata de Oliveira, Elisangela Barbosa Dias, Marla Andréia Garica de Avila, Andreza Belluomini Castro, Silke Anna Theresa Weber

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**Introduction:** Surgery in children causes stress and anxiety to the child and the parents, for reduction, ludic strategies are frequently implemented.

**Aim:** to evaluate the feasibility of the introduction of ludic scenarios in the operating theater for surgery in children.

**Methods:** The study was performed at Hospital Estadual Botucatu-HCFMB, including children aged 3 to 8 years old. All scenarios were composed by a panel, removable figures and an interactive toy. The child and the parents were told the story at the ward before coming to the operating theater. One scenario shows the magic fairy forest, the child being asked to bring a lost fairy back to her home; the second shows the space, the child receiving a helmet and an interactive planetarium to choose the planet for the journey. As outcomes, we evaluated the building time of the scenarios during a routine day with up to 3 sequential surgeries in 2 simultaneous rooms, and anxiety and interaction of the children.

**Results:** During 5 months, 84 surgeries (50% adenotonsillectomies) were performed. Building up of the scenarios took about 10 minutes, not causing delay to the routine, even when in simultaneous theaters; panels and figures were disinfected using ammonium quaternarium. More than 90% of the children showed a good interaction with the history and reduction of anxiety.

**Conclusion:** The building of ludic scenarios in the operating theater showed to be feasible, allowing good interaction with the pediatric patient, reducing the stress and anxiety of the parents and the child.

#### 10465 Sleep assessment in chronic rhinosinusitis patients with nasal polyposis before and after nasosinus endoscopic surgery: Systematic review and meta-analysis

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Universidade Estadual de Campinas - UNICAMP

**Introduction:** Patients with nasal obstruction due to chronic rhinosinusitis with nasal polyposis may present an alteration in the quality of their sleep. Literature still has scarce data on the subject.

**Objectives:** to evaluate changes in sleep quality and polysomnographic parameters in patients undergoing functional endoscopic sinus surgery for chronic rhinosinusitis with nasal polyposis.

**Methods:** Studies evaluating adults with sleep apnea and nasal polyposis who underwent endoscopic nasosinus surgery were selected. A systematic review was carried out in the following databases: Pubmed, Cochrane and Embase, with the following Keywords: chronic rhinosinusitis, nasal polyposis, sleep quality, nasosinus endoscopic surgery. The meta-analysis compared the mean of scores obtained between pre- and postoperative moments for polysomnographic and subjective variables.

**Results:** five articles were selected, including three studies, only one randomized. The total sample consisted of 64 patients. There was a decrease in the mean AHI score, improvement in mean and minimum saturation. The mean difference between post and pre for STAGE N3% was 1.12 with 95% CI between -3.51 and 5.75 without significance.

There was a mean increase in the percentage of REM sleep duration and a decrease in PSQI scores, both with statistical significance ( $p < 0.05$ ).

**Conclusion:** There was an improvement in the quality of sleep and in the duration of REM sleep after surgery, with no improvement in polysomnographic respiratory parameters.

#### 10479 The profile of COVID-19 patients who evolved to sudden deafness: A Systematic Review

Thaiane Varela Bento, Caio de Freitas Madruga, Enio de Castilho Kloh, Carlos Alexandre de Oliveira Lopes, Debora Petrungaro Migueis, Edna Patricia Charry Ramirez, Haline Novais Cavalcanti

Universidade Federal Fluminense

**Introduction:** Several articles reported cases of sudden deafness (SD) in patients with Sars-cov2 virus, but no study compared them.

**Objectives:** To analyze the profile of individuals with SD and COVID-19, estimate possible risk factors and deafness prognosis.

**Data Synthesis:** According to PRISMA guidelines, this systematic review included letters to the editor, case reports or series published in English between January 2019 and June 2021, proving deafness by audiometric tests and Sars-cov2 infection through reverse transcriptase reaction followed by polymerase chain reaction (Rt-PCR). This research was conducted in PUBMED, LILACS, Web of Science, EMBASE, Scopus, Science Direct, and DOAJ, with the Mesh Terms: "(Hearing loss sudden OR sudden deafness) AND (COVID-19 OR coronavirus disease)".

Our review included 14 articles that totaled 31 patients (median age 47 years, age range 18-72 years, 58% male, 84% without comorbidities). There were 69% with moderate to a severe degree, 96% sensorineural losses, 22% associated with dizziness, and 35% had cochlear hyperintensity on MRI. Eleven individuals underwent corticotherapy until 14 days after the SD onset, although four didn't document its beginning precisely. After systemic or intratympanic corticotherapy, 63% registered some hearing recovery. Only 1 case had a complete hearing recovery, whereas two were rehabilitated with the cochlear implant.

**Conclusion:** The current SD profile, similar to non-COVID-19 literature, presented a poor hearing prognosis, possibly due to peripheral neuropathies. Comorbidities associated with a worse prognosis in Sars-cov2 infection were not related to deafness. Further analyses may help the diagnostic and therapeutic approach, which reiterate the COVID-19 prevention relevance.



#### 10480 Clinical-epidemiological profile of foreign bodies in an otolaryngology unit in the city of Manaus, Brazil

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**Introduction:** A foreign body (FB) is considered as being the presence of an object or living being in cavities of the human body. Foreign bodies can be inanimate (fragments of foam, paper and seeds, etc.) or animate (larvae and insects). Symptoms vary according to type, location, length of time in the body.

**Objectives:** Analyze the clinical-epidemiological profile of FBs at a reference unit in Manaus, Amazonas state, Brazil.

**Methodology:** This is a cross-sectional, analytical study, evaluating medical records of FB care in a otolaryngology unit in Manaus.

**Results:** We analyzed 256 medical records with prevalence of FBs in adults (55%) and children (31%). The most frequent location of FBs was the oropharynx (46.1%), followed by ears (44.5%) and nasal passages (9.4%). The main signs and symptoms were dysphagia (14%), dyspnea (5.2%), otorrhea and otorrhagia (1.8%). Most of the pharyngolaryngeal IFBs were fishbones (40.6%) and otologica IFBs were cotton fragments (10%), seeds and animate FBs (14%). Beads were found in the nasal passages (8.6%). The complication rate was 6.3%. There were fourteen (12%) otological complications, including six external auditory canal lacerations and four external otitis and tympanic membrane perforations. A total of 79% of patients had their FBs removed, while 20.6% were referred to an emergency department.

**Conclusion:** FBs are most often found in the oropharynx of adults. Complication rates were low. Cases with prior manipulation by an unqualified professional or layperson evolved with complications, emphasizing that the management of these patients should be performed by the otolaryngologist and with the use of appropriate equipment.

#### 10485 Profile of postoperative complications in patients undergoing tonsillectomy at a university hospital: Our experience

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**Introduction:** Adenotonsillectomy (AT) is widely performed, but it is not free from complications.

**Objective:** To analyze the frequency and the risk factors of AT postoperative complications.

**Methods:** A retrospective cohort study was carried out with data from medical records of children under 18-year-old who underwent AT between January 2019 and May 2021. The AT was performed under local and general anesthesia without topical hemostatic biomaterials. The mono/bipolar cautery and catgut suture were used for homeostasis.

**Results:** From 139 patients (51.7% male, 2-17yo, median age 7.7), 137 underwent adenotonsillectomy and 2 only adenoidectomy. Surgical indications were recurrent tonsillitis (57.6%) and snoring (94.2%). Comorbidities: Allergic rhinitis (45.2%), asthma (15.8%), attention deficit disorder (2.2%), obstructive sleep apnea (1.4%), neurological disorders (1.4 %), coagulopathy (0.7%), sickle cell trait (0.7%), thalassemia (0.7%). During the perioperative period 0.7% had bronchospasm and 2.2% laryngospasm. The postoperative complications after the 7th postoperative day were: otalgia (7.2%), mild self-limited bleeding (2.2%), severe odynophagia (1.4%), infection (0.7%); 14th: mild self-limited bleeding (0.7%), otalgia (0.7%), dehydration (0.7%); 30th: odynophagia (1.4%).

**Discussion:** The complications of this sample are similar to the literature. In our experience, allergic rhinitis was the most frequent comorbidity. It was reported by three cases older than 10 yo who had mild postoperative bleeding, the most frequent complication controlled with expectant management.

**Conclusion:** Allergic rhinitis may increase lymphoid tissues and local inflammation, which possibly impairs blood coagulation. Finally, perioperative care helps to reduce AT morbidity and mortality.

**Keywords:** adenotonsillectomy; children; postoperative complications.

#### 10486 Impact of lockdown (COVID-19) on the epidemiology of craniomaxillofacial trauma care in a trauma reference hospital

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**Introduction:** Due to the state of the Coronavirus pandemic, many localities recommended to their citizens measures to restrict the movement of people in the streets. It is estimated that there has been a reduction in the number of consultations for trauma cases in general, including craniofacial trauma, since its incidence is closely linked to population displacement, as its main etiology is traffic accidents.

**Objectives:** To evaluate the influence of restrictive measures adopted by the State on the epidemiology of craniomaxillofacial trauma care at a trauma referral hospital during a Coronavirus pandemic.

**Methods:** Retrospective observational analysis of the number of admissions performed in this service during a period of greater restriction (lockdown) in the city of Curitiba in March 2021, compared to the same period in 2020 (without lockdown).

**Results:** During the month of March 2020, the number of patients hospitalized due to craniomaxillofacial trauma was 21 patients, with an average age between 20 and 78 years, 20 males and 1 female and average duration of 14.35 days of hospital stay. In comparison, in March 2021 there was a reduction in this number, with 7 hospitalized patients, aged between 22 and 48 years, 5 males and 2 females, with an average of 7.28 days of stay.

**Conclusion:** During the COVID-19-related lockdown, a dramatic decrease in facial trauma patients was observed at our tertiary care hospital, mostly in older age ranges.

**Keywords** (3 to 5): lockdown, facial trauma, facial fractures, SARS-CoV2.

#### 10488 Analysis of oral hygiene habits among youth in the metropolitan region of Campinas

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**Introduction:** Despite several advances in terms of access to basic sanitation and information on healthy habits, the oral health conditions of young Brazilians are still a matter of concern. Although the goals of the World Health Organization (WHO) regarding dental condition in children up to 12 years of age were reached in 2000, the need for monitoring in more advanced age groups is evident.

**Objectives:** To assess the prevalence of oral diseases among young people between 17 and 18 years old who presented themselves for military conscription in Campinas, between June 2017 to December 2017.

**Methods:** Descriptive analysis of oral hygiene habits and socio-demographic data through the application of a questionnaire developed by the researchers.

**Results:** Data were obtained from 1963 young males, aged between 16 and 25 years-old, the majority (81.2%) with an education level based on complete high school. Only 1 participant claimed not to brush their teeth daily. Brushing frequency varies between once/day: 3.7% (n=73), twice/day: 32.8% (n=644), 3 times/day: 49.9% (n=981), 4 or more/day: 13.2% (n=60). Seventy-seven (3.9%) of them share a toothbrush. Almost 60% of participants have a history of cavities and 20.7% of them do not have access to a dentist.

**Conclusion:** Data from this sample allow us to conclude that good oral hygiene habits are not present in the entire population of

Brazilian youth. Measures advocating the improvement of these habits and access to health must be implemented and often exercised.

**Keywords** (3 to 5): oral hygiene, oral diseases, oral health.

#### 10491 Interleukin-1 alpha and susceptibility to aural fullness in older adults

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**Introduction:** Interleukin-1 alpha (IL-1 $\alpha$ ) contributes to inflammatory responses in the immune and other physiological systems, due to infection of the stria vascularis, organ of Corti, or spiral ganglion cells. The persistence of these mechanisms causes stenosis or atresia, with ischemic necrosis, which, along with aging and noise exposure, are among the factors that may damage the hair cells of the organ of Corti and result in impaired perfusion, which in turn can cause aural fullness.

**Objectives:** To investigate the association between single-nucleotide polymorphism at position -889 (C/T) in the promoter region of the IL-1 $\alpha$  gene and susceptibility to aural fullness.

**Methods:** This was a case-control study with a sample of 108 independent older adults over 60 ( $68.00 \pm 4.81$ ) years of age. We obtained information on occupational noise exposure and aural fullness with interviews and analyzed genetic polymorphism with polymerase chain reaction, followed by NcoI restriction enzyme cleavage. Data were analyzed with the Chi-square test, using the 5% significance level.

**Results:** We analyzed 107 genetic procedures. Regarding the genotype frequency of IL-1 $\alpha$ , 10.28% were homozygous for the C allele, 29.91% were homozygous for the G allele, and 59.81% were heterozygous. A total of 17.07% of the older adults reported aural fullness and noise exposure. There was no statistically significant association between IL-1 $\alpha$  gene polymorphism and aural fullness.

**Conclusion:** This study suggests that there is no association between IL-1 $\alpha$  gene polymorphism with susceptibility to aural fullness in individuals without a history of occupational noise exposure.

#### 10514 COVID-19 in otorhinolaryngology practice: Symptoms and prevalence at a tertiary service

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**Introduction:** The Coronavirus belongs to a respiratory virus's family that causes Severe Acute Respiratory Syndrome (SARS). The COVID-19 infection may be asymptomatic or cause mild to severe manifestations. The otorhinolaryngological symptoms include odynophagia, headache, olfactory and taste disorders, among others.

**Objective:** Evaluate the prevalence of COVID-19 in an otolaryngology emergency department during the pandemic period.

**Methods:** A retrospective analysis of medical records in a 6 month period (June to December 2020), from patients presented with complaints suggestive of COVID-19. Those patients were submitted to one of 3 diagnostic Methods: RT-PCR, IgM /IgG serology or Rapid test.

**Results:** 42 patients (42%) tested negative for COVID-19 with an average symptom duration of 12.28 days (ranging from 2 days up to 5 months) and 58 patients (58%) tested positive, with an average symptom duration of 17.79 days (ranging from 1 day up to 5 months). Coryza was present in 33 patients (56.89%), nasal obstruction in 31 (53.44%), myalgia in 30 (51.72%), olfaction disorder, such as hyposmia and anosmia in 29 (50%), odynophagia in 22 patients (37.93%), headache in 21 (36.2%), dysgeusia in 18 (31.03%), fever in 16 (27.58%), cough in 12 (20.68%), dyspnea and dizziness in 6 (10.34%), otalgia and dysphonia in 3 (5.17%).

**Conclusion:** The clinical condition generally presented by COVID-19 infected patients is similar to any typical and common upper airway infection. Therefore, the hypothesis of differential diagnosis with Coronavirus infection should always be raised and investigated.

**Keywords:** COVID-19, severe acute respiratory syndrome (SARS), otorhinolaryngological symptoms.

#### 10523 Prevalence and evolution of otological symptoms in patients with COVID-19 at HCFMUSP: Evidence 6 months after hospital discharge

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**Introduction:** COVID-19 infection has been associated with the appearance or worsening of otological symptoms, such as hearing loss, tinnitus, and dizziness. Most publications related to these manifestations are case reports or studies done with few patients, and it is not possible to establish a correlation between the disease and these symptoms.

**Objectives:** To evaluate the prevalence and evolution of otological symptoms in patients infected with the new strand of coronavirus, admitted to Hospital das Clínicas, Faculty of Medicine, University of São Paulo (HCFMUSP).

**Methods:** 903 adult patients with COVID-19 admitted to HCFMUSP were recruited for a multidisciplinary study between October 2020 and March 2021, with different degrees of disease severity. The assessments were carried out 6 months after hospital discharge and 847 patients have completed all stages of the study. For the otological investigation, a questionnaire was used to measure the appearance or worsening of hearing loss, tinnitus, and dizziness, as well as the resolution or persistence of problems.

**Results:** The prevalence of hearing loss onset or worsening after COVID-19 was 14,05%, with no improvement six months after hospital discharge in 89% of the cases. The onset or worsening of tinnitus and dizziness were reported, respectively, by 13,8% and 24,2% of patients. After six months, 59% of patients with tinnitus and 63% of the patients with dizziness persisted with these symptoms.

**Conclusion:** Hearing loss, tinnitus, and dizziness have been relevant symptoms in patients with COVID-19 and present an unfavorable evolution in this studied group.

**Keywords:** covid-19, hearing loss, tinnitus, dizziness.

#### 10546 Early diagnosis of obstructive sleep apnea in young and middle-age adults

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**Introduction:** Obstructive sleep apnea is a chronic condition, caused by episodes of superior airway obstruction during sleep. Its consequences include overall reduction in quality of life, cardiovascular and metabolic disorders, and the main predisposing factors include male gender, advanced age and high body mass index. The young adult population exhibits a greater risk of long-term morbidity and mortality, which can be explained by the lack of early diagnosis.

**Objectives:** Investigate the prevalence, clinical presentation and the importance of early diagnosis of Obstructive Sleep Apnea Syndrome in young adults.

**Methods:** Retrospective observational study of 219 medical records from June 2019 to January 2021 in a tertiary otolaryngology service in São Paulo, Brazil. Eighty-three individuals with Obstructive sleep apnea aged between 23 and 45 years were selected and their records analysed, including clinical history, nasal endoscopy and polysomnography.

**Results:** According to the Polysomnography, each patient's condition was classified as mild (Apnea/Hypopnea Index from 5 to 15), moderate (15 to 30) and severe (higher than 30). Of the 24 (28,91%) classified as mild, 15 had comorbidities and 14 were overweight. Of the 30 (36,14%) classified as moderate, 30 had comorbidities and 27 were overweight. Finally, of the 24 (28,91%) classified as severe, 19 had comorbidities and 22 were overweight.

**Conclusion:** Obstructive sleep apnea has a considerable prevalence in young adults, particularly associated to overweight and comorbidities. Therefore, it is important this population be investigated to prevent the development or deterioration of disorders.

**Keywords:** obstructive sleep apnea syndrome, young adult, superior airway obstruction.

#### 10548 Effect of different therapies on chemosensory outcomes after COVID-19

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**Introduction:** Persistent taste and smell losses are highly prevalent after COVID-19 infection, and new therapies are sorely needed.

**Objective:** In patients with a history of more than 30 days of onset of symptoms suggestive of COVID-19 and who had loss of smell or taste, did the use of any medication after the first symptom of this disease improve their chemosensory outcome?

**Methods:** The authors interviewed by phone or social network 714 patients with COVID-19-like symptoms. They were asked about their confirmation of SARS-CoV-2 infection and the therapies they used since the acute phase of the disease. All subjects must have had olfactory and/or taste dysfunction. The main endpoint was the self-reported total recovery of these chemosensory symptoms analyzed in a stepwise logistic regression analysis. All calculations were weighted by the demographic and clinical data of the patients.

**Results:** The percentage of patients who recovered totally from their chemosensory dysfunction was 34.9% (n= 249). Those who received one or more therapies achieved not a higher percentage of total olfaction or taste recovery than those counting only on spontaneous recovery. Notably, individuals who used oral zinc were less likely to recover their chemosensory symptoms completely.

**Conclusion:** Different therapies currently used during the first months after SARS-CoV-2 infection do not seem effective for complete olfaction and taste recovery compared to no treatment. Oral zinc is potentially harmful to the improvement of these senses.

#### 10566 Can Interleukin-1β increase older adults' susceptibility to aural fullness?

Licia Sayuri Tanaka Okamura, Regina Célia Poli Frederico, Gloria de Moraes Marchiori, Ana Carolina Marcotti Dias, Daiane Soares de Almeida Ciquinato, Marcelo Yugi Doi, Luciana Lozza de Moraes Marchiori

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**Introduction:** It is essential to identify reversible and preventable causes of aural fullness, tinnitus, and hearing loss. Aging organisms release proinflammatory cytokines in response to infections, autoimmune diseases, and acute or chronically increased inflammation – such as in presbycusis and noise-induced cochlear injury.

**Objectives:** To investigate the association between single-nucleotide polymorphism at position +3954 (C/T) in the promoter region of the IL-1β gene and susceptibility to aural fullness.

**Methods:** This was a case-control study with a sample of 108 independent older adults over 60 (68.00 ± 4.81) years of age. We obtained information on occupational noise exposure and aural fullness with interviews and analyzed genetic polymorphism with polymerase chain reaction, followed by NcoI restriction enzyme cleavage. Data were analyzed with the Chi-square test, using the 5% significance level.

**Results:** We analyzed 107 genetic procedures. A total of 17.07% of the older adults reported aural fullness and noise exposure. There was no statistically significant association between IL-1β gene polymorphism and aural fullness (p = 0.495, X<sup>2</sup> = 1.510), according to the Chi-square test.

**Conclusion:** This study suggests that there is no association between IL-1β gene polymorphism and susceptibility to aural fullness. On the other hand, indirect evidence of vascular inflammation associated with auditory symptoms could open up avenues for the prevention and treatment of most forms of auditory symptoms.

#### 10601 The effectiveness of treatments in patients with persistent olfactory dysfunction after Covid-19 infection

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**Introduction:** The olfactory dysfunction was established as an important COVID-19 infection manifestation, having atypical duration and recovery characteristics.

**Objectives:** The aim is to evaluate the effectiveness of treatments on persistent olfactory dysfunction after COVID-19.

**Data Synthesis:** It is a systematic revision through the analysis of articles having an on-line databasis. We identified 600 potentially relevant articles. After applying the PRISMA methods, five articles passed the criteria. A total of 123 patients were analyzed, in which 9 were in the observational controlled group, 50 treated with nasal corticoid spray and olfactory training, 50 received olfactory training, 1 with oral citoneurin and olfactory training, 1 with oral and intranasal corticoid, vitamins, zinc and olfactory training, 2 with oral metilcobalamine, 1 with intravenous methylcobalamin and methylprednisolone, and 9 with systemic prednisone, betamethasone, intranasal ambroxol and rinazine. The conservative and observational approaches did not completely reestablish olfactory function of any of the patients with persistent olfactory dysfunction after COVID-19. Specific resources can be decisive to recovery. The treatments that were more effective were based on steroids therapy, due to a faster and more complete recovery, along with olfactory training, considering the safety and low cost of the treatment. The importance of the early treatment was highlighted after the first stage of the disease. The average time for the dysfunction after the treatment was of 20 to 30 days.

**Conclusion:** The most efficient treatments for the persistent olfactory dysfunction after COVID-19 were the use of steroids and olfactory training.

**Keywords:** COVID-19, SARS-CoV-2, olfactory disorders.

#### 10621 Etiological prevalence of otomycosis in patients treated in a public health outpatient clinic in Manaus, Amazonas, Brazil

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**Introduction:** Otomycosis is a fungal infection of the outer ear, commonly found in tropical and subtropical regions. Predisposing factors: foreign bodies, heat, humidity, and poor personal hygiene. Fungal species *Aspergillus* and *Candida* are the main causes. Common symptoms: itching, inflammation of the external auditory canal, earache and otorrhea. Diagnosis via the patient's medical history, otoscopy and mycological examinations. Treatment is the removal of visible debris and fungal elements, as well as topical drugs such as antiseptics, acid solutions and antifungal agents.

**Objective:** Perform sample culture collected from patients with otomycosis and evaluate the most prevalent fungal species in patients treated at the Otolaryngology Department of the Adriano Jorge Hospital Foundation (FHJ) in Manaus, Brazil.

**Methods:** Longitudinal, prospective, analytical and descriptive study, with characterization of the most-affected

population via sampling of FHAJ patients with clinical suspicion of otomycosis between October 2018 and February 2020.

**Results:** Of the 20 samples, 70% tested positive for otomycosis through cultivation and direct microscopic examination. Of these samples, six were chronic suppurative otitis media (CSOM) with a greater prevalence of *Candida* (50%) compared to *Aspergillus* (16.6%) were identified. In the sample, the genus *Candida* sp. was identified in the entire population of patients immunosuppressed by diabetes mellitus.

**Conclusion:** The most prevalent fungal agents for otomycosis and CSOM were *Candida* and *Aspergillus*. The predominant symptoms were pruritus, hearing loss, otalgia, and most cases were unilateral. The most affected sex was male (30-50 years) and treatment with antifungal drops provided a good solution in all cases.

### 10623 Testing smell and taste functions during acute phase of COVID-19

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**Introduction:** The majority of studies evaluating the COVID-19 chemosensory complaints have used self-reported questionnaires. Unfortunately, these ratings do not reflect olfactory and gustatory capacities with reliability. Psychophysical tests were necessary despite the challenges of testing patients during the symptomatic period.

**Objectives:** Assess the olfactory and gustatory functions in patients with COVID-19 through validated tests during the first 15 days after the onset of symptoms.

**Methods:** One-hundred forty-three patients with confirmed SARS-CoV-2 by RT-PCR and without previous nasal or oral disorders were recruited. The olfactory function was tested by the University of Pennsylvania Smell Test (UPSIT, score: 0-40) and the taste by the Modified Global Gustatory Test (MGGT, score: 0-16). In addition, a subjective analysis of smell and taste was performed filling Visual Analog scales (VAS).

**Results:** The olfactory function mean of the participants was inside the severe microsmic range (UPSIT mean  $\pm$  SD: 24.5  $\pm$  13), with no significant difference between men and women ( $p=0.56$ ). No taste deficit was observed (MGGT mean  $\pm$  SD: 13.2  $\pm$  2.53). Self-reported smell perception correlated weak and positively with the UPSIT scores ( $r: 0.243$ ,  $p=0.05$ ), which did not occur with the taste testing ( $r: 0.09$ ,  $p=0.301$ ).

**Conclusion:** COVID-19 patients during the acute phase have severe microsmia, but the gustatory function is normal. Furthermore, we confirmed that VAS ratings were not adequate for chemosensory testing.

**Keywords:** smell loss; COVID-19; hypogeusia; smell modalities.

### 10628 Mean age and reasons for referral to an outpatient clinic for childhood deafness

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**Introduction:** Porto Alegre's Clinical Hospital (HCPA) is a regional reference center for the treatment of hearing loss in children. The ages at and reasons for which these children arrive are quite varied which may impact subsequent hearing and language development.

**Objective:** To analyse the mean age and reasons for referral to HCPA's pediatric hearing loss outpatient clinic.

**Methods:** The medical records of 290 patients referred for a first evaluation at HCPA's Pediatric Auditory Rehabilitation outpatient clinic from January 2018 to July 2021 were analyzed.

**Results:** The mean age of referral was 42.3 months (range 1-139 months). Patients referred because of an altered neonatal hearing screening test (24.14% of all patients) were, on average, 14.5 months old; those referred because of delayed language development (11.72%), 45.5 months old; those with a possible diagnosis of autism

spectrum disorder - ASD (3.1%), 84.9 months old; those with risk factors for deafness but normal neonatal screening (3.79%), 25 months old; those referred for cochlear implant surgery (36.21%), 55.2 months old; those with a unilateral inner ear malformation (5.86%), 54.5 months old; and those with bilateral malformations (0.69%), 19 months old. 14.48% of scheduled patients did not attend the appointment.

**Conclusion:** In this sample, the most prevalent reason for referral was evaluation for cochlear implant surgery. Overall, children were, on average, 42.3 months at referral. Patients with a neonatal screening alteration were the youngest group at referral (14.5 months), highlighting the importance of this test; children with suspected ASD were the oldest (88.9 months).

### 10632 Olfactory and gustatory capacities are not related to COVID-19 severity

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**Introduction:** Disorders of smell and taste are reported in more than 80% of patients infected by the new coronavirus. Importantly, it is not established the relationship between olfactory and taste disorders and the severity of COVID-19, one factor that could contribute to a better follow-up after initial screening.

**Objective:** To determine whether there is an association between COVID-19 severity and smell and taste disorders through validated tests.

**Methods:** A cross-sectional study was conducted with evaluation of olfactory and gustatory function of 100 patients diagnosed with COVID-19 RT-PCR Test. Patients were divided into two groups according to the severity of SARS-CoV-2 infection (mild or severe disease). A stepwise multivariate logistic regression was performed to identify risk factors for smell or taste losses.

**Results:** Smell and taste abilities were not different between mild or severe COVID-19 groups ( $p = 0.41$  and  $p = 0.57$ , respectively). They were also not different regarding the prevalence of phantosmia (13.5% mild cases vs. 19.4% severe;  $p = 0.4$ ) or parosmia (25% mild cases vs. 19.4 severe;  $p = 0.5$ ). No association between sex, age, ethnicity, smoking, education, and olfactory or gustatory function was found.

**Conclusion:** The olfactory and gustatory functions are not good predictors of the severity of Covid-19. Furthermore, sociodemographic and clinical characteristics of the participants also did not interfere with the case outcome.

**Keywords:** 2019-nCoV; anosmia; dysgeusia; modalities, sensorial.

### 10635 Mean age at cochlear implantation in children with prelingual deafness according to etiologies

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**Introduction:** Timely diagnosis and treatment of hearing loss in children is imperative. When cochlear implantation is indicated, it must be performed as early as possible for adequate language development. Some etiologies of hearing loss allow for a diagnosis earlier than others.

**Objective:** To evaluate the mean age of children with prelingual deafness who underwent cochlear implantation, and compare mean age between different etiologies of hearing loss.

**Methods:** The medical records of 212 pediatric patients who underwent cochlear implantation at Porto Alegre's Clinical Hospital from January 2009 to December 2020 were analyzed.

**Results:** The overall mean age of cochlear implant was 43.2 months ( $\pm 26.6$ ). In 53.77% of patients the etiology was indeterminate and the mean age for this group was 42.4 months. Patients with hearing loss due to perinatal complications were the second largest



subgroup (17.92%); mean age at cochlear implant was 37 months. The remaining etiologies and mean ages were: meningitis (6.13%), 48.7 months; GJB2 or GJB6 mutation (5.66%), 37.4 months; genetic syndrome (5.19%), 37.8 months; inner ear malformation (4.25%), 71.1 months; neonatal infection (2.36%), 33.8 months; auditory neuropathy (2.36%), 40.8 months; and central etiology (2.36%), 39.4 months.

**Conclusion:** The overwhelming majority of patients underwent cochlear implantation between the first and sixth year of life. Three patients (two with undetermined etiology, one with an inner ear malformation) underwent surgery at a very late age (17 - 18 years). Removing these outliers, the mean ages at cochlear implantation were very similar between subgroups.

### 10636 Otohelmet – A safe alternative?

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**Objectives:** This paper aims to illustrate and disseminate a practical alternative for performing otorhinolaryngological outpatient procedures that generate aerosols and, in this way, discuss the difficulties encountered during their performance.

**Methods:** The head of the Rhinology and Snoring department at the BOS designed a helmet made of disposable material, made up of a wire frame wrapped in a transparent plastic bag. Before performing tests such as flexible nasofibrolaryngoscopy or rigid telaryngoscopy, the patient was informed about its use, oriented about the benefits and care. The examination and a questionnaire were carried out to the examiner (residents and heads of the service) to grade the difficulty in carrying out the examination (0-10).

**Discussion:** Due to the Pandemic caused by SARS-CoV-2, a highly contagious virus that can be transmitted through interpersonal contact, elective procedures were suspended in some services, leaving the population unattended. In order to avoid the cancellation of many exams and elective procedures that generate aerosols and following the guidelines of the Hospital Infection Control Service (SCIH) of our otolaryngology service, we use the protective equipment created and NUMEROSS.

**Conclusion:** The equipment created is intended to offer a practical alternative with good acceptance by the patients tested for the realization of elective exams that are known to generate aerosols; and, in this way, maintain a quality and safe otorhinolaryngological care for the patients and physicians involved.

### 10638 Experience of a public pediatric cochlear implantation center during COVID-19 pandemic in a developing country

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**Background:** During the 2020 pandemic, many surgeries were adjourned around the world. Cochlear implant is a time-sensitive procedure, especially for prelingually deaf patients. We evaluated the impact of COVID-19 on pediatric patients undergoing cochlear implant during the pandemic.

**Methods:** A prospective cohort study with children with bilateral sensorineural profound hearing loss who performed cochlear implant (CI) surgery during the COVID-19 pandemic in 2020. We evaluated the incidence of SARS-CoV-2 symptoms and diagnosis of patients and their relatives before and after hospitalization for the surgery.

**Results:** No patients or relatives were diagnosed with SARS-CoV-2 infection on the days before and after CI surgery. Medical staff was also tested after the period of surgeries and no one presented positive serology.

**Conclusion:** Given the smaller susceptibility of children to SARS-CoV-2 infection, the drawbacks of our health system, and the

extra sanitation measures, our study suggests that the benefits of maintaining cochlear implant surgeries for prelingually deaf children during the pandemic seem to outweigh the risk of infection.

**Keywords:** COVID-19; hearing loss; cochlear implant.

### 10652 Epidemiological profile of surgically treated facial trauma in a university hospital: A retrospective study

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**Introduction:** Facial fracture is a common condition for searching the emergency department. There is a great impact in economy, once most patients are under 50 years old, especially between 21 and 30 years old. Most fractures occur in the middle third of the face, and nasal fracture is the most prevalent. The most common mechanism of injury is traffic accident, with near half of the cases, followed by domestic violence. Treatment involves either clinic or surgical management.

**Objective:** Evaluate epidemiological profile of patients undergoing surgical treatment for facial fractures in a trauma reference University Hospital of Paraná's state capital, Curitiba.

**Methods:** Data were collected from all patients undergoing surgical treatment in the previous described hospital, from April 2020 to March 2021. Following variables were evaluated: age, gender, mechanism of injury, fractured bone and affected third. Simple percentual analysis was described.

**Results:** A total of 149 patients were evaluated. Male patients were most prevalent, with 123 cases (82.5%). The most common age was 18 to 24 years old (38%), followed by 25 to 34 and 35 to 44 years old. Most common mechanism of injury was traffic accident (39%) followed by aggression (31.5%). The middle third was the most affected (65%), followed by under (49%) and upper (9%) thirds respectively. Nose fracture was more prevalent (52.3%), followed by jaw fracture (44%).

**Conclusion:** Most prevalent facial trauma among involves male patients, traffic accidents and upper third. This data suggests nose fractures as the most common facial fracture.

### 10659 Analysis of the prevalence of the Connexin 26 35delG mutation, risk factors and degree of hearing loss in pediatric patients in a pediatric deafness outpatient clinic

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**Introduction:** Mutations in the Connexin 26 (GJB2) gene determine hearing loss. This occurs because the protein structure of the intercellular junctions of sensory hair cells is altered, harming the removal of potassium ions and, therefore, interfering on the cell's depolarization capacity.

**Objective:** This study aimed to analyze the prevalence of the 35delG mutation in the GJB2 gene, the presence of risk factors and the degree of hearing loss in patients referred to the pediatric deafness outpatient clinic.

**Methods:** medical records of 220 patients who underwent the molecular study of Connexin 26 using the PCR method (polymerase chain reaction) were analyzed.

**Results:** 26 patients (11.82%) presented the 35delG mutation, 16 (7.27%) were homozygous and 10 (4.55%) were heterozygous. From those with mutations, 22 presented information on the degree and risk factors for childhood deafness. 20 (90.91%) had a profound degree and 2 (9.09%) had a severe degree. Regarding risk factors, 10 (45.45%) had no factor; 5 (22.73%) reported a family history of deafness; 3 (13.64%) multiple factors; 3 (13.64%) recurrent acute otitis media; 1 (4.55%) consanguinity.

**Conclusion:** The study findings corroborate that the degree of profound hearing loss is the most common intensity found in



patients with the GJB2 mutation, as well as its association with the family history of hearing loss. Furthermore, genetic diagnosis enables an early treatment, which is essential in cases of hearing loss in childhood.

**Keywords:** Connexin 26, 35delG mutation, deafness.

#### 10672 Age at cochlear implantation of children in the Brazilian public and private health care systems

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**Introduction:** In children with hearing loss and an indication for cochlear implantation (CI), earlier surgery predicts better language acquisition and development. In this context, inequalities between the public and private health systems in Brazil must be studied.

**Objective:** To compare the median age of children who underwent CI at Porto Alegre's Clinical Hospital (HCPA) through the Unified Health System (SUS) and through private health insurance.

**Methods:** The medical registers of 241 patients who underwent CI at HCPA from January 2009 to December 2020 were analyzed. The Wilcoxon rank sum test with continuity correction was performed for statistical analysis, using R version 4.0.5.

**Results:** Overall mean age at CI of the sample was 41.77 months (interquartile range (IR): 26 – 52). Mean age at CI of the SUS group (n=200) was 43.54 months (IR: 30.75 – 54), with a maximum value of 224 months. Mean age of the insured group (n=41) was 33.15 months (IR: 19 – 45), with a maximum value of 112 months. Median age at CI of the SUS and insured groups were 40 and 27 months, respectively; the distributions in the two groups differed significantly (Mann-Whitney W = 2780.5, two-tailed p = 0.001177).

**Conclusion:** Median age at CI for SUS patients was higher than for insured patients (p < 0.01). Maximum age was also much larger in the SUS group. These results suggest that patients in the Brazilian public health system undergo CI at a later age than insured patients, which may directly impact these children's development.

#### 10673 Correlation between severity markers and late assessment of olfactory function in post-COVID-19 patients

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**Introduction:** Persistent olfactory dysfunction in post-COVID-19 patients is a frequent complaint with implications for daily life. The correlation between the severity of infection and the presence of olfactory dysfunction remains controversial, although some studies have already correlated a worse olfactory impairment in the acute phase with greater pulmonary involvement tomography and worse clinical outcomes.

**Objectives:** To evaluate the relationship between late olfactory function in post-COVID-19 patients and severity markers in the acute phase.

**Methods:** Cross-sectional, analytical and observational study. 123 patients with a history of hospitalization for COVID-19 were recruited. The olfactory assessment was performed using the Connecticut Chemosensory Clinical Research Center olfactory test (CCCRC), and data from the medical records regarding severity of the disease were reviewed: degree of pulmonary involvement on computed tomography, smoking, need for intensive care unit (ICU) and orotracheal intubation (OTI).

**Results:** The mean time from symptom onset and smell assessment was 172 days. 38.1% were smokers, 40.2% required ICU, and 24.8% OTI. There was a significant association between age over 60 years and worse score on the CCCRC (threshold and identification). Current or previous smoking was associated with a lower CCCRC threshold score.

**Conclusion:** The present study suggests that smoking and advanced age are correlated with worse late olfactory function in post-COVID-19 patients. There was no evidence of influence of need for OTI, ICU or degree of pulmonary involvement in the severity of olfactory dysfunction after COVID-19.

**Keywords:** coronavirus, SARS-CoV-2, anosmia, olfactory dysfunction, olfactory test.

#### 10677 Correlation between olfactory self-assessment and psychophysical tests in post-COVID-19 patients

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**Introduction:** Olfactory self-assessment methods are characterized by their easy application. However, the reliability of these tests is still controversial when compared to psychophysical tests. Among the quantitative forms of subjective assessment of smell, the application of the Visual Analog Scale (VAS) stands out. Due to the COVID-19 pandemic, olfactory tests have gained great importance in the evaluation of these patients.

**Objectives:** To compare the precision data through subjective assessments of smell (VAS) with results obtained in the Connecticut Chemosensory Clinical Research Center Olfactory Test (CCCRC) and in the Alcohol Sniff Test (AST) in post-COVID-19 patients.

**Methods:** Cross-sectional evaluation of smell in 144 post-COVID-19 patients regarding VAS, and the results in CCCRC and AST. The olfactory threshold and smell identification scores were also considered separately.

**Results:** In the present study, significant correlation between CCCRC and AST was found (p=0.001). When evaluating the association between VAS and AST, a significant difference was identified between the 3 AST classifications (p=0.001). However, there was no association between EVA results and CCCRC ratings (p=0.082).

In evaluating the correlation between CCCRC (threshold and identification), AST and VAS, statistically significant correlations (p<0.001) were found between CCCRC x AST, CCCRC threshold x AST and VAS x AST. However, the estimated correlation coefficients are low and correspond to weak correlations.

**Conclusion:** Due to the difficulty of quantifying olfactory disorder in post-COVID-19 patients and low correlation between VAS and psychophysical tests, we do not recommend subjective testing isolated.

**Keywords:** COVID-19, smell, olfactory dysfunction, CCCRC, AST.

#### 10686 Evaluation in adherence to the treatment of sublingual immunotherapy for allergic rhinitis

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**Introduction:** Allergic rhinitis is an immunoglobulin E-mediated inflammation of the nose mucosa, in response to an inhaled allergen. Clinically, it presents with nasal obstruction, runny nose, nasal and / or ocular itching and sneezing. For its symptomatic treatment, control of the environment is essential and nasal corticosteroids are the gold standard in the adult and pediatric population. Another form of treatment is immunotherapy, changing the response to the allergen via immunological tolerance mechanism in contrast. SCIT is applied weekly to monthly while SLIT is done daily by the patient. For effective treatment of chronic disease, the period of treatment and maintenance discipline must be respected.

**Objective:** To analyze the main reasons why the patient quits treatment with sublingual immunotherapy. Methodology: Prospective and linear study whereupon patients of IPO Hospital who were undergoing treatment with sublingual immunotherapy for allergic rhinitis and dropped the proposed treatment for any reason.

**Results:** 148 patients took part in the study sample, 79 women and 69 men. The average duration of treatment for dropout patients was 8.3 months. Cost was the most cited reason, 47.3% of all patients claimed to be a problem for treatment; followed by irregular use and no improvement with treatment, each one with 23%. Side effect came as a reason in 9.5% and still 25% of the interviewees mentioned several other reasons as obstacles to treatment.

**Conclusion:** The present study concludes that the main barriers found for treatment adherence are long time, cost and regularity of use.

**Keywords:** allergic rhinitis; sublingual immunotherapy; allergy; accession.

#### **10687 Association between the severity of obstructive sleep apnea and brain natriuretic peptide: A systematic review**

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Obstructive sleep apnea (OSA) is a considerably prevalent disease among the adult population. OSA is associated with significant cardiovascular, cerebrovascular, metabolic and hormonal comorbidities. The disordered breathing events that occur in patients with OSA are associated with a profile of perturbations that include intermittent hypoxia, oxidative stress, sympathetic activation, and endothelial dysfunction. All these mechanisms are also mediators of cardiovascular disease. In terms of cardiovascular diseases, such as hypertension, coronary heart disease, arrhythmia and heart failure, biomarkers like troponine, creatine kinase isoenzyme MB (CK-mass) and brain natriuretic peptide (BNP) are already well-known and widely used. BNP is known as a marker of increased intracardiac pressure and it can be found in high blood levels even before the development of a heart disease. However, BNP is also associated with acute ischemia. In order to elucidate if BNP can be a reliable biomarker for monitoring OSA and as a risk factor for cardiovascular consequences a systematic review was performed to combine informations from the international scientific literature.

#### **10688 Epidemiological profile and of otorhinolaryngological manifestations in patients diagnosed with COVID-19 in Hospital IPO**

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**Introduction:** The year 2020 was marked by the pandemic of COVID-19, a new type of coronavirus. It has a wide spectrum of action and can even be fatal.

**Material and Methods:** This is a prospective cross-sectional study, conducted in the form of an interview, via phone call, with patients who were diagnosed with COVID-19 at the Hospital IPO from March to July 2020.

**Results:** Thirty-six patients, with a mean age of 36.3 years, mostly female (63.9%) were interviewed. The most frequent symptoms were headache, smell and taste. There was statistical evidence of an association of olfactory change with taste change and nasal obstruction.

**Conclusion:** Smell alteration is a strong predictive factor for suspected COVID-19.

**Keywords:** COVID-19; otorhinolaryngology, anosmia.

### 10296 Maxillary mucocele with transient visual complication: Case report

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**Introduction:** Mucoceles are cystic formations of an expansive character that can cause serious complications at the orbital and intracranial levels. The frontal and ethmoidal sinuses are the most affected. Early diagnosis and surgical treatment avoid complications.

**Objectives:** To report a rare case of maxillary mucocele with transient visual complication, emphasizing the importance of patient follow-up to elucidate the cause of the patient's complaints.

**Case report:** Male, 43 years old, decompensated diabetic, complaining of nasal obstruction and progressive bulging in the left malar region for 4 months, without visual complaints. He brought a CT scan of the paranasal sinuses showing a large tumor of the left maxillary sinus with bone erosion and orbit invasion. Nasal endoscopy was performed showing significant bulging of the lateral wall in the left nasal cavity ipsilateral septal deviation. The patient evolved with diplopia, and ophthalmology evaluation was requested and surgery was indicated. Preoperatively, the patient reported improvement of diplopia and malar bulging, ruling out neoplastic suspicion, the main differential diagnosis. Left maxillary sinusotomy was performed with dark secretion at the anastomosis. Material was sent to pathology. Patient evolved with total improvement of symptoms, without sequelae. The histopathological report revealed chronic inflammatory infiltrate and absence of malignancy.

**Conclusion:** Maxillary mucocele is a rare cystic formation in the maxillary sinus that can cause several ophthalmic complications. The identification of tomographic signs and early treatment favor the resolution of the case without persistent complications.

### 10297 The pharyngo-cervico-brachial variant in Guillain-Barre Syndrome: A case report

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**Introduction:** Guillain-Barre Syndrome (GBS) is an immune-mediated disease with myelin involvement that leads to proximal peripheral nerves dysfunction. The pharyngo-cervico-brachial variant is characterized by bulbar paralysis with an acute or subacute onset of weakness in the upper limbs, neck, and oropharyngeal muscles.

**Objective:** To report a rare case of dysphagia and hoarseness.

**Case report:** A 45-year-old woman presented to otorhinolaryngology attendance with dyspnea after efforts, dysphonia, dysphagia, and neck pain four weeks after an upper airway infection. She had already undergone a thoracic tomography, arterial gasometry, serology, and PCR which ruled out COVID-19 infection. She also denied previous surgery or oral intubation. Consciousness, facial, ocular, tongue, and lower limb movements were preserved.

Videolaryngoscopy evidenced bilateral vocal folds paresis, confirmed by electromyography with reduced amplitude of action potentials in recurrent laryngeal nerves. Anti-glycoside antibody and genetic panels for motor neuron diseases corroborated GBS diagnosis. Gadolinium-enhanced MRI of cranium, neck, and thorax had hypersignal in both vocal folds without other abnormalities. Normal levels of aldolase and creatinephosphokinase denoted no muscle damage.

She performed motor and respiratory physiotherapy, but mechanical ventilation was unnecessary. Phonological support and the thickener utilization controlled dysphagia. Pregabalin 50mg relieved pain. The intravenous human immunoglobulin treatment was effective, with gradual symptom improvement. Three months later, she underwent Corona Vac vaccination, without side effects. Phonological therapy manages her residual dysphonia.

**Conclusion:** The lumbar puncture or electrophysiological studies are helpful, but not required for SGB clinical diagnosis. Although this variant is infrequent, it may be considered due to its morbimortality.

### 10298 Congenital nasal pyriform stenosis: An uncommon cause of nasal obstruction in neonates

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**Introduction:** Congenital pyriform stenosis is a rare condition that occurs due to a significant growth of the medial nasal process of the maxilla in neonates, which narrows the anterior nasal cavity. The symptoms are consequences of the increased upper airway resistance, such as nasal obstruction or acute respiratory insufficiency.

**Objective:** To describe an unusual differential diagnosis of nasal obstruction in a neonate.

**Resumed report:** A female newborn presented a congenital upper airway obstruction, snoring, and acute respiratory failure requiring orotracheal intubation and intensive care unit support. The nasal endoscopy evidenced a decrease in the lumen of the right nasal cavity and pyriform aperture stenosis, whose diameter was less than 4.5mm according to the CT scan. The surgical approach was indicated and performed with a sublabial incision, the pyriform aperture with a diamond drill, excess membranous tissue excision, and the oral cavity mucosa was sutured with a plain 4-0 catgut, allowing adequate permeability of the nasal cavity. The bilateral nasal splint was fixed by a 4-0 nylon thread for 28 days after surgery. In addition, the neonate required hospitalization for 52 days postoperatively in an intensive care unit with a nasal endoscopic follow-up and sedation to remove synechiae in the right nasal cavity until the respiratory symptoms' improvement.

**Conclusion:** Congenital pyriform aperture stenosis may be associated with an upper airway obstruction that may be life threatening. Surgical correction is the chosen approach in those with acute respiratory insufficiency whose clinical treatment failed.

**Keywords:** pyriform aperture; newborn; congenital nasal stenosis.

### 10300 Left cavernous sinus thrombosis due to complicated sphenoid sinusitis: Case report

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**Introduction:** Septic cavernous sinus thrombosis is a rare complication with high morbidity and mortality. Its etiology is traumatic lesions on the face, pharyngitis, otitis, rhinosinusitis, orbital, facial and odontogenic infections. Clinically manifests as ptosis, chemosis, proptosis, diplopia, meningeal irritation, headache, fever and prostration. Imaging tests confirm the diagnosis, and treatment is with antibiotic therapy, anticoagulation and surgery.

**Objectives:** This report describe a septic cavernous sinus thrombosis case in a 68-year-old patient, the treatment and evolution during hospitalization.

**Resumed report:** A 68-year-old patient went to the infectious diseases service of the Hospital Universitário Regional do Norte do Paraná, in Londrina-PR, due to suspected dengue encephalitis. On admission, she developed retro-orbital pain, chemosis, ptosis, proptosis, reduced visual acuity and extrinsic mobility of the left eye, fever and prostration. Cranial and orbital imaging studies demonstrated filling with soft tissue density material of the sphenoid sinuses bilaterally and posterior ethmoid sinuses on the left, edema in the orbital fat, and filling failure in the cavernous sinus and ophthalmic vein on the left. The patient received broad-spectrum antibiotic therapy, anticoagulation and surgical intervention draining the left sphenoid sinus and posterior left ethmoidal sinus, with good evolution and regression of practically all symptoms by discharge.

**Conclusion:** Diagnosing septic cavernous sinus thrombosis is difficult, and clinical suspicion is important depending on the symptoms of the patient. Furthermore, even with high morbidity and mortality, if diagnosed and treated correctly and early, the patient can have a good prognosis.

### 10302 Main language changes in a patient diagnosed with Bilateral Polymicrogyria Perisylvian

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**Objective:** Report a case of Bilateral Perisylvian Polymicrogyria in outpatient follow-up at our service, as well as its evolution.

**Case description:** child with severe dysarthria, learning impairment and previous generalized tonic-clonic seizures. He is currently being followed-up in pediatric otorhinolaryngology and phoniatrics and speech therapy at the Otorhinolaryngology Hospital of Sorocaba (HOS-BOS), using oral anticonvulsants and preserved functionality.

**Final considerations:** The small number of published studies on perisylvian bilateral polymicrogyria demonstrates the need to understand more about it. Cognitive deficits, seizures and language development disorders are commonly found in patients with this diagnosis. Therefore, the importance of early diagnosis and follow-up is emphasized in order to carry out adequate supportive treatment.

### 10303 Solid ameloblastoma

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**Introduction:** Ameloblastoma is a benign odontogenic epithelial tumor, mainly involving the mandible and maxilla. Clinically painless with slow growth, but locally expansive with diagnosis in an advanced state after localized facial enlargement, tooth mobility and displacement, and nasal obstruction.

**Objectives:** To describe the surgical management of solid ameloblastoma.

**Resumed report:** Male, 73 years old, presents progressive hemifacial discomfort with chronic bilateral nasal obstruction worse on the right side, hyposmia and objective cacosmia. Anterior rhinoscopy shows a pinkish-yellow lesion with almost total occlusion of the right nasal cavity(RNC). Videonasofibroscope showed a lobulated, capsulated, pinkish-yellowish lesion involving the 1st and 2nd basal lamellae and extending to the posterior region of the RNC. Nuclear magnetic resonance showing an expansive and infiltrative lesion, with heterogeneous post-contrast impregnation in the right maxillary sinuses, with erosion of the posterolateral wall and of the maxillary alveolar ridge extending to the jugal mucosa and zygomatic arch. Nasal endoscopic surgery was performed associated with the Caldwell-Luc technique for tumor removal. Anatomopathological examination showed a basaloid pattern lesion with immunohistochemistry showing a follicular and plexiform arrangement, peripheral cell palisade, no cell pleomorphism, positive p53 antibody.

**Conclusion:** The successful management of ameloblastoma is the early diagnosis, correlating the clinical manifestations, radiological and histopathological findings to establish the treatment. Due to its propensity to locoregional invasion and risk of recurrence, the radical surgical approach has been the most effective, promoting better quality of life for the patient.

### 10304 Esthesioneuroblastoma: Case report, differential diagnosis of paraganglioma

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**Introduction:** Esthesioneuroblastoma is rare malignant tumor originating from basal cells of the olfactory neuroepithelium, comprising 5% of sinus malignancies. Its incidence is bimodal, with two peaks, 2<sup>nd</sup> and 6<sup>th</sup> decades of life. Its clinical condition involves nasal obstruction, epistaxis, nasal discharge and pain, usually

unilateral. Diagnoses include CT to assess bone erosion, paranasal sinus MRI to visualize perineural extent, and biopsy. Treatment lies in complete surgical resection, through bifrontal craniotomy and lateral rhinotomy. Post-surgical radiotherapy guarantees a better prognosis and less toxicity.

**Objectives:** Demonstrate the presentation of esthesioneuroblastoma and the importance of correct differential diagnosis.

**Resumed report:** M.M.L., 56 years old, female, complaining of right ear pain associated with edema in the right hemiface and submental region and nasal obstruction in October 2018, denying epistaxis and rhinorrhea. The CT scan of the paranasal sinuses showed an expansive hypodense polypoid lesion located in right nasal cavity. Biopsy and immunohistochemistry were performed, revealing an initial diagnosis of paraganglioma. Endoscopic surgical resection was performed with pre-surgical embolization and material sent for analysis. In the pathological examination, a lesion compatible with an epithelioid malignant neoplasm and immunohistochemistry confirmed a new diagnosis of esthesioneuroblastoma. The patient is under oncological follow-up.

**Conclusion:** Esthesioneuroblastoma is neoplasm with nonspecific symptoms and delayed presentation, culminating in late diagnosis. The present work highlights the importance of including this pathology as differential diagnosis of expansive intranasal lesions. The need for early diagnosis is also highlighted, given the worsening of the prognosis when there is dissemination to regional lymph nodes.

### 10305 Surgical treatment of CSF fistula: A series of cases

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**Introduction:** Nasal CSF fistula represents an accumulation of cerebrospinal fluid (CSF) in the nasal cavity in communication with the subarachnoid space. It includes traumatic and non-traumatic etiology. High resolution MRI and CT scans of the cranium and paranasal sinuses are essential tests in the localization of LF and beta-2 transferrin is the gold standard test for the detection of CSF. Endoscopic repair generates fewer complications than intracranial, allowing a better visualization of the defect. The graft is preferably obtained from the middle or inferior turbinate, with a longitudinal incision on the lateral edge separating the periosteum from the nasal mucosa, with a flexible technique depending on the location of the defect.

**Objectives:** To demonstrate the postoperative result of the approach to CSF fistula with the nasal turbinate graft technique.

**Resumed report:** The patients approached were females aged between 22 and 50 years. The main complaint presented was unilateral hyaline rhinorrhea, three of them on the left and five on the right. There was also a report of previous head trauma for over ten years. For diagnosis, clinical history, videonasofibroscope, computed tomography and/or magnetic resonance imaging were associated. Through nasal endoscopic access, an inferior/middle turbinate osteomucosal graft was performed with a concha-septo-concha stitch. All patients evolved asymptomatic in the postoperative period.

**Conclusion:** The results of the present study indicate a high resolvability of the osteomucosal autologous graft from the inferior/middle turbinate in improving the post-surgical clinical picture of patients with different age groups.

### 10308 Efficacy of intratympanic corticosteroids in the treatment of ménière's disease. A systematic review

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**Introduction:** Meniere's disease (MD) is a chronic condition of the inner ear which includes sensorineural hearing loss, episodic vertigo,



and tinnitus. An increase in the hydraulic pressure and endolymphatic volume within the inner ear system is also associated. Intratympanic (IT) gentamicin, the standard treatment for refractory MD, reduces vertigo, but can damage vestibular function and worsen hearing.

**Objective:** To assess the effectiveness and safety of intratympanic use of corticosteroids for the treatment of MD.

**Data Synthesis:** The authors searched PubMed/MEDLINE database, using the following strategy: (((steroids OR corticosteroids) AND (intratympanic OR transtympanic)) AND Meniere's disease) AND treatment). Among the 163 references obtained, only 18 clinical studies have been elected to this review. Dexamethasone is a potent agent to prevent the progression of hearing loss and controlling vertigo in MD. A reduction of the endolymphatic hydrops is detected by the electrocochleography after a short period of treatment. There is no significant difference between the protocols either a single injection or a series of four injections. The best balance in terms of hearing change and complete vertigo control is associated with IT steroid plus high-dose betahistine. Intratympanic steroid alone and high-dose betahistine alone are less effective. Unfortunately, most studies showed no difference in tinnitus scores. Others evidenced only a little decrease of tinnitus intensity. Systemic absorption proved to be insignificant.

**Conclusion:** Intratympanically administered corticosteroid is an effective and safe treatment for MD with the advantage of not presenting the same risks for hearing loss as gentamicin.

**Keywords:** Meniere's disease; steroids; treatment.

### 10309 Case report - cyst of Thornwaldt

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**Introduction:** Described in 1885 by Thornwaldt, Thornwaldt's cyst is a congenital midline cyst that appears in the pharyngeal bursa due to failure in notochord regression. Clinically, the patient may be asymptomatic, or manifest with symptoms ranging from headache, post-nasal discharge and nasal obstruction. Diagnosis is carried out through imaging tests, and confirmation through anatomic pathological examination. Are mostly prevalent in males, and diagnosed during the second and third decade of life. Treatment is surgical.

**Objectives:** This study reports the case of a patient with a cystic lesion in the nasopharynx.

**Resumed report:** A 40-year-old male patient comes for his appointment complaining of snoring and nocturnal awakenings, nasal obstruction and discomfort when performing physical exercise. He denies otological and pharyngeal complaints. Fiberoptic exam was then requested, with the presence of a cystic lesion in the cavum region. Tomography of the facial sinuses showed an isodense lesion, in the midline of the rhinopharynx, without any contrast enhancement. The patient underwent a surgical procedure of excision of a lesion in the nasopharynx. The anatomopathological result revealed a nasopharyngeal cyst (Thornwaldt's cyst). Patient progresses well, with great improvement in his complaints.

**Conclusion:** Thornwaldt's cyst may have a differential diagnosis with several other lesions, in the nasal cavity. Depending on its size and evolution, symptoms vary greatly. In this case presented, it led to obstructive nasal symptoms and interfered with the patient's quality of life. With surgical treatment, there was a great improvement in the complaint, and the patient is clinically well to date.

### 10313 The incidence of acute pharyngitis and acute tonsillitis in Brazil

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**Introduction:** Acute pharyngitis and tonsillitis are infections of the upper airways, caused by viruses or bacteria that affect the pharyngeal mucosa and palatine tonsils.

These infections are the most common causes of seeking medical care, contributing to a share of health expenditures. According to the World Health Organization, hospitalizations for these pathologies are higher in developing countries.

**Objective:** Describe and analyze the epidemiological profile of hospitalizations for acute pharyngitis and acute tonsillitis in Brazil.

**Methodology:** This is an epidemiological study using the data system of the Department of Information of the Unified Health System (DATASUS). Information from 2015 - 2020 in Brazil was consulted.

**Results and Conclusions:** In Brazil there were 71,644 hospitalizations for acute pharyngitis and tonsillitis. The northeast region is the most affected, representing 30,330 (42%) and the state of Bahia has 10,994 patients. The least affected region is the central west 6,844 (9%) and the state with the lowest incidence is Mato Grosso do Sul with 1,121 cases. Regarding the age group, children from 1 to 4 years old represent 32% of the total and elderly people over 80 years old are the least approached in the acute phase, but they present risks for complications. Thus, the implementation of public policies in the study and preventive measures are of great relevance, because with the reduction of incidence, in addition to improving the quality of life of the population, there may be a decrease in future public spending.

**Keywords:** epidemiology, acute pharyngitis, acute tonsillitis.

### 10314 Epidemiological profile of hospitalizations for otitis media, mastoiditis and chronic sinusitis in the state of Mato Grosso

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**Introduction:** Otitis media, mastoiditis and chronic sinusitis are common diseases both in childhood and in the adult population, and more and more pediatricians and otorhinolaryngologists are becoming aware of the magnitude of this problem.

In Brazil 206,033 people are hospitalized for these diseases, and in the central west region 14,225 people were affected, thus representing a significant number.

**Objective:** Describe and analyze the epidemiological profile of hospitalizations for otitis media, mastoiditis and chronic sinusitis in the state of Mato Grosso.

**Method:** This is an epidemiological study carried out by consulting the data system of the Department of Information of the Unified Health System (DATASUS). Information referring to the year 2010 - 2020 in the state of Mato Grosso was consulted.

**Results and Conclusion:** At Mato Grosso, hospitalizations for these diseases are represented by 1268 people, with a prevalence of children aged 1 to 4 years, with 309 cases and the elderly aged 70-79 years are the least affected, with 16 cases. In 2019, the highest number of hospitalizations occurred, with 129 cases. Mastoiditis represents the highest percentage in the study, 56.15% (712) of the cases.

Of the total number of cases, in adulthood, females are the most affected, representing a controversial interpretation of other studies, as men are at greater risk due to greater exposure. For this, it is necessary to subsidize policies to face this phenomenon in order to reduce their impact on the age and demographic structure, thus also reducing complications.

**Keywords:** epidemiology, otitis, mastoiditis and sinusitis.

### 10315 Frey's Syndrome: Case report

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**Introduction:** Frey's Syndrome or Auriculotemporal Syndrome is characterized by the classic triad: sweating, heat and hyperemia in the face during eating, especially in the parotid and malar regions. It can be developed after trauma, infection, parotidectomy or temporomandibular joint surgery, being initiated by any taste provocation.



**Objectives:** To report a rare case of Frey's syndrome, after resection of squamous cell carcinoma of the skin with invasion of the parotid, treated with transdermal scopolamine 10mg/g.

**Case report:** Patient, 55 years old, male, without comorbidities, with poorly differentiated squamous cell carcinoma of the skin and ulcerated on the face, with subcutaneous and left parotid invasion. Computed tomography of the neck showed hypodense nodular formation with peripheral impregnation, by means of contrast, measuring approximately 22x13x15 mm, located between the inferior portion of the left parotid gland with infraparotid extension. Patient underwent to a total parotidectomy and lesion excision in July 2020 and subsequently underwent to 25 adjuvant radiotherapy sessions ending in November 2020. Then, an iodine test was performed, with a positive result. He returned to the clinic 3 months later, complaining of sweating, heat and hyperemia in the left parotid region when feeding. Considering its anticholinergic effect, transdermal scopolamine treatment was started 15 minutes before meals. The patient reported an effective reduction in salivary secretion and denied adverse reactions with the treatment.

**Conclusion:** Frey's Syndrome had a low incidence of complication in our service. Treatment with 10mg/g scopolamine transdermally, before meals, was able to reduce the symptoms associated with the syndrome.

### 10317 A case of multiform erythema

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**Introduction:** Multiform erythema manifests with bubbles, ulcers, erosions and crusts. It can be divided in two ways and has indefinite etiology. May be related to viruses, bacteria or some classes of medicinal products such as antibiotics, analgesics and anti-inflammatory measures. This pathology is more common in the male population and in the 20-30 years old group. The lesions are small, target and involve only one mucosa, usually the oral.

**Objective:** The purpose is to report the case of a female patient who presented a clinical picture compatible with erythema multiforme after use of analgesic.

**Resumed report:** BCS patient, female, 24 years old admitted to the emergency resources at the regional hospital of Presidente Prudente with aphthous, scaling and crustous lesions in the oral cavity and lips for about 15 days. The lesions affected jugal mucosa, tongue and gums, and saved palate and tonsils. Initially they were bubbles. They break up with serious blood secretion extravasation and evolve into ulcers. Its emergence was reported one day after dipyrone use. Patient complained intense pain in the oral cavity, having difficulty in ingestion of food, therefore being hospitalized. He began corticotherapy with prednisone 60 mg/day and a biopsy was performed. Evolved with considered improvement of the clinical and total regression of oral cavity injuries. The histopathological result relieved to be compatible with multiforme erythema.

**Conclusion:** Erythema multiforme makes differential diagnosis with several other vesicobullous diseases, it is necessary to evaluate the epidemiological context and the histopathological confirmation.

**Keywords:** aphthous, multiform erythema, stomatology.

### 10318 Profound hearing loss following an unusual minor head trauma: A case report

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*Banco de Olhos de Sorocaba*

**Introduction:** Sudden sensorineural hearing loss is an otologic emergency and is commonly found in the practice of otolaryngology.

**Objectives:** To report an unusual mechanism of acoustic trauma resulting in sudden sensorineural hearing loss.

**Resumed report:** A 54-year-old male slapped his own right ear trying to disperse an insect. Immediately after the trauma, the patient reported a sudden worsening of the hearing in the right ear and intense tinnitus. Pure tone audiometry revealed a profound sensorineural hearing loss (speech recognition threshold=90dB) and zero discrimination of monosyllables in the affected ear, with normal contralateral hearing (speech recognition threshold=20dB; discrimination of monosyllables=92%). Computed tomography did not show signs of temporal bone fracture or ossicular chain discontinuity; however, the superior semicircular canal was bilaterally dehiscence. After receiving oral corticosteroid therapy (60mg of prednisolone daily for 10 days), the patient reported that the tinnitus had ceased, and the hearing seemed normal in the affected ear. Post-treatment audiometry revealed normal hearing thresholds and discrimination scores in the affected ear (speech recognition threshold=20dB, 100% discrimination to monosyllables).

**Conclusion:** The patient suffered a sudden sensorineural hearing loss in the right ear following a minor head trauma, suggestive of a labyrinthine concussion or barotrauma. It is possible that the superior semicircular canal dehiscence may have increased the susceptibility for the labyrinthine concussion. In our patient, prompt treatment with a high dose of oral steroid was effective to restore normal hearing.

**Keywords:** sudden sensorineural hearing loss; acoustic trauma; superior semicircular canal dehiscence.

### 10319 Sudden hearing loss: Intratympanic corticosteroid within limited conditions

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**Introduction:** Sudden hearing loss is an otologic emergency that warrants immediate treatment to allowing optimal hearing recovery.

**Objectives:** to report a significant hearing recovery of a late sudden sensorineural hearing loss using intratympanic steroid therapy.

**Resumed report:** A 57-year-old female who had a poorly controlled diabetes reported a sudden hearing loss in the right ear 15 days prior to the appointment. Pure tone audiometry revealed profound sensorineural hearing loss in the right ear, with absent speech recognition and discrimination at 120dB; hearing thresholds were normal in the contralateral ear (speech recognition thresholds=20dB; discrimination=100%). As the glucose levels contraindicated oral steroids, we proposed intratympanic steroid therapy, which was administered weekly within the course of 3 weeks, using dexamethasone (4mg/ml). After treatment, the patient reported a significant improvement of the hearing. Post-treatment audiometry revealed a significant improvement in the speech recognition threshold (65dB) and discrimination score (72%) in the affected ear.

**Conclusion:** Patients presenting after 15 days of the sudden hearing loss frequently have a worse hearing recovery prognosis as compared with patients treated within the first two weeks. Nevertheless, our patient had a significant hearing improvement in spite of having had the sudden hearing loss for 15 days and being treated with isolated intratympanic steroid therapy. Although previous studies recommended the use of dexamethasone 24mg/ml, this concentration is unavailable in our country, and thus the 4mg/ml was used. In spite of this limitation, our patient had a significant clinical and audiometric improvement.

**Keywords:** sudden sensorineural hearing loss; intratympanic steroid; treatment.

### 10321 Middle turbinate mucopyocele: An unusual cause of unilateral nasal obstruction

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**Introduction:** Mucocoeles are cystic formations in paranasal sinuses, filled with a mucous secretion that most frequently affects the frontal and ethmoidal sinuses. The clinical condition depends on the

region involved, usually with insidious symptoms and a slow course, which can cause facial pain, headache, facial pressure, obstruction nasal, ophthalmological changes and dacryocystitis. Moreover, if a mucocele gets infected, it becomes a mucopyocele.

**Objective:** To report an unusual cause of unilateral nasal obstruction.

**Case report:** A ten-year-old boy without comorbidities presented a progressive nasal obstruction, mainly on the left side, purulent rhinorrhea, and frontal headache for at least three months that improved after analgesic use. The child had oral breathing, progressive impairment of snoring, and respiratory pauses during sleep witnessed by his parents.

At anterior rhinoscopy, there was a hyperemic solid mass in the left nasal cavity. Its surface was regular and friable. The computed tomography and the magnetic resonance showed an obstructive tumor in the left nasal cavity, well-delimited, without bone destruction despite its mass effect, with calcifications inside mixed with the secretion. Its probable origin was the middle turbinate. He underwent nasal endoscopic surgery that provided the complete excision of the lesion. In the postoperative follow-up, he showed total improvement of the nasal symptoms.

**Conclusion:** Although the mucopyocele is a rare complication of mucocele, it is a differential diagnosis in cases of nasal obstruction. Imaging exams are essential for the diagnosis, and endoscopic surgical treatment allows a satisfactory result.

**Keywords:** mucocele, mucopyocele, middle turbinate.

### 10322 Chronic earache caused by skull base osteomyelitis: A case report

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**Introduction:** Osteomyelitis is a chronic or acute infectious process whose pathogen can vary according to the patient's age and the mechanism of infection. The diagnosis is made through clinical, radiological and laboratory evaluation and its treatment through clinical support and antibiotic therapy.

**Objectives:** To report a case of chronic earache, refractory to common analgesia, as the main clinical manifestation of a skull-based osteomyelitis.

**Case report:** Male patient, brown, 81 years old, attended the Otorhinolaryngology Service of the Hospital Federal dos Servidores do Estado with a history of left earache after weeks of otitis treatment by an otorhinolaryngologist. He denied fever and comorbidities. On examination, at the first consultation, he had normal otoscopy, nasal endoscopy and videolaryngoscopy. Head tomography was requested at this consultation. The patient returned only 3 months after complaining of earache that became refractory to common painkillers. He also had dysphagia. Otoscopy revealed secretion in the left middle ear, slight nasal endoscopy bulging in the rhinopharynx and video laryngoscopy paresis of the left hemilarynx. Magnetic resonance imaging was performed, which showed abscessed skull based osteomyelitis. Culture material was collected, which revealed *Pseudomonas aeruginosa*. After antibiotic therapy, the patient showed complete improvement in earache.

**Conclusion:** Complaints of earache without an obvious cause should be investigated efficiently and broadly, as they can sometimes be the only manifestation of a complex disease, such as skull-based osteomyelitis.

### 10323 Sclerotherapy with bleomycin in tongue lymphangioma in a child: A case report

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**Introduction:** Lymphangiomas are congenital tumors of the lymphatic tissue. Although it can affect the oral cavity, rarely occurs in the tongue. It is usually diagnosed in the infancy, becoming a

common cause of macroglossia in children, associated with long-term disabilities. The management remains a challenge due to location and function involvement. In this case, we proposed the use of sclerotherapy with bleomycin in a child.

**Objectives:** This study aims to report a case of tongue lymphangioma in a child, being followed up at the Hospital Otorrinos, endorsing the need of a high index of clinical suspicion, in addition to knowledge about the differential diagnosis of oral cavity tumors in the practice of the otorhinolaryngologist.

**Resumed report:** This article reports a case of a male patient, 8 years old, diagnosed by 5 years old with tongue lymphangioma. He complaint of burning sensation of the tongue and bleeding from the lesion. We opted for sclerotherapy with intralesional bleomycin, with significant improvement after 3 sessions. The patient responded favorably and is presently in follow-up with no relapse.

**Conclusion:** The diagnosis requires a high index of clinical suspicion, since the patient is usually unable to verbalize their complaints due to age. We found that sclerotherapy with intralesional bleomycin was effective in the management of lymphangioma of the tongue, since it allows early intervention with minimal functional side effects for the child, associated with an excellent response.

**Keywords:** tongue lymphangioma, bleomycin, stomatology, otorhinolaryngology.

### 10325 Secondary syphilis in the oral cavity: A case report

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*Unoes*

**Introduction:** Syphilis is an infectious disease caused by the bacterium *Treponema pallidum*. Syphilis has three clinical stages and may present various oral manifestations, mainly at the secondary stage. The disease mimics other more common oral mucosa lesions, going undiagnosed and with no proper treatment.

**Objectives:** The objective of the present study were to report a case of syphilis to highlight the importance of identifying oral lesions for the definitive diagnosis.

**Resumed report:** A 16-year-old female patient attended the dental office for a routine orthodontic appointment complaining of a painful lesion on her lower lip with onset of 1 month. The intraoral physical examination revealed an elevated lesion of fibrous consistency in the lower lip mucosa, with some erythematous areas, multiple erythematous and ulcerated lesions, affecting the hard and soft palate, extending to the oropharynx. It was decided to remove the orthodontic appliance from the lower arch, in order to rule out possible trauma. The patient had an active sex life, and did not use barrier contraceptive methods, she denied genital and cutaneous lesions. The results of the serologic tests (VDRL, FTA-Abs) indicated secondary syphilis. The patient was referred to the doctor and treated with penicillin. There was complete remission of the lesions.

**Conclusion:** Oral lesions of secondary syphilis are typically multiple and symptomatic. Syphilis has important implications for clinicians because manifestations can occur in the mouth and perioral region and secondary lesions are highly contagious.

**Keywords:** oral manifestations; secondary syphilis; *treponema pallidum*.

### 10326 "Watch and scan" and stereotactic radiosurgery as treatment strategies for Vestibular Schwannoma: A case report

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**Introduction:** Vestibular Schwannoma arises from vestibulocochlear nerve's Schwann cells. Its incidence is approximately 1,5/100000 inhabitants/year, usually affecting women around 50 years old. Although benign, it mainly results in progressive, neurosensory and unilateral hearing loss commonly accompanied by tinnitus and vertigo. Koos scale (I-IV) classifies the tumor according to its

dimensions. MRI confirms the diagnosis. Because of low growth rate, rare malignant transformation and difficult surgical access, "watch and scan" strategy is often chosen. Stereotactic radiosurgery may be an option to control expansion of small tumors, however it does not improve patient's clinical status.

**Objectives:** To report a case of Vestibular Schwannoma monitored by "watch and scan" strategy during 7 years and to evaluate the outcome of stereotactic radiosurgery after tumor's growth.

**Resumed report:** In 2014, a woman, 61, complained of sudden vertigo, progressive hearing loss and tinnitus in her left ear. Audiological and otoneurological evaluation: medium rate neurosensorial hearing loss and peripheral vestibular alteration in the left ear, respectively. Epidemiological description and symptoms suggested Vestibular Schwannoma. MRI confirmed it, showing an intracanalicular tumor (Koos grade I). "Watch and scan" monitored tumor's growth. In 2020, MRI indicated a tumor's expansion (Koos grade II). Stereotactic radiosurgery (single dose of 12 Gy) was performed. In 2021, although the tumor maintained its dimensions, patient's symptoms persisted. Patient is currently in observation.

**Conclusion:** "Watch and scan" strategy was essential to monitor tumor's growth. During the year after stereotactic radiosurgery, the tumor expansion may have been controlled, but symptomatology remained.

**Keywords:** Schwannoma vestibular, "watch-scan", stereotactic radiosurgery.

### 10327 High-grade immunophenotype B non-Hodgkin's lymphoma of the left maxillary sinus in a 20-year-old patient: Case report

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**Introduction:** Non-Hodgkin lymphoma of the paranasal sinuses manifests itself mostly with nonspecific symptoms similar to infectious-inflammatory diseases such as chronic rhinosinusitis, refractory to clinical treatment, nasal obstruction, facial edema and associated headache, delaying diagnoses in most cases.

**Objectives:** To report the diagnosis of a high-grade immunophenotype B non-Hodgkin's lymphoma in the left maxillary sinus in a 20-year-old patient.

**Case report:** Patient V.D.F.M, 20 years old, resident of Londrina, Paraná, Brazil, with severe headache, paresthesia and bulging in the left hemiface, nasal obstruction and diplopia. Contrast-enhanced CT of the sinuses showed a heterogeneous expansive lesion with epicenter in the left maxillary sinus with invasion of adjacent structures and bone destruction, 77 x 60 x 52 mm, erosion of the orbital floor, displacement of the inferior rectus eye muscle and associated proptosis. He was referred to the Felippu Institute of Otorhinolaryngology in São Paulo and surgical excision of the lesion was defined. Endonasal endoscopic surgery was performed with en bloc excision of the lesion, with histopathological result of "High-grade Non-Hodgkin's Lymphoma", and immunohistochemistry: high-grade B immunophenotype with co-expression of BCL6 and MYC.

**Conclusion:** Lymphomas of the paranasal sinuses are rare with a nonspecific clinical picture, which can delay its diagnosis. Therefore, the ENT physician should always suspect differential diagnoses in patients refractory to clinical treatment of nasal obstruction, rhinosinusitis or patients with alarm symptoms such as diplopia and refractory headache.

### 10328 Case report: Respiratory epithelial adenomatoid hamartoma

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**Introduction:** Respiratory Epithelial Adenomatoid Hamartoma is a rare type of benign tumor lesion<sup>1</sup>. Common in liver and splenic tissue, the first case in the respiratory tract was described

in 1995<sup>2</sup>. The entity is more frequent in males between 30 and 90 years<sup>2</sup>. Clinically, it presents as a mass in nasal cavities, the posterior part of the septum is the most frequent location.

**Objective:** Report a rare lesion that makes a differential diagnosis with common nasosinusal lesions such as nasal polyposis, inverted papilloma and adenocarcinoma<sup>3</sup>.

**Summary report:** A 39-year-old male patient presented with a prominent lesion through the right nostril that had been externalized for about 4 years. In the initial investigation, tomography showed a lesion with soft tissue attenuation, filling the entire right nasal cavity with expansion to the nasal vestibule, bypassing the cavum posteriorly, but without lesion in the left middle meatus. Contrasted magnetic resonance showed the origin of the lesion in the right middle meatus without invasion of the orbit or anterior cavity. Nasosinusal endoscopic surgery was performed to resect the lesion that was inserted in the right posterior fontanelle. The tumor was completely resected with cauterization of its insertion. The pathological examination revealed Respiratory Epithelial Adenomatoid Hamartoma. At follow-up, the nasal cavity examination with a rigid endoscope showed no signs of residual lesions.

**Conclusion:** The lesion can be easily confused macro and microscopically with more threatening tumors<sup>3</sup> and therefore, recognition is important to avoid a more invasive and aggressive approach.

**Keywords:** nasal tumour, hamartoma, rhinosurgery.

### 10329 Re-approach of juvenile nasoangiofibroma after embolization complications

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**Introduction:** Juvenile Nasal Angiofibroma (JNA) is a non-encapsulated benign vascular tumor, yet locally aggressive. It affects almost exclusively adolescent males.

**Objectives:** Report a surgical case of JNA after neurological complications due to preoperative embolization, analyzing both the intra- and postoperative complications.

**Resumed report:** A sixteen-year-old male was diagnosed with JNA, having undergone preoperative embolization of the tumor as the primary approach. The clinical picture evolved with Cerebrovascular Accident (CVA) leading to neurological complications. Two months later, he presented at the Instituto Felippu with aphasia and strabismus, when was submitted to complete removal of the tumor with endoscopic endonasal approach using the centripetal technique. In a post operative consultation one year after the procedure, the patient is asymptomatic, without signs of tumor relapse nor remaining neurological sequelae.

**Conclusion:** The embolization of JNA is advocated mainly for reducing intraoperative blood loss, surgery time, and tumor size. However, it is an invasive procedure and it presents CVA as one of its main complications. Furthermore, some authors emphasize that the embolization of JNA might increase the difficulty identifying the total extent of surgical margins, thus increasing the risk of relapse. The Felippu Institute prefers to approach this type of tumor without preoperative embolization, with the use of the centripetal technique, which facilitates the dissection, ligating not only the maxillary artery, but also all of the arterial branches feeding the lesion. In our opinion, the dissection of the tumor using this technique is considerably easier and safer as it reduces risk of relapse and complications.

### 10330 Oral Burkitt lymphoma: A case report

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*Hospital Otorrinos*

**Introduction:** Burkitt lymphoma is a rare and aggressive type of poorly differentiated non-Hodgkin lymphoma.

**Objective:** To report a case study of a male patient whose complaints were related to chewing pain and increased gingival volume associated with weight loss.

**Resumed report:** Patient evaluated at the outpatient clinic of Hospital Otorrinos and referred for oral mucosa biopsy and computed tomography. Histopathological analysis confirmed non-Hodgkin lymphoma of the Burkitt type. On CT, he presented lesions in the mandible, face, abdomen, and spinal cord. Otorrinos transferred the patient to the reference pediatric hospital in the region, evolving during chemotherapy with spinal cord aplasia and complications, remaining in the ICU, with an unfavorable outcome two months after diagnosis.

**Conclusion:** The case study reflects the aggressive manifestation of Burkitt lymphoma in a patient in the first decades of life, with a predisposition to the sex of male and great affinity for the gnathic bones. The case study evolution focuses on the importance of clinical suspicion in the early stages of the disease and the need for an early diagnosis to reduce morbidity and mortality.

**Keywords:** Non-Hodgkin Lymphoma. Burkitt lymphoma. Oral lymphoma.

### 10331 Recurrent parotitis and Sjogren's syndrome in a child: A case report

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**Introduction:** The Parotitis is characterized by episodes of swelling and parotid pain, usually accompanied by fever and malaise. Most episodes of parotitis are self-limited, but a subset of pediatric patients has recurrent mumps. This is a rare clinical manifestation in childhood, which can have several causes, such as obstructive, infectious, genetic, immunodeficiencies, Sjogren's syndrome and unknown etiology. Most of the cases are unilateral, with initial symptoms between 03 and 06 years of age, but Sjogren's Syndrome tend to be bilateral and appear later, as observed in the study.

**Objectives:** This study presents a case of recurrent parotitis in a child, secondary to Sjogren's Syndrome, diagnosed at Hospital Otorrinos. This report aims to increase the degree of suspicion of Sjogren's Syndrome in cases of recurrent childhood mumps, although it is rarely an initial manifestation of the disease.

**Resumed report:** This report presents a case of an eleven-year-old child with recurrent bilateral mumps, 03 episodes in the last 02 years, characterized as pain and inflammatory symptoms in the parotid, associated with daily fever. Child without comorbidities and updated vaccination card. After clinical investigation, the diagnosis of Sjogren's Syndrome was made.

**Conclusion:** Otorhinolaryngologists who evaluate children with recurrent mumps should consider Sjogren's Syndrome as an underlying diagnosis. Sjogren's syndrome has a low prevalence in pediatrics, probably because it is underdiagnosed. Advancing the assessment should consist of laboratory studies, lip biopsy and possible referral for pediatric rheumatology. Early diagnosis directs treatment changes the prognosis of the disease.

**Keywords:** Sjogren's syndrome; recurrent parotitis; otorhinolaryngology.

### 10332 Case report: Chronic cholesteatomatous otitis media complicated with acute mastoiditis

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**Introduction:** Chronic otitis media can be divided into two groups: chronic non-cholesteatomatous otitis media and chronic cholesteatomatous otitis media, the most aggressive aspect of the disease and with the highest risk of clinical complications.

**Objective:** The work aims to present a clinical case of chronic cholesteatomatous otitis media complicated with acute mastoiditis,

followed at the Hospital for Rehabilitation of Craniofacial Anomalies, Bauru-SP, 2021.

**Clinical case:** Patient, 59 years old, male, with chronic cholesteatomatous otitis media, submitted to subtotal mastoidectomy and tympanoplasty surgery in the right ear, in March 2019. Requests return in April 2021 due to intense otalgia, in addition to edema, hyperemia and displacement anterior of the right ear pinna. Temporal bone computed tomography showed soft tissue content in the middle ear and mastoid region on the right. With the main diagnostic hypothesis of chronic cholesteatomatous otitis media complicated by acute mastoiditis, intravenous antibiotic therapy with ciprofloxacin and clindamycin was performed and, after 3 days of clinical treatment, surgically re-approached. We opted for total mastoidectomy on the right, with drainage of purulent secretion from the previously drilled cavity and desquamative tissue in the epitympanic region. He maintained an outpatient follow-up with good clinical evolution.

**Conclusion:** Chronic cholesteatomatous otitis media poses diagnostic and therapeutic challenges for otolaryngologists due to its destructive and invasive potential and capacity for complications. One should be aware of possible recurrences and complications of this disease during the clinical follow-up of patients affected by this condition.

### 10336 Auricular perichondritis: A case report

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**Introduction:** Are inflammatory processes of the perichondrium and cartilage of the pinna, caused by extension of infectious processes or trauma (ex. piercing), with the most involved microorganism being *Pseudomonas aeruginosa*. In the early stages, the use of oral antibiotics may be sufficient, but in the evolution to collections or necrosis, surgical treatment must be instituted. The process can cause permanent deformity of the ear.

**Objectives:** Warn possible consequences of the use of piercing.

**Resume Report:** V.P.L., 19 years old, female. The patient sought the otolaryngology service with edema, hyperemia and severe pain in the upper third of the right ear pinna associated with fever after 5 days of piercing implantation in the scaphoid fossa, with progressive worsening, progressing to deformation of the pinna and perichondral collection. He used oral antibiotics, without improvement. On examination, intense pain on palpation, hyperthermia, redness and induration of the entire right ear pinna, with a floating area. Systemic antibiotic therapy and drainage of the abscess area with placement of a penrose drain were performed, followed by surgical approaches for debridement of the degenerated cartilage, washings and dressings with topical antibiotics, evolving then with an improvement in the infectious condition and referred to plastic surgery.

**Conclusion:** In view of the possible irreversible esthetic sequelae, it is necessary to diagnose this condition in its early stages, aiming at a effective management according to each case. It is important to emphasize that prevention is the best treatment.

**Keywords:** perichondritis; deformity; piercing.

### 10337 Maxillary sinus mucocele: A case report

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**Introduction:** Mucocele of the paranasal sinuses is a benign lesion, composed of mucous or purulent material, which can cause bone erosion. It occurs when there is an obstruction in the drainage of a sinus, with a resultant accumulation of secretion. The frontal and ethmoid sinuses are the most affected. The clinical picture varies according to the affected region. Diagnosis is performed through imaging exams, and sinus computed tomography is the exam of choice.



**Objectives:** Pay attention to the possible involvement of the maxillary sinus, even though it is not the most common, and discuss the possibility of prevention, early diagnosis and implementation of effective therapy.

**Resume report:** M.A.R.F., 50 years old, female. Patient referred to the otolaryngology service, with a report of edema and pain in the left hemiface that had started 4 months ago, with progressive worsening, associated with divergent strabismus and reduced ipsilateral visual acuity. History of Maxillary Sinusotomy on the left in 2015. Imaging exams were performed, showing blurring of the left maxillary sinus with bone destruction and mild compression of adjacent structures. The patient was surgically approached, an antrotomy performed on the affected sinus and reestablishment of its drainage, with resolution of the case.

**Conclusion:** Because it presents itself clinically as an expansive and locally destructive lesion, often with initial nonspecific symptoms, it is a disease that can lead to serious complications. Therefore, it must be diagnosed and treated early, and the endoscopic surgery is currently considered the treatment of choice.

**Keywords:** mucocoele; maxillary; endoscopic.

### 10338 Strategies in the outpatient management of the septal abscess

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*Irmãdade da Santa Casa de Misericórdia de Limeira*

**Introduction:** The outpatient care of patients with septal abscesses can be a challenging situation, but it revealed satisfactory results with anesthetic facial blocks.

**Objectives:** This case report aims to show a successful outcome in the proper treatment of the septal abscess with the help of anesthetic facial blocks.

**Resumed report:** A 57-year-old patient was admitted in the Otolaryngology ambulatory 17 days after a nasal trauma, with a complaint of nasal obstruction. The patient denied any pain or fever. From the physical examination, a septal bulge like a septal abscess emerged. It was opted for a septal drainage and an antibiotic therapy. After 24 hours, the patient was reassessed and a recurrence of the abscess was found, so a new drainage and nasal buffer was carried out. In 48 hours, no significant improvements were observed, so a new approach was followed. Anesthetic blocks of the palatine foramen, infra-orbital foramen, incisor foramen and additional points in the columella and glabella were implemented. They allowed a safe approach of the nasal septum and a placement of nasal splints. After that, the patient had a satisfactory development without functional and aesthetic consequences.

**Conclusion:** The case shows the importance of proceeding actively in the septal infections in order to preserve the anatomy, and how facial anesthetic block techniques can improve the outcomes in safety and agility.

### 10339 Ludwig's angina: Case report

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*Hospital São José do Avaí*

**Introduction:** Ludwig's angina is a serious infectious-inflammatory process, consisting of cellulitis of the cervical connective tissue, of rapid evolution and polymicrobial nature, which bilaterally affects the submandibular, sublingual and submental spaces. Although it has a multifactorial etiology, the frequent associated cause is that of odontogenic origin. It requires early diagnosis and treatment, due to possible severe complications.

**Objectives:** Discuss a case of cervical abscess in childhood due to odontogenic causes, given its low prevalence.

**Resume Report:** L.R.K.L., 4 years old, female. Mother reports beginning 20 days ago of bulging in the cervical region of progressive

growth with hardening, hyperemia and local heat, associated with irritability, sialorrhea and fever.

She reported dental infection in the lower left first molar for 10 days, clinically treated with three classes of antibiotics, without clinical improvement. Searched the service, presenting swelling in the submandibular and submental region bilaterally, with extensive hyperemia, notable area of fluctuation, intense pain on palpation and irritability. Was immediately submitted to drainage of the abscess in the operating room. She evolved with clinical improvement and underwent tooth extraction from the affected tooth, while still in hospital.

**Conclusion:** In view of the lower frequency of cervical abscesses with odontogenic etiology in childhood, the present study shows the importance of warning about the early diagnosis and treatment of this pathology in view of the severity and speed of its evolution, and should be seen as a pathology that needs accurate surveillance and emergency treatment.

**Keywords:** ludwig; abscess; odontogenic.

### 10340 Cavum sarcoma: A case report

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**Introduction:** Tumors of the cavum are rare neoplasms with high malignancy. They have an insidious onset, with nonspecific signs and symptoms, therefore they are usually diagnosed late. There are different histological types of these tumors, sarcoma being a rare type of tumors of cavum, with greater incidence in Young people. According to pathological anatomy, they are smooth, hard, rosy tumors. In general, tumors of the cavum are severe, have a high mortality, the cure is exceptional and the treatment is almost Always palliative.

**Objectives:** Discuss a rare histological type of cavum tumor.

**Resumed report:** J.C.C., 61 years old, male. The patient comes to the service complaining of severe nasal obstruction onset 3 months ago, associated with bloody sputum and right hearing loss.

On physical examination, enlarged submandibular ganglion were observed, and on otoscopy the right side, presence of secretory otitis media. Nasal endoscopy was performed with the presence of a large tumor in the cavum with local bleeding. Tomography of the paranasal sinuses showing veiling of the entire cavum. The patient was submitted to tumor biopsy, which presented immunohistochemical results of dendritic follicular cell sarcoma. He was referred to the oncology service, undergoing radiotherapy and chemotherapy.

**Conclusion:** The cavum tumor, being in an inaccessible region, is often not diagnosed due to the neglect of a careful and thorough physical examination. Therefore, it is important to use all semiotic means at our disposal for a possible diagnosis and implementation of the necessary treatment.

**Keywords:** sarcoma; cavum; rare.

### 10341 Case report: Pyogenic granuloma in the nasal cavity

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*Hospital de Reabilitação de Anomalias Craniofaciais HRAC-USP*

**Introduction:** Pyogenic granuloma or lobular capillary hemangioma is a rare, fast-growing benign vascular tumor associated with nasal obstruction and epistaxis. Diagnosis can be made clinically and treatment is surgical, performed through excisional biopsy.

**Objective:** The work aims to present a clinical case of pyogenic granuloma, followed at the Hospital for Rehabilitation of Craniofacial Anomalies, Bauru-SP, 2021.

**Clinical case:** A 30-year-old female patient complains of a lesion in the right nasal cavity, with progressive growth for 3 months, associated with some episodes of epistaxis. On physical examination, an exophytic lesion with a polypoid aspect was evidenced,



approximately 1 cm x 1 cm, in area II of the nasal septum on the right. Computed tomography of the face and paranasal sinuses showed a solid oval lesion measuring 11 mm x 8 mm, well delimited and with regular contours. With the main diagnostic hypothesis of pyogenic granuloma, outpatient treatment with amoxicillin/clavulanate was prescribed, followed by excisional biopsy of the lesion in an operating room for pathological analysis. The study of the specimen confirmed lobular capillary hemangioma (pyogenic granuloma) in the nasal septum. The patient had a good clinical evolution with adequate healing of the excision site of the lesion, without recurrence of the granuloma.

**Conclusion:** Pyogenic granuloma must be included in the differential diagnoses of epistaxis and nasal cavity lesions. Other possibilities are nasal polyp, antrochoanal polyp, sarcoidosis, Wegener's granulomatosis, papilloma, Kaposi's sarcoma, and malignant tumors such as squamous cell carcinoma, amelanotic melanoma and lymphoma.

#### 10342 Coloboma auris: A case report

Marina Bandoli de Oliveira Tinoco, Paulo Tinoco, Alfredo Vieira Bernardo, Louise Mancen Freire, Cecy de Fátima Amity Fabri, Camila Abreu Almeida  
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**Introduction:** Malformation that is installed by alterations in the embryogenesis of the ear pinna. In about 23% of cases, the fistula is bilateral. More frequent condition in blacks and orientals. There is a familial character in fistulas (genetic factor of incomplete dominance, not related to sex). Incidence in the population is variable: 0.19%-1%. Most pre-auricular sinus sufferers don't have any complaints during their lifetime. In some cases, however, the symptoms appear with the elimination of foul, whitish or purulent material through the opening of the fistula. In other cases, a pre-auricular abscess forms, which often requires drainage.

**Objectives:** Report a case of Coloboma Auris.

**Resumed report:** L.G.M, 8 years old, male, was admitted to the Otorhinolaryngology service together with his mother and reported recurrent outflows of purulent secretion of foul odor through an orifice located anterior to the helix of the ear and superior to the tragus. He had recurrent infections and reported abscess formation 2 years ago at the site, requiring drainage. Patient with symptoms for a few weeks. Surgical intervention was performed to resolve the condition and remove the fistula. The fistulous tract was detected by methylene blue.

**Conclusion:** Diagnosis is clinical. Only in symptomatic cases is there a surgical intervention to remove the fistula. Methylene blue is injected into the area, thus allowing for contrasting the entire path of the fistula. The entire path that is detected by the bluish coloration is dissected. Displacement continues until the fistula is completely removed.

**Keywords:** coloboma; embryogenesis; fistula.

#### 10343 Case report: Cholesteatomatous chronic otitis media with erosion of semicircular canals

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**Introduction:** Chronic otitis media is an inflammatory process of the middle ear, which can be classified as non-cholesteatomatous or cholesteatomatous. Cholesteatomas are tumors with expansion capacity and bone lysis, which, in turn, can present as congenital or acquired. Due to their destructive behavior, they can cause intratemporal and intracranial complications.

**Objective:** to emphasize the potential complications of advanced chronic cholesteatomatous otitis media through a case report.

**Case report:** A 27-year-old male patient, born and resident in Caieras-SP, was seen at the Department of Otorhinolaryngology at

HRAC-USP, complaining of chronic bilateral otorrhea since childhood associated with decreased hearing acuity, and vertigo episodes intense for 2 weeks. Otoscopy showed thick secretion in the left ear, and inflammatory polyp in the conduit associated with pearly lamellar tissue in the attic region of the right ear. A computed tomography scan of the mastoid was requested, which showed soft tissue content in the middle ear and mastoid, erosion of the ossicular chain and dehiscence of the superior and lateral semicircular canal to the right. After hospitalization, we opted for surgical treatment through right radical mastoidectomy. Intraoperatively, erosion of the semicircular canals was observed, with abundant desquamative inflammatory material inside them. The patient is under outpatient follow-up after surgical treatment.

**Conclusion:** We reiterate the importance of early diagnosis and treatment of chronic otitis media, due to its potential risks of serious complications as the disease progresses.

#### 10344 Ganglion tuberculosis: A case report

Marina Bandoli de Oliveira Tinoco, Paulo Tinoco, Alfredo Vieira Bernardo, Louise Mancen Freire, Camila Abreu Almeida  
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**Introduction:** The most frequent type of extrapulmonary tuberculosis, it is not transmissible and may be related to a weakened immune system. In general, it especially affects children and patients infected with HIV. It is most commonly seen in women aged 20 to 40 years and is caused by *Mycobacterium tuberculosis*. It is not uncommon for this pathogen to remain inactive in the body for a long time, without showing symptoms. When there is a drop in immunity, bacterial proliferation is favored and the disease manifests itself. Chronic process, usually with more than 4 weeks of febrile lymphadenomegaly, emaciation and adynamia.

**Objectives:** Report a case of Ganglion Tuberculosis.

**Resumed report:** M.J.V, 44 years old, female, on 12/01/2021 started with edema in the right cervical region, evolving to the submandibular region and later to the left cervical region, associated fever and weight loss. She used antibiotics, with no improvement. Physical examination showing a large mass in the cervical region, with a hardened aspect, causing difficulty in swallowing. Lymph node enlargement in several chains, including cervical, submandibular, axillary and inguinal. Patient submitted to lymph node biopsy in the submandibular region, whose histopathological examination showed granuloma with caseification necrosis, typical of lymph node tuberculosis, concluding the diagnosis.

**Conclusion:** Diagnosis is made by search for BAAR and culture for BK in material removed from the ganglion, through aspiration puncture or lymph node biopsy with histopathological study. Treatment is made with a combination of antibiotics Rifampicin, Isoniazid, Pyrazinamide and Ethambutol.

**Keywords:** tuberculosis; fever; caseification.

#### 10345 Case report: Tuberculous otitis media

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**Introduction:** Tuberculous otitis media is considered to have high morbidity, despite its low prevalence. Granulomatous bacterial disease caused by *Mycobacterium tuberculosis* usually presents with painless otorrhea and can evolve with more serious intracranial complications. Clinical treatment with antituberculosis chemotherapy is essential for the resolution of the disease, however, surgical treatment is indicated in refractory cases.

**Objective:** to demonstrate the importance of the etiopathogenic differential diagnosis of otitis media, through the case report of tuberculous otitis media, given the seriousness of potential complications.

**Case report:** A 27-year-old female patient without comorbidities was seen at the Department of Otorhinolaryngology at

HRAC-USP, complaining of bilateral otorrhea for 1 year, worse on the right, associated with progressive bilateral hearing loss. Otoscopy, presence of bilateral inflammatory polyp occupying the interior of the external auditory meatus, adjacent to the tympanic membrane. Audiometry was requested, which showed mild conductive hearing loss on the right and mild mixed hearing loss on the left. Tomography of temporal bones showed the presence of soft tissue content occupying mastoids in its entirety bilaterally, with erosion of the Chausset spur, widening of the Prussak space and erosion of the ossicular chain. Bilateral polyp partial excision was performed for AFB research, which was positive in the right ear. Soon, polychemotherapeutic treatment for tuberculous otitis media was started. Patient is being followed up and treated at this service.

**Conclusion:** This study highlights the importance of early diagnosis of tuberculous otitis media, given the potential complications and sequelae with the progression of the disease.

#### 10346 Septal abscess: A case report

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**Introduction:** Purulent collection between the cartilaginous or bony nasal septum and the corresponding perichondrium or periosteum. The main cause is nasal trauma, representing 75% of cases. The force generated by the trauma causes the separation of bone and underlying septal cartilage. This causes disruption of the submucosal vessels, leading to bleeding into the space formed. The hematoma prevents the perfusion of the septal cartilage and forms an ideal means for bacterial proliferation, leading to the formation of an abscess, which can lead to intense local pain, nasal obstruction, fever and epistaxis.

**Objective:** Report a case of septal abscess.

**Resumed report:** A.N.M, 13 years old, male, was admitted to the Otorhinolaryngology service with his mother, reporting that he started 7 days ago with a picture of nasal obstruction associated with intermittent episodes of epistaxis and high fever (39°C). It all started after a fall from his own height with consequent direct trauma to the nasal mucosa. Anterior rhinoscopy showing the presence of septal abscess. Patient who underwent drainage of the abscess with placement of a Penrose drain to maintain the drainage port. Unilateral anterior tamponade was performed with a gloved finger to prevent recurrence of the condition.

**Conclusion:** The diagnosis is clinical and should be considered in any case of acute onset nasal obstruction and a history of local trauma, periodontal infection or inflammatory process involving the nasal region. Early drainage and adequate antibiotic therapy are important to avoid serious complications.

**Keywords:** abscess; bruise; trauma.

#### 10347 Erythema multiforme: A case report

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**Introduction:** It is an immunomodulated inflammatory reaction that can affect the skin and oral mucosa. It can be triggered by the use of drugs, food allergies and bacterial and viral infections, most commonly in the oral cavity by herpes simplex virus. The main involvement is in young adults and males, with an average age between 20 and 40 years. It appears suddenly, within 24-48 hours, with an average evolution time of 2 weeks and possibility of recurrences. Its lesions tend to be erythematous-bullous, symmetrical and often self-limiting. Oral lesions may be independent of skin lesions.

**Objectives:** To report a case of Erythema Multiforme.

**Resumed report:** M.S.P, 11 years old, female, was admitted to the Otorhinolaryngology service with lesions in the oral mucosa of approximately 30 days of evolution, associated with significant lip edema and pain, which worsened significantly in the last 4 days. She used amoxicillin with clavulanate without improving her condition.

After hospitalization, all medications, including analgesics and antibiotics, were suspended. Prescribed only intravenous hydration and corticotherapy. The patient evolved well, with resolution of the condition after 07 days.

**Conclusion:** Although there are complementary exams, the diagnosis is clinical. In some cases there is a need for a biopsy. Treatment is usually according to the triggering factor. As in most cases the remission is spontaneous, the treatment is usually symptomatic, based on topical corticosteroids. Due to the lack of appetite caused by local pain, intravenous hydration and clinical observation of patients are important.

**Keywords:** erythema; drug; infection.

#### 10351 Secondary rhinoplasty due to nasal necrosis: A case relate

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**Introduction:** Female, 29 years old, with no comorbidities, presented with bilateral nasal obstruction followed by facial edema. She was treated in the emergency with anti-inflammatory drugs, with no response. After discharge, was identified nasal necrosis and performed emergency surgery, removing the nasal septum. Additionally, the computed tomography showed ethmoidal mucocele, which was also removed. In 2021, the patient came to our service with nasal obstruction and aesthetical complaints due to saddle nose and underwent a second surgical procedure.

**Objectives:** The aim of this report is to describe the techniques used in rhinoplasty in a patient with saddle nose.

**Resumed report:** Second surgery was performed using 6th costal cartilage to the graft confection, followed by an open-access rhinosseptoplasty, when was identified total absence of septal cartilage. The septal extension graft was inferiorly anchored in the nasal spine. Spreader grafts were fixed in nasal bones through external bone perforation and also fixed to the septal extension graft. The graft used to rebuild the nasal dorsum was made using rib cartilage and fixed to the spreaders and the extensor. The inferior lateral cartilages underwent paradomal resection in the cephalic portion, followed by posterior fixation of the domus in the extensor. Posterior spanning suture was also performed and diced cartilage was used in the radix and supratip and rim grafts were positioned bilaterally.

**Conclusion:** The case shows the functional and aesthetical approach to a saddle nose with the use of rib cartilage in a structured rhinoplasty.

**Keywords:** saddle nose, nasal necrosis, secondary rhinoplasty.

#### 10352 Metachronic adenocarcinoma or primary pharynx tumor: A case report

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**Introduction:** Due the increasing longevity, cancers incidence has been gaining new features, including the growth of anatomo and histologically distinct tumors(2), defined by Warren and Gates as multiple primary neoplasms(1). These cancers are restricted between head and neck tumors and, mainly, paranasal sinuses, with an incidence of less than 1% of all malignancies, being even rarer if accompanied by another secondary primary tumor(3).

**Objectives:** Clinical manifestations of pharynx and paranasal sinus tumors do not differ much from common symptoms of the otorhinolaryngology, such as nasal obstruction, facial pain and epistaxis, contributing to its subdiagnosis(4). Imaging exams, however, allow early identification and have improved survival in recent decades(6). Thus, they require a high degree of suspicion and investigation, even in the face of tumors already known elsewhere.

**Resumed report:** Male patient, 54 years, history of metastatic prostate adenocarcinoma (gleason 9). Evolved with epistaxis on right nostril, nasal obstruction, pruritus and sneezing, with progression to eyelid ptosis and absence of left eye abduction. Sinus of face tomography showed osteolytic lesion, with soft tissue component and epicenter on sphenoid. Biopsy revealed poorly differentiated carcinoma favoring nasopharynx squamous carcinoma, presenting negative immunohistochemistry for PSA and Racemase and positive for p16 and 34beta12.

**Conclusion:** Despite initial diagnosis, patients with secondary primary tumors of head and neck after a primary tumor outside have a lower survival(5). Thus, it is needed extensive investigation and suspicion in the face of symptoms and follow-ups of these individuals.

**Keywords:** nasopharynx tumor, metachronic, second cancer.

### 10353 Epidemiological profile of skull base surgeries in a reference hospital in Rio Grande do Norte (RN): Series of 50 cases

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**Introduction:** Skull base surgeries are highly complex procedures that evolved with videonasofibroscope and otorhinolaryngological skills. Knowing the conditions and epidemiological profile of patients are important to better care and surgical planning.

**Objectives:** To analyze the epidemiological profile of patients undergoing skull base surgeries in a specialized service at RN in the last 30 months.

**Methods:** Observational, analytical, cross-sectional study analyzing medical records of surgical patients from the otorhinolaryngology service accredited to the skull base team of Hospital do Coração, in RN. Age, gender, tumor diagnosis, surgical technique, post-op complications and outcome were evaluated.

**Results:** 50 cases were analyzed. Of these, 66% were female patients (mean age 46.60 years). 34% were men, with an average age of 56.47 years. As for diagnoses, pituitary adenoma was the most prevalent, 76% of cases. Craniopharyngioma 4%, Meningoencephalocele 4% and Meningioma 4%. Isolated cases of Sinus Carcinoma, Clivus Chondroma, Clivus Chondrosarcoma, Invasive Sphenoid Fungal Sinusitis, Sphenothmoidal Sarcoma and Sellar Metastasis have also been reported. As for outcomes and complications, 46% of the cases evolved favorably, without re-approaches. However, 18% had synechia or septal perforation. 14% had epistaxis and needed intervention. Another 14% had some type of lesion recurrence or need for reoperation. Oronasal fistula occurred in an isolated case.

**Conclusion:** Pituitary adenoma was the most common sellar pathology addressed by the surgical team composed of otolaryngologists and neurosurgeons. Synechia, septal perforation and epistaxis were the main postoperative complications. The need to re-address was low. High prevalence was found to adult women (4th decade of life).

**Keywords:** skull base surgery, pituitary adenoma, epidemiological profile.

### 10354 Case report: Transnasal surgical correction of a basal sphenothmoidal meningoencephalocele in a 33-year-old patient with morning glory syndrome and hypogonadism

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**Introduction:** Meningoceles are rare, but we can identify them unexpectedly. Brain herniations into nose through skull base

defects during embryogenesis can cause common symptoms such as nasal obstruction.

**Objectives:** To exemplify a case of Meningoencephalocele diagnosis in a 33-year-old patient with bilateral nasal obstruction that make us pay attention to important differential diagnosis in rhinology, especially when facial, intracranial, ophthalmic and hormonal anomalies coexist.

**Resumed report:** JCL, a 33-year-old woman, complaining of bilateral nasal obstruction since childhood. Two years ago she evolved with holocranial headache and progressive visual loss. She reported a previous history of Morning Glory Syndrome with surgical correction and Hypogonadotrophic Hypogonadism. On physical examination, a typical face with divergent strabismus, sudden nose and cushingoid face is evident. Rhinoscopy shows abnormal quadrangular cartilage. In the right nasal cavity, there is a mass surrounded by fibrous tissue without debt and a negative Furstenberg sign. MRI showed: signs of dysgenesis of the corpus callosum, associated with parallelism of the ventricular system. Extensive failure in the sella turcica floor, with projection of CSF material in the nasopharynx, forming a pocket (2.8x3.7x5.1cm) of Meningoencephalocele. The patient went surgical approach of otorhinolaryngology with neurosurgery to remove the lesion and reconstruct the structural anatomical flaw. She did not progress with meningitis or CSF fistula.

**Conclusion:** Midline congenital malformations should not be ruled out in the differential diagnosis of nasal obstruction even in adult patients, especially in cases with associated congenital syndromes. A basal sphenothmoidal meningoencephalocele may be the cause of respiratory distress.

**Keywords:** transthemoidal meningoencephalocele, skull base surgery, nasal obstruction, congenital midline anomalies.

### 10355 Congenital tracheoesophageal fistula treated with pediculated muscle flap: A case report

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**Introduction:** Congenital tracheoesophageal fistula is the most common malformation of the trachea. It manifests with severe cough, eating disorders and repetition pneumonia. Surgical treatment is necessary to restore tracheal and esophageal continuity.

**Objectives:** Report a case of tracheoesophageal fistula treated with a pedicled flap of the sternohyoid muscle.

**Resumed report:** A five-month old male patient was admitted by dysphagia due to esophageal stenosis. In January 2021, laryngeal stridor and dyspnea without associated infection followed during hospitalization. Videolaryngoscopy was performed with findings suggesting acid laryngitis and laryngomalacia. He had maintained stridor and important dyspnea despite clinical treatment, thus, it was opted to proceed with tracheostomy. He then developed repetition broncho-pneumonia and pulmonary focus sepsis. Direct laryngoscopy was performed with identification of communication between larynx and esophagus, which led to suspicion of grade III cleft. After clinical improvement, he was submitted to median laryngotomy with identification of grade I cleft and extension of the larynx opening to the trachea allowed visualization of a 0,5 centimeter diameter tracheoesophageal fistula at the level of the first and second tracheal rings. It was proceeded with fistula repair through primary suture of the esophagus and pedicled flap of the sternohyoid muscle interposed between trachea and esophagus. There was complete fistula closure in evaluation by new direct laryngoscopy and upper digestive endoscopy.

**Conclusion:** Tracheoesophageal fistula should be considered as a differential diagnosis in pediatric patients with persistent respiratory symptoms. Treatment of fistula with sternohyoid muscle pediculated flap showed effectiveness in this case.

**Keywords:** congenital, tracheoesophageal, fistula.

### 10357 Post trauma septal and bilateral inferior lateral cartilage haematoma: A case report

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**Introduction:** Post trauma nasal hematoma occurs when blood collects between septal cartilage and overlapping mucoperichondrium and is found mainly at the level of the nasal septum. Very few cases of nasal hematoma affecting other areas of the nasal septum have been reported, such as hematoma located in bilateral inferior lateral cartilage.

**Objectives:** To report a case of post trauma septal and bilateral inferior lateral cartilage haematoma.

**Resumed report:** A 76-year-old female patient was referred with increased volume and equimosis on the nasal tip and nasal vestibule following a fall earlier the same day. Volumous and hardened consistency swelling on bilateral nasal septum, columellar and interdental region with purple coloration was seen on physical examination, compatible with septal and bilateral inferior lateral cartilage haematoma. Computed tomography showed nasal fracture with no displacement, associated with a volumous increase in soft tissues in the nasal tip region, cartilaginous septum and bilateral lower alar cartilages. The patient underwent to surgical drainage under general anesthesia, with access via bilateral intercartilaginous and columellar transfixant incisions, aspiration of clots, exhaustive washing and placement of a penrose drain. The patient was followed up for 6 months after surgery, without further complications.

**Conclusion:** Despite post trauma nasal haematoma rarely affects areas beyond the nasal septum, such as the nasal tip region, cartilaginous septum and bilateral lower alar cartilages, the priority remains on the early diagnosis and surgical treatment to avoid complications, specially in elderly population.

**Keywords:** septal haematoma; nasal septum; columellar; post trauma.

### 10358 Branchial cyst: A case report

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**Introduction:** Represents a vestige of the gill apparatus. It occurs due to the non-complete obliteration of His cervical sinus, a space formed by the growth of the first branchial clefts. The most common is the one from the second branchial cleft and is located mainly in the jugulo-carotid region. Clinically, it presents as a mobile cervical mass of fibroelastic consistency and occurs mainly after upper airway infection.

**Objectives:** To discuss a case of branchial cyst with rapid clinical evolution.

**Resumed report:** L.S.A., 14 years old, female. The patient seeks the otorhinolaryngology service with a report of onset 7 days ago of a right cervical tumor, denying associated symptoms such as pain, fever, and local inflammatory signs. Total excision of the tumor was performed, and histopathological result of branchial cyst.

**Conclusion:** The treatment of this pathology is surgical excision, due to its possibility of compressing the noble structures around it. It is worth emphasizing the importance of correct and cautious technique in the surgical act due to the presence of important neighboring structures, such as nerves, vessels and arteries.

**Keywords:** cyst; cervical; gill arch.

### 10359 Intestinal type sinonasal adenocarcinoma: Case report

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**Introduction:** Malignant tumors of nasal cavity and paranasal sinuses are rare, representing only 3% of the head and neck tumors.

Among them, the most prevalent type is the spinocellular carcinoma. Therefore, intestinal type adenocarcinomas are even less prevalent. There is a clinical correlation between exposure to wood dust and shoe industry solvents and the development of this histological type. However, 20% of the cases are idiopathic, without any predisposing factors.

**Objectives:** This study presents a case of intestinal type nasal adenocarcinoma, treated by endoscopic nasal surgery, and literature review on this subject.

**Resumed report:** 57 year old male patient, complaining of nasal obstruction, worse on the right, starting 5 years ago. He reported previous episodes of small volume epistaxis and denied nasal itching, frequent sneezing and alterations in his sense of smell. At nasal endoscopy, the scope was not able to progress through the right nasal cavity given the presence of the referred mass. A CT scan with iodinated contrast and an MRI of the paranasal sinuses were requested. Given the diagnostic hypothesis of malignant nasal cavity neoplasm, we opted for surgical treatment, with removal of the mass. The histopathological report revealed it to be an intestinal-type nasal adenocarcinoma.

**Conclusion:** The importance of this case is due to the fact that it is a rare neoplasm, most often diagnosed when it is very advanced, making its prognosis obscure. Therefore, it is important that cases of persistent nasal obstruction are referred to secondary care for better evaluation.

### 10360 Aneurysmal bone cyst in the paranasal sinuses: A case report

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**Introduction:** Aneurysmal bone cyst is considered an uncommon lesion, which is more frequently in the mandible than in the maxilla, that causes expansion of the involved bone corticals and its behavior is usually aggressive. It is a rare lesion, and represents 1% of bone tumors, with an incidence in the jaws of 2% to 14% of all aneurysmal bone cysts in the body.

**Objectives:** The aim of this article is to report a case of aneurysmal bone cyst in an 12-year-old female.

**Resumed report:** A 12-year-old female patient went to the Head and Neck Surgery Outpatient Clinic of the state University of Rio de Janeiro with the main complaint of asymptomatic swelling located in the left facial region, for approximately 1 year. On physical examination, there was bulging in the left side of the face, painless on superficial and deep palpation. The intraoral examination didn't show any type of alteration. Surgical treatment was performed under general anesthesia, and the procedure consisted of left open maxillectomy with microsurgical reconstruction using a right lower limb femoral flap.

**Conclusion:** Aneurysmal bone cyst is an uncommon bone lesion in the jaws, but it is clinically relevant, as it has the ability to mimic malignant lesions. Children and young adults have the highest incidence of injuries, as which can be asymptomatic or rapidly progress to pathological fractures due to the lesion's compressive growth mechanism. Complementary exams, biopsy and knowledge of the lesion pathophysiology are essential for diagnosis, planning and therapeutic efficacy.

### 10361 Prevalence of electrocochleography reports in an otolaryngology reference clinic from the last 10 years

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**Introduction:** Electrocochleography is an electrophysiological examination for audiological and otoneurological evaluation. By assessing the action potential (AP) and the sum potential (SP), we found



the SP/AP parameters (normal < 53%), AP area (normal < 1.941) and AP Peak difference between rarefaction and condensation (normal < 0.332). The diagnosis of endolymphatic hydrops is considered when there is a result outside the quoted normality values, corticopathy when the AP peak without SP is found, and conductive loss when the absolute latency of the AP Peak > 1.79ms3.

**Objective:** Perform a statistical analysis of the results found in electrocochleography reports in an otolaryngology reference clinic from last 10 years. Methodology: a retrospective study was carried out with 10,015 electrocochleography examinations carried out by the same professional in an otolaryngology clinic in the last 10 years (2011 to 2021), taking into account normal tests, corticopathy, endolymphatic hydrops and conductive loss. In addition, the prevalence of laterality and gender were assessed within the hydrops results.

**Results:** Of the 10,015 (100%) exams: 3,818 (38.1%) were normal, 23 (0.2%) presented conductive loss, 638 (6.4%) presented corticopathy, 4,286 (42.8%) presented endolymphatic hydrops and 1,250 (12.5%) both corticopathy and endolymphatic hydrops. Of the 5,336 (100%) endolymphatic hydrops results, there were 1,335 (24.1%) lesions in the right ear, 1,419 (25.6%) in the left ear, and 2,782 (50.3%) bilaterally; and affected 1,858 (33.6%) men and 3,678 (66.4%) women.

**Conclusion:** There was a higher prevalence of endolymphatic hydrops among all the results, being more common bilaterally and in women.

### 10362 Congenital dacryocystocele: Case report

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**Introduction:** Dacryocystocele is a rare congenital malformation located in the medial epicanthus of the orbit due to obstruction of the nasolacrimal duct. It presents as a cystic lesion, commonly unilateral, with a pinkish-red, non-reducible, non-pulsatile lesion associated with epiphora, crusts on cilia and mucopurulent secretion, which flows back through the lacrimal orifice from birth. The diagnosis is clinical, however, imaging tests may be requested for anatomical and functional evaluation of the lacrimal gland. The treatment is controversial: it consists of Crigler's massage, antibiotic therapy, local heat or probing tear in the last case.

**Objective:** Report a case of congenital dacryocystocele.

**Case presentation:** Full-term newborn, female, 8 days old, with a cystic lesion close to the left lacrimal pathway, associated with outflow of secretion since birth. On examination, he presented bulging with phlogistic signs in the lacrimal sac of the left eye, reddish in color with mucopurulent secretion that refluxed through the lacrimal orifice after compacting it. Computed tomography suggestive of dacryocystocele evidences a cystic lesion with soft tissue density in the medial left corner of the orbit with dilatation of the nasolacrimal canal. The treatment consisted of venous corticosteroid therapy, associated with Crigler's massage 3 times a day. After 72 hours, the patient had clinical improvement, regression of the bulging and spontaneous drainage of secretions in the lacrimal sac.

**Conclusion:** Despite being a rare malformation, dacryocystocele requires an adequate semiological and imaging evaluation to study the tear duct. Therefore, an early and safe should start to avoid the non-recurrence of the condition.

### 10363 Ramsay Hunt Syndrome

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**Introduction:** Varicella-zoster virus is latent in nerve ganglia after an episode of chickenpox. Decreased immunity can reactivate the virus, causing severe pain with the presence of blisters. Facial paralysis, otalgia, vesicles in the external auditory canal and pinna characterize Ramsay Hunt syndrome. In 25% of cases, there is vertigo,

tinnitus, nystagmus and hearing loss. It can be confirmed by PCR in vesicular lesions and in cerebrospinal fluid. Treatment is with antivirals and steroids. The prognosis of facial paralysis is worse. In addition, it can persist with postherpetic neuralgia and other complications.

**Objectives:** Showing the importance of early diagnosis to minimize sequelae.

**Resumed report:** Male patient, 50 years old, kidney transplanted, using immunosuppressant, admitted with facial paralysis. He reported nausea, dizziness, postural instability. He denied fever, otorrhea, ear fullness, tinnitus and hearing loss. On examination, facial palsy grade 3 on the left on the House Brackman scale, otoscopy normal right and left ear with vesicles and blisters at the entrance of the ear canal, tympanic membrane unchanged. He also presented vesicles and ulcers in the left hard palate region, respecting the midline. normal HINTS. Unaltered skull and face tomography. Opted for hospitalization, started acyclovir, dexamethasone and symptomatic. Audiometry and immittance testing without alteration. He presented improvement after hospital discharge, with persistence of grade 3 paralysis. He was referred for motor physiotherapy and outpatient follow-up, with no improvement in the paralysis.

**Conclusion:** Ramsay Hunt Syndrome has a variable clinical presentation and may leave irreversible sequelae.

### 10365 Comparative study of electrophysiological thresholds in children with Zika virus syndrome with and without microcephaly

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**Introduction:** Congenital infection caused by Zika virus (ZIK V) can cause several damages, including hearing impairment. The auditory brainstem response (ABR) is an important tool in audiological assessment and allows us to investigate the electrophysiological activity of the auditory system. Few studies have used ABR-click as a tool to assess the effect of prenatal ZIK V infection on brainstem function in children with and without microcephaly.

**Objective:** To investigate the results of electrophysiological thresholds with ABR-click in children with ZIK V infection and to correlate with the presence of microcephaly.

**Methods:** Descriptive, cross-sectional and retrospective study. The study included data from 175 children with confirmation of the disease through a positive RT-PCR laboratory test, who underwent the ABR-click test. We compared the electrophysiological threshold in children with and without microcephaly. In order to verify the association between the presence of microcephaly and the presence of hearing impairment, Fisher's exact test was used. The value of statistical significance adopted was equal to 5% ( $p \leq 0.05$ ). The SPSS Statistics software, version 25.0, was used.

**Results:** There was a statistically significant difference between individuals with and without microcephaly in relation to altered electrophysiological thresholds, where children with microcephaly showed more alterations. **Conclusion:** An association was observed between the presence of microcephaly and the presence of change in the electrophysiological threshold.

**Keywords:** auditory brainstem response (ABR), microcephaly, Zika virus, hearing.

### 10368 Prevalence of hearing alterations in children with Zika virus syndrome

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**Introduction:** Recent recommendations say that the congenital Zika virus syndrome (ZIK V) must be included as a risk



indicator for hearing impairment. The identification of alterations in the auditory system in children are extremely important as it is known that the anatomophysiological integrity of the auditory system is a prerequisite for normal language development.

**Objective:** To investigate the results of electrophysiological thresholds with auditory brainstem response (ABR) test in children with ZIK V infection and to establish the prevalence of hearing loss, referring to high frequency regions (2000 Hz to 4000 Hz).

**Methods:** Descriptive, cross-sectional and retrospective study. The study included data from 175 children, with confirmation of the disease through a positive RT-PCR laboratory test. Children with other head and neck malformations or with a positive result for other congenital infections were excluded from the study. 327 ears were analyzed (one child did not have the right ear studied and 4 children did not have the left ear studied). The study investigated the lowest intensity to capture the V wave. Results for electrophysiological thresholds between 20 and 30 dB NA were considered normal, and results above 30 dB NA were considered altered.

**Results:** Based on the sample, 313 (95.7%) ears presented normal electrophysiological thresholds and 14 (4.2%) ears presented altered results.

**Conclusion:** The prevalence of auditory alterations in children with ZIK V for the high frequency region is 4.2%.

**Keywords:** hearing loss, auditory brainstem response (ABR), microcephaly, Zika virus.

### 10369 Hoarseness in pediatric patient

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A 1-year and 3-month-old female patient, on her first appointment at the Otorhinolaryngology Service of the HU-UFS, complaining of stridor since birth, worsening for 3 months and associated with hoarse crying in the same period. Mother reports that the patient was born at term and vaginally. He needed a bed in a neonatal intensive care unit, with early intubation. Mother reports orotracheal intubation for 17 days. He was discharged without tracheostomy. On videonasolaryngoscopy examination, we noticed: left arytenoid palsy and right arytenoid paresis, with anterior vocal fold paralysis in adduction (with the folds closed). With a diagnostic hypothesis of incoordination of arytenoids due to a probable congenital etiology.

Airway changes often present with stridor. Its main cause in newborns and infants is congenital changes in the larynx. Specific etiological diagnosis can be performed with fibronasolaryngobronchoscopy, which is essential for the proper management of these children. Generally, the approach is expectant. However, in patients with systemic alterations, tracheostomy may be necessary to ensure airway patency.

### 10371 Complication of chronic cocaine use in need of surgical treatment

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**Introduction:** The recreational use of cocaine has remained in society, over the years, mainly because of stimulant effects, bringing related clinical pathologies. Nasal administration of the drug induces local vasoconstriction, ischemia and irritation of the exposed tissue. Mucosal injury mechanisms include inflammation, ulceration, chondritis, and septal necrosis. In addition, 5% of chronic rhinitis are drug-induced. Atrophic rhinitis and chronic sinusitis occur due to a continuous inflammatory response in the nasal mucosa and paranasal sinuses, respectively. Dacryocystitis can be presented as a complication of sinusitis.

**Objectives:** Report the case of a patient undergoing nasal plastic reconstruction and reconstitution of nasal functionality due to the consequences of chronic cocaine use.

**Resumed report:** P.D.B, male, 38 years old, ex-drug user, stopped 3 years ago, sought plastic surgeon for recurrent dacryocystitis on the left and nasal deformity related to cocaine use. He was referred to otolaryngologist for functional evaluation. The following exams were performed: videonasofibroscoy, diagnosing atrophic rhinitis and wide septal perforation; Contrast-enhanced computed tomography dacryocystography of the lacrimal pathway showing obstruction on the left at the level of Krause's valve with signs of dacryocystitis and chronic sinusitis. Seeking the best treatment to preserve nasal functionality, en-donasal endoscopic dacryocystorhinostomy was performed to treat lacrimal duct obstruction and, in addition, functional endoscopic sinus surgery to improve nasosinusal ventilation and reconstitute mucociliary clearance.

**Conclusion:** Faced with cases of nasosinusal alterations triggered by the use of cocaine, the importance of an early diagnosis is evident in order to avoid further damage and the need for surgical interventions.

### 10375 Chronic suppurative otitis medium in elderly patient

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G.L.S., 78 years old, class IV hypertensive and poorly controlled insulin-dependent diabetic. In the first consultation at the otorhinolaryngology clinic of the University Hospital of Sergipe due to otorrhea and otalgia on the left side that had started 8 months ago and evolved to ipsilateral grade IV peripheral facial palsy 4 months ago. He had been treated in a private outpatient service with beta-lactam and auditory canal cleaning, without improvement. Chose to start hospital clinical treatment with third-generation quinolone and clindamycin, hospitalization for clinical compensation and surgical schedule. After 4 weeks of hospitalization, the patient was compensated for hypertension and diabetes. He presents a mastoid tomography report showing a veiling of the left mastoid, with petrous apex extension and ipsilateral parotid. Radical mastoidectomy surgery with meatoplasty is indicated. Patient progresses with improvement of otological symptoms. In follow-up for 4 months at the outpatient clinic without otological complaints.

Chronic otitis media is defined as an inflammatory process of the middle ear mucosa for more than 3 months. As a risk factor, there are poorly controlled systemic diseases, such as diabetes mellitus and hypertension. Precarious socioeconomic conditions negatively influence the worsening of the disease. Clinical treatment with compensation for comorbidities is essential, but curative treatment is surgical.

### 10376 Jugulotympanic glomus with cranial invasion: Case report

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**Introduction:** The paragangliomas or glomic tumors are rare neuroendocrine tumors derived from paraganglia. Conductive hypoacusis and unilateral pulsatile tinnitus are expected due to the erosive capacity on adjacent structures due to intense vascularization, affecting the ossicular chain, infiltration of the fallopian canal, causing facial paralysis, or bleeding upon manipulation with protrusion into the external auditory meatus. Diagnosis is clinical associated with radiological exams. Treatment considers age, growth rate, associated diseases and neurovascular structures involved.

**Objectives:** To report a case of glomus jugulotympanic, anatomical repercussions, emphasizing the importance of early diagnosis for possible curative surgical treatment.

**Case report:** DHS, female, 74 years old, with hypothyroidism, attended the otolaryngology service complaining of epistaxis, otorrhea, tinnitus and hearing loss. History of left peripheral facial palsy for 5 years and left ear surgery for 30 years, without histopathological report. The exam shows tumor occupying the

external auditory meatus and left cavum. MRI showed a large solid lesion with irregular contours, expansive appearance, intense contrast uptake with epicenter in the jugular foramen extending to nasopharynx and mastoid to the left, meningeal thickening and indentation in left middle fossa, compatible with a voluminous jugulotympanic glomus. Mass involving left internal carotid artery reducing its caliber. There is an expansive nodular formation with mild contrast uptake in sella turcica.

**Conclusion:** Emphasize the importance of early diagnosis of jugulotympanic glomus in order to avoid tumor expansion, bone destruction and cranial infiltration, allowing curative treatment.

**Keywords:** glomus, hearing loss, otorrhea.

### 10390 Nasal paraganglioma: A case report and literature review

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**Introduction:** Paragangliomas are neuroendocrine tumors. The head and neck paragangliomas are very rare, with the majority originating in the carotid body, the jugular bulb and the vagal body. Paragangliomas of the nasal cavity and paranasal sinuses are very unusual and have slow growing. The symptoms most associated are recurrent episodes of epistaxis, rhinorrhea, nasal obstruction and facial edema. The diagnosis of nasal paragangliomas should include computed tomography, magnetic resonance imaging (MRI) and arteriography. Treatment must be surgical with radical excision of the tumor. Partial resections lead to recurrence requiring re-interventions or association with radiotherapy treatment.

**Objectives:** Report a rare case of unilateral nasal tumor and review the literature.

**Resumed report:** Female, 41-years-old, with peripheral facial paralysis on the left has been doing conservative treatment for 3 years without improvement. Reported nasal obstruction on the left and epistaxis 1 year ago. Anterior rhinoscopy showed a polypoid mass in the left nasal cavity. Nasofibroscope showed a lesion in the left nasal cavity, which extended from the rhinopharynx to the middle ear, with invasion of the internal auditory meatus. An incisional biopsy was performed which diagnosed nasal paraganglioma. The patient is in program for surgical approach.

**Conclusion:** Nasal paragangliomas should be included in the differential diagnosis of unilateral nasal tumors due to the morbidity they can cause and their tendency to progressive invasion of vital structures and local recurrence, if not surgically removed.

**Keywords:** nasal paraganglioma, neuroendocrine tumors, nasal cavity.

### 10392 Hemangiopericytoma of the nasal cavity - a rare vascular tumor: Case report and review literature

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**Introduction:** Hemangiopericytoma is a rare vascular tumor, representing about 1% of vascular tumors and may appear anywhere in the body, but 15 to 30% of these tumors are found in the head and neck region. Involvement in the nasal and paranasal cavities is unusual. Nasal hemangiopericytomas cause nasal obstruction and epistaxis. Presents as polypoid mass, with slow and progressive growth, being locally infiltrative and occasionally metastatic. Diagnosis of this tumor is only possible with histological examination. Surgical resection of the tumor is the treatment of choice. Radiotherapy is used in some cases where the location and size of the lesion did not allow resection.

**Objectives:** Report a case of nasal hemangiopericytoma and review the literature available about the subject.

**Reported Case:** 71 year old, female, referred left nasal obstruction and three episodes self-limited of epistaxis last year. In anterior rhinoscopy, there was a tumor in the left nasal cavity, and an MRI with contrast of the paranasal sinuses was performed with an hypervascular expansive nasosinus tumor. The patient underwent endonasal surgery for complete excision of the lesion, and the diagnosis of hemangiopericytoma was confirmed postoperatively, by histopathological analysis. The patient is in postoperative care with improvement of symptoms.

**Conclusion:** Although rare, hemangiopericytoma of the nasal and paranasal cavity must always be considered as a differential diagnosis of nasal tumors, especially when it is a vascular tumor. It is characterized by having a benign behavior, with a favorable prognosis.

**Keywords:** hemangiopericytoma, nasal cavity, vascular tumors, nasal obstruction.

### 10395 Diffuse large B-cell lymphoma of the sinonasal cavities: A case report

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**Introduction:** Lymphomas, which are solid cancers of the lymphoreticular system, are subclassified as Hodgkin's lymphoma, comprising approximately 10% of all cases, and non-Hodgkin's lymphoma, 90% of all cases. Diffuse large B-cell lymphoma is the most common type of non-Hodgkin's lymphoma, 30% of the total, and arises from extranodal organs in about 30% of cases, most commonly gastrointestinal tract, skin, bone, or genitourinary tract. Sinonasal lymphoma is rare, representing only 1.5% of all lymphomas. Patients often present with unspecific sinonasal symptoms mimicking benign inflammatory sinonasal disease. Therapy for sinonasal lymphoma remains nonsurgical, with most patients treated with chemotherapy and/or radiation therapy.

**Objective:** To report a clinical case of sinonasal diffuse large B-cell lymphoma and nonsurgical therapy.

**Resumed report:** M.G.G., Female patient, 43 years old, with progressive ocular proptosis for 20 days, with restriction of eye mobility, with no change in visual acuity. Associated with unilateral nasal obstruction, rhinorrhea and hyposmia. Nasofibroscope showed a lesion in the left middle nasal meatus. Radiographic studies demonstrated left maxillary, ethmoid and frontal sinuses opacification with erosion of the cribriform lamina, enlargement of the osteomeatal complex and invasion of the left orbits. Biopsy was performed with immunohistochemical evaluation, with a histologic diagnosis of Diffuse Large B-Cell Non-Hodgkin's Lymphoma. Treatment included chemotherapy and radiotherapy with symptom regression. Remains in oncological follow-up.

**Conclusion:** Sinonasal lymphoma is a rare rhinologic entity. Histologic diagnosis is of paramount importance, and clinicians must remain cognizant of this entity to differentiate it from other sinonasal malignancies. Chemotherapy and radiation are the main therapies.

### 10397 Multidisciplinary approach in an immunosuppressed patient with necrotizing external otitis

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**Introduction:** Necrotizing external otitis is an infection of the external auditory meatus that can compromise skull bones, common in elderly diabetic patients or immunosuppressed patients. It is a therapeutic challenge when it affects patients with multiple comorbidities.

**Objectives:** Report the presentation of the pathology in its late diagnosis and the benefits of multidisciplinary monitoring.

**Summary Report:** EF, 75 years old, with intense otalgia on the right, radiating to the temporal region and hemiface associated

with ipsilateral seropurulent otorrhea. Started two years ago, with a significant worsening in the last three months. It presents as comorbidities, Cardiopathy and B cell lymphoma. Denies otologic past and Diabetes mellitus. Treated with antibiotic therapy and ear drops, with no response to treatment, even to drug escalation. A CT image examination revealed external and middle ear filled with soft tissue density material, which promotes erosions of the anterior wall of the external auditory canal and communication with the right TMJ and MRI showed osteomyelitis in the skull base. A surgical approach was decided and a radical mastoidectomy was performed with conduit cleaning, associated with meatoplasty. The patient responded positively to the approach, showing improvement of the infectious condition to antibiotic therapy and clinical recovery.

**Conclusion:** Even with late diagnosis, the patient was efficiently managed by a multidisciplinary team at the UFS University Hospital, involving professionals from hematology, infectology, cardiology, otolaryngology and intensive care medicine. The careful adjustment of comorbidities was preponderant for the efficiency of the treatment.

**Keywords:** immunosuppression; otitis; therapy.

### 10399 Peripheral facial palsy and hearing loss due to craniofacial trauma

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**Introduction:** Peripheral facial paralysis results from partial or total damage to the facial nerve. 30% of these injuries are traumatic. The clinical picture is proportional to the degree of nerve damage and treatment must occur early.

**Objective:** Report approach in the face of peripheral facial paralysis and hearing loss after trauma.

**Case presentation:** J.C.S, 44 years old, victim of car trauma. He was rescued by the Mobile Emergency Care Service and referred to the Sergipe Emergency Hospital, where, after primary assessment, a cranial computed tomography was performed, which showed a fracture in the zygomatic region, condyle and right mandibular fossa. He had right hearing loss, mild otorrhea and House-Brackmann grade 5 peripheral facial palsy. After surgery to correct the fractures, he was discharged after 07 days. He underwent rehabilitation with physiotherapy for 10 months, without evolution. After 12 months he underwent a surgical procedure to repair the facial nerve, with no response. In an outpatient evaluation due to hearing loss, ear tomography and audiometry were requested. Audiometry identified moderately severe conductive loss in the right ear. The tomography showed total stenosis of the right external canal and fixation of the stapes and malleus. We opted for the indication of an osteo-anchored prosthesis.

**Conclusion:** Patient with section of the facial nerve in its extracranial segment, unresponsive to the proposed treatment. Indicated hearing aid due to conduit stenosis associated with conductive loss.

**Keywords:** hypoacusis; paralysis; trauma.

### 10402 Case report: Nasolabial cyst

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**Introduction:** Nasolabial cyst comes from the fusion of embryological elements of the maxilla, from remnants of the prolongation of the nasolacrimal canal. It forms on the embryological line of fusion between the lateral nasal process and the maxillary process. A smooth and compressible bulging of the lateral floor is noticed, which can cause obstruction. There is an effacement of the nasolabial sulcus and an inflating of the ipsilateral nasal wing, 10-11% is bilateral. Exeresis is performed through a sublabial incision, and enucleation is the treatment.

**Objective:** inform the characteristics of the lesion so that it can be included in the diagnostic hypothesis and to plan an adequate treatment.

**Case report:** A 39-year-old female patient was seen at the Otorhinolaryngology Service of the Craniofacial Anomalies Rehabilitation Hospital – USP due to a nodular bulging in the nasal floor region, with a progressive increase 9 months ago. Denied nasal obstruction and atopic symptoms. She had a history of cyst removal in the nasal dorsum 24 years ago. In the rhinoscopy a cyst with approximately 8mm in length was seen on the right nasal floor, painful on manipulation. Tomography of the facial sinuses: Cystic formation measuring 2.3 x 2 x 1.4 cm, with thick walls and heterogeneous content, located in the right nasolabial region, with regional cutaneous bulging, displacing the right nasal wing and partially obstructing the meatus, with bone remodeling in the maxilla.

**Conclusion:** Nasolabial cysts are rare and need proper treatment in order to avoid recurrence.

### 10405 Non-Keratinizing nasosinusal epidermoid carcinoma operated on 20 years after misdiagnosis and incorrect treatment

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**Introduction:** Nasosinusal epidermoid carcinoma, rare among the general population, yet the most frequent malignant nasosinusal tumor, is usually diagnosed late with complications associated with its mild and unspecific symptomatology.

**Aim:** To describe a case of a patient with a non-keratinizing nasosinusal epidermoid carcinoma operated on 20 years after a misdiagnosis.

**Case report:** In 2002, patient L.P, female, 84 years old, with complaints of right ocular protrusion, local pain and reduced visual acuity, with progressive development over the course of 3 months. After undergoing nasofibroscopy, without imaging exams, she underwent an urgency endonasal surgery for the exeresis of the lesion in the right nasal cavity.

**Anatomopathology:** Nasopharyngeal carcinoma, referred to an oncologist and submitted to radio and chemotherapy, with clinical improvement. The patient relapsed with the same symptomatology, and underwent several surgeries with the same surgical team, showing similar anatomopathology. In 2021, referred to the Instituto Felippu with complaints of pain in the right eye, epistaxis, chronic posterior rhinorrhea, and continuous total right nasal obstruction. CT with contrast indicated expansive lesion on in the right nasal cavity with implantation on the lateral wall, areas of hyperostosis, and extending to the ipsilateral orbit and cranial base. A surgical procedure was performed in February, 2021 for the exeresis of the tumor.

**Anatomopathology:** Non-keratinizing nasosinusal epidermoid carcinoma patient referred to oncological follow-up.

**Conclusion:** Partial removals or biopsies performed by surgeons with little experience in malignant lesions might result in serious errors in diagnosis, negatively impact real staging, or lead to malignant degeneration.

### 10408 Nasal angiofibroma: An atypical form

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**Introduction:** Nasopharyngeal angiofibroma, also known as juvenile nasal angiofibroma, is a histologically benign but locally aggressive vascular tumor of the nasopharynx and grows in the back of the nasal cavity. The nasal angiofibroma is also aggressive but with peculiarities.

**Objectives:** To report a case of atypical angiofibroma nasal.

**Resumed report:** Patient from Paraguay, twenty two years old, with diagnosis of nasal tumor two years ago, worsen five months, loss of sixteen kilograms. Presents nasal obstruction, initially in left nostril, then evolving the right, accompanied by oral breathing and anosmia. Reports continuous yellow nasal rhinorrhea. No epistax. No others comorbidities. The physical examination was observed a bulging of the left nostril with a red and smooth expansive lesion to the exterior, projecting to the rhinopharynx and oropharynx. The tumour was surgically removed without excessive bleeding. The histopathological analysis demonstrated a nasal angiofibroma, with a good evolution after.

**Conclusion:** Nasal angiofibroma is a benign tumor with peculiarities from typical nasopharyngeal angiofibroma which requires a different approach and has most favorable surgical treatment.

**Keywords:** nasopharyngeal tumor, angiofibroma, nasal tumor.

#### 10409 Success in a case of extensive left glomus jugulo-tympanicum

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**Introduction:** Glomus tumors, also called paragangliomas, originate from non-chromaffin cells. The tumor is typically vascular and grows from capillary and precapillary vessels between epithelial cells. The surgical approach is a challenge for surgeons because of its difficult access and proximity to cranial nerves.

**Objectives:** To report a case of surgical success in a extensive left glomus jugulo-tympanicum;

**Resumed report:** A thirty-six year-old patient reports hypoacusia in the left ear that began in 2015 and has worsen progressively. In 2020 he arrived at hospital santa marcelina with a red pulsatile lesion in postero—superior quadrant of tympanic membrane, obstructing approximately 50% of the external ear canal and with mild paresis of left vocal fold. After one year, the glomus totally obstructed the external ear canal, worsen left vocal fold paresis, slight deviation of tongue to the left and reduction of left trapezius muscle strength, a magnetic resonance demonstrated lesion growth, suggesting the dianosis of paraganglioma. Surgical approach was opted with otorhinolaryngology, neurosurgery and head and neck surgery, with tumor resection and without new motor or sensitive deficits.

**Conclusion:** Glomus tumors are difficult to surgically approach, but it is possible with the correct technique to achieve success without new motor deficits.

**Keywords:** paraganglioma, facial nerve, glomus.

#### 10410 Squamous cell carcinoma in nasal vestibule: A case report

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**Introduction:** Malignant lesions in the nasal cavity are rare, accounting for 3% of head and neck neoplasms and 0.2% to 0.8% of neoplasms in general, with squamous cell carcinoma being the most frequent histological type. Most lesions are located in the middle and upper levels of the nasal cavity, obstructing the ostiomeatal complexes.

**Objective:** Report a case of midline squamous cell carcinoma.

**Case report:** ASSN, 70 years old, male, long-time smoker, sought an otorhinolaryngology clinic with a painless ulcerated lesion in the nasal vestibule and columella, which had been evolving for 1 year. Previous clinical treatment with oral cephalixin and topical Mupirocin, with slight improvement. On examination, an ulcerated lesion with erythematous edges, infiltrating, affecting left nasal vestibule, with destruction of the nasal columella and adjacent skin. Biopsy performed and material collected for mycology, bacteriology and histopathology, with investigation for granulomatous diseases.

Direct examinations and cultures were negative and histopathological examination showed poorly differentiated squamous cell carcinoma.

**Conclusion:** Poorly differentiated squamous cell carcinomas are characterized by having a low degree of keratinization and a high degree of atypia. They are tumors with an accelerated growth rate and can metastasize earlier. An atypical location, in the nasal vestibule or columella, can delay the correct diagnosis. The patient neglected medical care after the first symptoms, a fact that led to greater local destruction. On the other hand, having access to medical care, he obtained a definitive diagnosis in less than a month and was referred for specialized treatment in an oncology service.

#### 10411 Nasal tuberculosis with disseminated apresentation

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**Introduction:** Tuberculosis is an infectious disease caused by mycobacterium tuberculosis, popularly known as koch's bacillus (BK). When disseminated, it can cause symptoms in any organ, including the sinuses, and a severe systemic condition that requires attention and prompt treatment.

**Objectives:** To report a case of disseminated tuberculosis diagnosed by surgical drainage of the maxillary sinus.

**Redumed report:** patient with biparietal headache after nasal obstruction for ten days, after two weeks of upper airway infection, developed 4 days later with diplopia and paresis in limbs. During investigation, she performed cranial magnetic resonance with opacification of the right maxillary sinus. On physical examination, she has right eye lateral rectus muscle paresis. Nasofibrolaryngoscopy with bulging and drainage of purulent secretion from the right maxillary sinus; cerebral spinal fluid and chest tomography suggestive of tuberculosis infection; we opted for drainage of the right maxillary sinus and material was collected for a rapid tuberculosis test, with a positive result for mycobacterium tuberculosis; successfully initiated ripe regimen and clinical improvement.

**Conclusion:** the drainage of an acute sinusopathy in some cases can change the prognosis and guide the correct treatment of several systemic diseases, such as tuberculosis.

**Keywords:** mycobacterium tuberculosis; sinusites; purulent rhinorrhea.

#### 10412 Nasal foreign body, battery: A case report

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**Introduction:** Nasal foreign bodies are common occurrences in children, the main age group being between one and six years old, and mainly include toys, papers and food. Nasal symptoms include serous runny nose and nasal obstruction that progress to fetid and purulent unilateral rhinorrhea. Alkaline batteries cause great inconvenience, as they cause serious damage to the nasal skeleton and are considered otorhinolaryngological emergencies.

**Objective:** Report a case of nasal foreign body caused by alkaline battery.

**Case report:** DLFVS, 4 years old, male, attended the otorhinolaryngological care, accompanied by the guardians with a picture of nasal obstruction and introduction of a foreign body in the nose for 24 hours. On examination, mild periorbital edema on the left, ipsilateral nasal cavity with rusty secretion and metallic foreign body impacted in Cottle's III-IV area. An attempt was made to remove a foreign body with a curette, Itard probe and a magnetized stylet, without success. Foreign body removed with bayonet forceps, showing signs of oxidation. After removal, hyperemic nasal mucosa with a small shallow ulcer in the caudal septum. Minor undergoing clinical treatment and otorhinolaryngological monitoring, with complete recovery.



**Conclusion:** With the introduction to the market of alkaline batteries in the form of discoid buttons, batteries have become an important point of medical concern. The presence of batteries in the nasal cavity can cause burns in the mucosa, epistaxis, changes in smell and septal perforation, which can compromise the child's facial growth. Early detection is therefore essential for handling batteries without serious injury.

#### 10413 Extensive sialolithiasis of the submandibular gland - case report

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**Introduction:** Sialolithiasis is an affection of the salivary glands that occurs due to the formation of stones that can vary in size and location.

**Objectives:** Case report for literature discussion.

**Resumed report:** Male, 30 years old, born in Rio de Janeiro, presenting psychiatric disorder without follow-up. He has a history of bulging in the left submandibular region for seven years, with progressive worsening of the condition, evolving with pain in the tongue floor, worse on chewing. He reported a previous diagnosis of sialolithiasis in Warton's duct, without clinical follow-up. Computed tomography of the neck showing a hyperdense image, with well-defined limits, measuring approximately 11.96mm x 7.37mm, located in the Warton's duct, compatible with calculus formation in its interior. Physical examination showing a large calculus, measuring around 5 cm, located in Warton's duct on the left, occupying the entire floor of the tongue. Outpatient calculus excision was performed with the aid of a bayonet forceps and topical anesthesia with 10% xylocaine. After removal of the stone, a re-epithelialized area was evidenced, with exposure of the sublingual ductal path.

**Conclusion:** Outpatient follow-up is necessary as this condition can be recurrent and damage the anatomy of the salivary glands ducts.

**Keywords:** submandibular gland sialolithiasis, sialolithiasis, salivary glands.

#### 10414 Chinese cone for the treatment of bruxism, evolving to external ear canal burn - Case report

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**Introduction:** The Chinese Cone is an ancient technique used to alleviate pain, migraines, respiratory allergies, among others, which has gained popularity. It is performed by applying a cone and setting fire to its tip. As it is a technique that has become increasingly prevalent, it is important that the otolaryngologist is aware of the method and its complications.

**Objectives:** Case report for discussion in the literature.

**Resumed report:** Female, 30 years old, seeks otolaryngology service with intense right otalgia after performing a Chinese cone for bruxism treatment. Left otoscopy without alterations, right otoscopy showing bullous lesions and hyperemia throughout the external auditory meatus, extending to the tympanic membrane. Rhinoscopy and oroscopy without alterations. The dressing was made with an ointment containing betamethasone dipropionate, ketoconazole and neomycin sulfate, non-steroidal anti-inflammatory and oriented not to wet the ear. Patient returns after three days with otalgia improvement. Aspiration of ointment in the conduit was performed, showing improvement of bullous lesions, maintaining a slight hyperemia and presence of hardened wax covering the intact lower quadrant of the tympanic membrane. Wax removal performed in an outpatient clinic, with the aid of a curette, prescribed an ear drop containing betamethasone, chlorphenesin and tetracaine hydrochloride. Patient returns without complaints, presenting otoscopy without alterations.

**Conclusion:** The Chinese cone is used as a therapeutic method for various symptoms and pathologies. Therefore, it is important to be aware of all its complications to guide the patient, showing that the method can have consequences.

**Keywords:** chinese cone, bruxism, chinese medicine.

#### 10415 Intracochlear Schwannoma: Two case reports

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**Introduction:** Vestibular schwannomas, also known as acoustic neuromas, are benign and slow-growing tumors which appear in several topographies of the vestibulocochlear nerve. Kennedy proposed a classification, based upon magnetic resonance observations, identifying different sites of the tumor: intravestibular, intracochlear, intravestibulocochlear, transmodiolar, transmacular, transotic and tympanolabyrinthine. Two patients diagnosed with intracochlear schwannoma are described, as well as diagnostic approaches and therapeutic options.

**Objectives:** The aim of the study, taking these two cases in to consideration, is to demonstrate when we can suspect the presence of intracochlear schwannoma. Magnetic resonance imaging is an important diagnostic tool to identify and differentiate these tumors from other diagnoses. Furthermore discuss conservative and invasive approaches.

**Resumed report:** A 65-year-old woman presented with tinnitus and neurosensorial hearing loss in the right ear. After hearing tests, a contrasted resonance was made and showed a 1.9 millimeters tumor inside the right cochlea.

A 51-year-old-man with similar symptoms presented with a 2.7 millimeters tumor on the apical turn of the left cochlea. In these images the high signal intensity fluid was replaced by hypointense lesions in T2.

After the diagnosis, a wait-and-see strategy approach was chosen, with both patients being monitored regularly.

**Conclusion:** Intracochlear schwannomas should be suspected in patients with unilateral asymmetrical hearing loss. Magnetic resonance with gadolinium is considered the best diagnostic tool, as clinical findings can be inconclusive. The treatment will not always need to be surgical, and more conservative approaches should be considered.

#### 10417 Analysis of the results of laryng micro surgery of dysphonic patients with benign laryngeal lesions from HCFMB-UNESP

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**Introduction:** Benign laryngeal lesions are cause of dysphonia and many are irreversible to clinical treatments requiring microsurgery. Surgical manipulation is delicate and restricted to the lesion. However, complete vocal recovery can be slow and generate scars. Literature is scarce in demonstrating the results of laryngeal microsurgery as well as in identifying factors that delay vocal recovery.

**Objectives:** To analyze the results of laryngeal microsurgery performed on adult patients at HC UNESP. Methodology: It is a retrospective study. The clinical records of adult patients seen at the HC-FMB Voice Disorders clinic who underwent laryngeal microsurgery between 2019 and 2020 were evaluated. Pre and postoperative parameters were analyzed: demographic data, videolaryngoscopic reports, time since surgery, adherence to vocal therapy, smoking, auditory-perceptual and acoustic evaluation.

**Results:** 38 patients were included (10 H; 28M), 71% between 41 and 60 years old, 29 with Reine edema and 9 with polyps. Postoperative evaluations were performed between three and six months. There was a predominance of women in both injuries. In the postoperative period, there was complete voice improvement in 16

patients (42%) and partial in 25 (58%), with Reinke's edema (19) and polyps (3).

**Conclusions:** We recorded a significant improvement in voice in most patients who underwent microsurgery of the larynx for benign lesions. Some patients maintained vocal symptoms, albeit of lesser intensity, changes in vocal analyzes and in video-laryngoscopic exams. We highlight as possible causes the maintenance of smoking, early vocal abuse and low adherence to speech therapy in the postoperative period

#### 10418 Primary mucosal melanoma in the nasopharynx: A case report

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UNESP

**Introduction:** Primary Mucosal Melanoma (PMMs) is characterized by atypical melanocytes proliferation. Furthermore, primary mucosal melanoma is a rare disease compared to skin melanoma. Its principal localization is head and neck, approximately 55% of all cases of mucosal melanoma, PMMs occur most frequently in the nasal cavity and paranasal sinuses. When localized in the nasopharynx, the main symptoms are nasal obstruction, epistaxis, hyposacusis, cervical lymph node. The diagnosis suspicion is a combination of clinical manifestation and nasal endoscopy exam finally confirmed by local biopsy.

**Objectives:** This text aims to describe a rare melanoma case with an atypical location such as the nasopharynx. Therefore, the text proposal is to offer their readers a recognition pattern to identify similar rare cases in their practices.

**Resumed report:** A 77 years old female patient that presented hearing loss, not pulsatile tinnitus, nasal obstruction and epistaxis. At the physical exam, it was found a red and retracted tympanic membrane. Furthermore, the nasal endoscopy showed a nasopharynx lesion, which was biopsied. As a result, the biopsy confirmed a Primary Mucosal Melanoma with compromised edges. An MRI exam demonstrated local disease. As a result of radiotherapy treatment, the patient had a good response improving overall symptoms.

**Conclusion:** Even though primary nasopharynx mucosal melanoma is a rare disease, it is aggressive and usually has poor outcomes due to its difficult diagnosis and unspecific and insidious clinical manifestation, especially in the Eustachian tube as this case represents.

**Keywords:** primary mucosal melanoma, head and neck melanoma, nasopharynx tumor.

#### 10421 Acute vestibular syndrome following cerebellar stroke in emergency department: Case report

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**Introduction:** Dizziness, vertigo and imbalance are common in the emergency department. 35% of the cerebellar strokes are not diagnosed in the initial evaluation of the patients.

**Objectives:** Show the relevance of the otoneurological evaluation in patients with vertigo in the emergency department.

**Resumed report:** The current case reports on a female patient, 31-years-old, with persistent dizziness and imbalance lasting five days. Pathological findings included one-way nystagmus on the left, weakness in superior left member, ataxic gait, vomiting and headache. Although skew deviation and head impulse test were negative. The pathological gait, weakness in the member and the strong headache indicated a central genesis. Therefore, cranium computed tomography was performed and revealed a left-sided cerebellar infarction.

**Conclusion:** More than 15% of patients presenting with dizziness to an emergency department have dangerous causes. A proliferation of recent research has supplied clinicians with high-quality data to guide bedside diagnosis and management, particularly with regard to identifying cerebrovascular causes.

**Keywords:** nystagmus, vertigo, cerebellar infarction.

#### 10422 Extensive cystic adenoid carcinoma in a patient with exclusive headache complaint: A case report

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**Introduction:** Adenoid Cystic Carcinoma is a relatively uncommon type of malignant salivary glands neoplasm, infiltrative and slow growing. It appears as a hardened nodule covered by intact mucosa and has a propensity to invade peripheral nerves, with a high recurrence rate, with metastasis in other organs. Only 6.5% of patients present pain, which is associated with advanced or recurrent neoplasms.

**Objectives:** To report a case of extensive Adenoid Cystic Carcinoma whose clinical manifestation was solely headache.

**Resumed report:** A 70-year-old female refer headache in the right temporal region, without nasal obstructive or rhinorrhea. A nasal videoendoscopy identified a rounded lesion, originating from the middle meatus and right sphenoidal recess, in addition to purulent retropharyngeal secretion. Computerized Tomography of the sinuses showed an expansive lesion occupying the right maxillary sinus opening, ethmoidal infundibulum, frontal recess, right nasal cavity, middle and superior nasal meatus and anterior ethmoid cells. The cranial magnetic resonance imaging showed an expansive lesion with hypersignal on T2, with an epicenter in ethmoid cells on the right, of 4.6 cm in its longest axis, determining an expansive effect, with the presence of bone destruction. Tumor resection was performed by intranasal endoscopy. The pathological examination confirmed Adenoid Cystic Carcinoma. Patient was referred to the oncology service.

**Conclusion:** Adenoid Cystic Carcinoma usually has its aggressiveness underestimated due to its slow growth and poor symptomatology. However, it is a neoplasm with a poor prognosis that requires long follow-up after diagnosis.

**Keywords:** adenoid cystic carcinoma, endoscopic surgery, early detection of cancer, headache.

#### 10423 Pott's puffy tumor in young adult: A case report

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**Introduction:** Pott's puffy tumor is a bone complication of frontal sinusitis, which benefits from immediate treatment with antibiotics and surgical approach. Its early recognition is essential for proper management.

**Objectives:** to report a case of Pott's tumor with frontal sinusotomy Draf III type.

**Report resumed:** We present the case of a 25-year-old man with headache and swelling in the forehead who was initially treated with oral antibiotic therapy, without success. After clinical deterioration and further investigation, computed tomography scan appearances were consistent with the diagnosis of Pott's Puffy tumor. Needle decompression, endoscopic frontal sinusotomy (Draf III), partial left maxillectomy and intraoperative cultured swabs were performed.

**Conclusion:** Pott's Puffy tumor should be a diagnosis in mind for patients with sinusitis who present with frontal region edema.

**Keywords:** sinusitis, pott's puff tumor, sinusotomy.

#### 10426 Case report: Persistent stapedia artery: intraoperative finding

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**Introduction:** Persistence of the stapedia artery (PEA) is a rare congenital anomaly, difficult to be found on imaging exams and usually diagnosed intraoperatively or post mortem.

**Objectives:** Reports the case of a patient with otosclerosis diagnosed with PEA during stapedotomy. The exams and images of the surgical procedure are documented, contributing to the diagnostic analysis and interpretation.

**Resumed report:** A 34-year-old female patient sought an otolaryngologist complaining of progressive bilateral hearing loss. In otoscopy, a bluish retrotympanic image was seen on the right, interpreted as Schwartz stain. In the audiological evaluation, moderate to mild bilateral ascending mixed loss, worse on the right, SRI within the normal range, bilateral type A tympanometry and absence of contralateral stapedia reflexes. Tomography (CT) showed bone rarefaction anterior to the oval window, bilaterally, without other findings. She was diagnosed with otosclerosis and referred for a right stapedotomy. During surgery, after accessing the middle ear through a tympanic-meatal flap, a vascular image was visualized on the cochlear promontory, originating from the middle ear floor, anteroinferior region, towards the stapes anterior crura, hugging it posteriorly and running between the crus, over the oval window, compatible with PEA. Due to technical difficulties resulting from the anatomical alteration, the surgery was interrupted. The patient was oriented and referred for hearing aid fitting.

**Conclusion:** In this case, the image identified as Schwartz stain was treating the PEA visualized by translucency through the tympanic membrane and it wasn't possible to make a previous diagnosis by CT.

#### 10427 Clinical criteria for indicating sphenopalatine artery surgery: Integrative literature review

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**Introduction:** Severe epistaxis usually has a posterior origin and often requires more intensive care. Patients with posterior epistaxis who continue to bleed despite the use of conservative methods are referred for surgical treatment. Wexham's criteria are used to try to recognize, in severe epistaxis, which one will require ligation of the sphenopalatine artery. They are: persistent posterior nasal bleeding after anterior and posterior nasal packing, need for blood transfusion and/or a drop in hemoglobin <4 g/dL, 3 episodes of recurrent epistaxis requiring repeated packing during hospitalization and repetitive hospital admissions for ipsilateral recurrent epistaxis (>3 occasions in the last 3 months). One of those criteria would indicate surgical intervention.

**Objectives:** This integrative review was performed in order to find clinical or laboratory criteria in the literature that could predict surgical intervention in severe epistaxis.

**Data Synthesis:** In addition to the criteria mentioned by Wexham, other predisposing factors may contribute to surgical intervention for severe epistaxis, such as a history of hypertension, use of anticoagulants, blood dyscrasias, trauma, vascular anomalies, upper respiratory disease (rhinitis, sinusitis, polyps), age group (>60 years), male gender, neoplasms, septal deviation and previous nasal surgery.

**Conclusion:** Wexham's criteria are valid to define severe epistaxis, however, other risk factors must be evaluated and recognized for indication of surgical treatment. The authors suggest that a grading score would perform a better understanding and could be use in a clinical and scientific manner to predict the need of surgical intervention in severe epistaxis.

**Keywords:** epistaxis, sphenopalatine artery, surgery.

#### 10429 Extradural hematoma as a complication of cochlear implant in a child: A case report

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*Instituto de Medicina Integral Prof. Fernando Figueira (IMIP)*

**Introduction:** Cochlear implant is a safe and effective treatment to rehabilitate patients with severe-to-profound bilateral sensorineural hearing loss. Complications are classified as major, which need surgical interventions or threaten the patient's life, and minor, which tend to resolve spontaneously or with conservative treatment. Post-implant hematoma is considered a minor complication, but it can have serious consequences, preventing adhesion of the external device, or causing infection, with risk of implant extrusion. Extradural hematoma, however, is rarely reported in the literature, being a major complication, more common in the late postoperative period.

**Objectives:** To report a case of post-implant extradural hematoma with a favorable outcome after surgical drainage and hemostasis with bipolar cautery.

**Resumed report:** A.G.S.D.O, 6 years old, with profound bilateral sensorineural hearing loss, underwent cochlear implant surgery in November 2020. On the 11th postoperative day, he evolved with epistaxis, bulging of the skull and vomiting, been diagnosed with an extradural hematoma close to the surgical site. On readmission, denied head trauma before symptoms. Surgical drainage of the hematoma was performed by the Otorhinolaryngology team, in addition to hemostasis and a compressive dressing. No large bleeding vessels were identified during the approach. The patient evolved with control of bleeding and was discharged 7 days after admission.

**Conclusion:** Epidural hematoma is a major and rarer, life-threatening complication that must be closely monitored in the postoperative period. Studies have correlated the appearance of hematoma with the type of skin incision, coagulation disorders and the approach through a petrosectomy.

**Keywords:** cochlear implant, hematoma, complications.

#### 10430 Laryngeal tuberculosis: A mimicking disease

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**Introduction:** Laryngeal tuberculosis develops by the direct inoculation of secretion rich in Koch bacilli in the laryngeal mucosa. The clinical presentation is varied. There is also variation in the aspect of the lesion at laryngoscopy. In some rare cases, it may evolve with involvement of the laryngeal nerve. In case of this diagnostic hypothesis, chest X-rays, BK research for sputum and biopsy should be requested to exclude conditions such as cancer and other granulomatous diseases. Complications are rare, but it can happen in case of delay in diagnosis and therefore, delay in the beginning of treatment. When properly conducted, the treatment has a quick and effective response, and the lesions disappearing in 2 months.

**Objectives:** Stand out the epidemiological importance of tuberculosis as an isolated laryngeal involvement, and the relevance of an early diagnosis to avoid complications.

**Resumed report:** R.W.S.R., male, 69 years old, 44 kg, COPD, ex-smoker, very thin, complaining of hoarseness, mild dysphagia and chronic dry cough. Videolaryngoscopy showed an infiltrative lesion of vocal folds. A laryngeal microsurgery was performed and the histopathological analysis showed a result compatible with tuberculosis. The diagnosis was confirmed by a sputum test and specific treatment was performed.

**Conclusion:** Laryngeal tuberculosis can mimic many diseases. It is extremely importante to consider it as a differential diagnosis in otorhinolaryngology. As this is a curable disease, the correct and

early diagnosis will allow for adequate treatment, avoiding future complications which in this case are difficult to manage.

**Keywords:** laryngeal tuberculosis, extrapulmonary tuberculosis, dysphagia.

**10431 Spontaneous cerebrospinal fluid rhinorrhea – Case report**  
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**Introduction:** Rhinogenic cerebrospinal fluid fistula is a communication between the subarachnoid space and the nasal fossa or paranasal sinuses, resulting from an anatomical defect in the dura, bone and mucosa. Spontaneous cerebrospinal fluid fistula are rare events, about 3%, with possible deleterious complications, tend to occur in adults over 30 years of age, with a female preponderance.

**Objectives:** Describe the case of a patient with spontaneous nasal cerebrospinal fluid fistula.

**Resumed Report:** Female patient, 44 years old, complaining of intermittent frontal headache, rhinorrhea on the right side when bending the head, and posterior dripping in supine position. The patient denies a history of meningitis, trauma or previous nasal surgery. Computed tomography of the paranasal sinuses revealed mild mucous thickening of the maxillary sinuses, obliteration of the sphenoidal recess on the right, tortuosity of the nasal septum. Nasofibroscope revealed the presence of hyaline rhinorrhea in rock water in the right olfactory fossa. Acetazolamide was prescribed, with no improvement in the condition. In this case, the patient was referred for surgical correction.

**Conclusion:** The most common site for spontaneous fistula formation is the cribriform plate, due to its fragility and presence of multiple fenestrations. As it is a rare pathology, the case report about spontaneous nasal cerebrospinal fluid fistula is extremely important to contribute to medical knowledge. Therefore, the otolaryngologist has an important role in making the diagnosis and assisting the patient, in order to avoid complications such as the development of pneumocephalus, meningeal infection and its sequelae.

**Keywords:** spontaneous cerebrospinal fluid fistula, rhinogenic, spontaneous.

**10432 Esthesioneuroblastoma: A rare nasal cavity tumor**

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*Casa de Saúde Santa Marcelina*

**Introduction:** Esthesioneuroblastoma (ENB) is a rare malignant tumor originating from olfactory neuroectoderm. Presents with moderate male predominance and bimodal distribution, in the second and fifth decades of life, with tendency to recurrence. It presents nonspecific nasal symptoms such as obstruction, rhinorrhea, epistaxis, and it may present extranasal symptoms depending on other structures invasion. Diagnosis is made through biopsy, complemented with imaging tests, and treatment is based on a combination of surgical resection with chemotherapy and radiotherapy.

**Objective:** To describe a case of unilateral nasal obstruction associated with exophthalmos diagnosed with ENB.

**Resumed report:** A 76-year-old female patient reported unilateral nasal obstruction, exophthalmos and eyelid edema on the left, associated with paresthesia in the ipsilateral hemiface for about 4 months, associated with weight loss of 10kg. At rhinoscopy, presents: hyperemic, fibroelastic and irregular surface lesion in the left nasal cavity; right nasal cavity without alterations. Cranial computed tomography showed a solid, infiltrative lesion obliterating the left ethmoidal, frontal and sphenoid sinuses, compromising the pterygopalatine fossa, chewing space and optic nerve on the left; frontoethmoidal bone dehiscence. An incisional biopsy of the tumor was performed and the anatomopathological result showed ENB. The patient was referred to head and neck surgery and neurosurgery for follow-up.

**Conclusion:** ENB presents with nonspecific symptoms that make its diagnosis difficult at an early stage of the disease, in addition to be a rare neoplasm, which results in doubts regarding the best way to conduct the treatment.

**Keywords:** esthesioneuroblastoma, nasal obstruction, olfactory neuroblastoma.

**10434 Nasal Myiasis in Hansen's disease patient: A case report**

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**Introduction:** Hansen's Disease is an important global health concern. Early diagnosis and treatment are needed to minimize the likelihood of consequences for the patient. Infestation of the orofacial region with live worms is likely and a distressing condition that many physicians are not aware of.

**Objectives:** to raise the discussion about the need for early diagnosis of leprosy and how late diagnosis can have consequences for the patient.

**Report resumed:** In this case report we present the case of an elderly male patient with nasal obstruction lasting 20 days, associated with rhinorrhea. He also had skin lesions and enlarged nerves on palpation. Nasal endoscopy revealed abundant mucoid secretion, a large number of larvae and an aspect of granulomatous infiltration of the nose with septal destruction. The patient underwent removal of the insects in the operating room and referred to the dermatology department for monitoring of the condition.

**Conclusion:** Hansen's Disease is still a common entity in our country and should always be a differential diagnosis in all patients with nasal symptoms associated with skin lesions. Patients with Hansen's Disease have decreased nasal sensitivity and are prone to mucosal infestation by insect worms.

**Keywords:** Hansen's disease, worms, septal destruction.

**10435 The use of occipital flap after temporal resection: A case report**

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**Introduction:** A posterior defect with exposed occipital bone can be covered in several ways. The ideal flap should be a locoregional pedicled flap with low morbidity that can reach the occipital bone.

**Objective:** to show the use of an occipital flap in a patient with temporal osteomyelitis and previous resection of skin cancer.

**Report resumed:** In this case report, we present the case of a female patient, 63 years old, with a previous diagnosis of basal cell carcinoma in the ear pinna. The patient underwent radiotherapy and tumor resection in 2019. She developed temporal bone osteomyelitis in 2020. Radical mastoidectomy was indicated and performed for lesion debridement, removal of the necrotic skin of the right temporal region and rotation of the occipital flap covering the temporal defect. She evolved with a good response to the flap, completing the osteomyelitis treatment with intravenous antibiotics.

**Conclusion:** Occipital flap rotation is a good option in patients when the temporoparietal flap is unavailable or compromised.

**10436 Otoplasty and the use of masks at COVID-19: Report of a relapse**

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*Hospital Universitário Getúlio Vargas*

**Introduction:** Prominent ears represent one of the deformities in the structure of the ear, and there may be absence



or reduction in the scapho-conchal angle (anti-helix), hypertrophic or deeper concha, indefinite helix margin and lobe abnormalities. Otoplasty seeks to correct different degrees of deformity in order to obtain aesthetically harmonious and symmetrical ears, without any apparent signs of surgical correction. However, these results may not be achieved, especially when complications occur. With the changes made by COVID-19, where the use of masks was mandatory, we observed a case of recurrence.

**Objectives:** Report a case of new otoplasty due to the use of face masks.

**Summary report:** A 37-year-old man returns to the Otorhinolaryngology service complaining of recurrence of prominent ears after using handmade masks as a form of protection against COVID-19. On physical examination, rupture of Mustardé and Furnas stitches was observed bilaterally, with an angle greater than 30°, confirmed in a new otoplasty performed in the operating room.

**Conclusion:** The surgery aims to prevent recurrence regardless of the technique. With the change in social attitudes due to the new coronavirus, where the use of masks has become an essential tool to reduce its spread, there is an alert regarding the use of handmade masks, which have highly tensioned elastics, causing recurrence of aesthetic procedures.

#### 10437 Foreign body reaction to hyaluronic acid aesthetic filling: A case report

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**Introduction:** Minimally invasive cosmetic procedures are an innovative field with ongoing growth. In this scenario, hyaluronic acid stands out as a biopolymer that is currently the most utilized soft-tissue filler. Proper working knowledge of hyaluronic acid, limitations to use and anatomic principles can prevent complications. When occurring, the complications are categorized as early (less than 14 days), late (14 days to 1 year), and delayed (greater than 1 year). Late complications are usually related to foreign body granuloma reaction, as the case reported in this article.

**Objectives:** This study aims to report a case of a foreign body reaction to hyaluronic acid aesthetic filling, being followed up at the Hospital Otorrinos, endorsing the need for a high index of clinical suspicion, in addition to knowledge about the complications of the minimally invasive cosmetic procedures.

**Resumed report:** This article reports a case of a female patient, 36 years old, who underwent nasal plastic surgery in November 2020 with a lesion on the nasal dorsum compatible with a foreign body reaction after filling with hyaluronic acid, confirmed by biopsy. The patient responded favorably and is presently in follow-up with no complications.

**Conclusion:** The hyaluronic acid-based filler products have their place in minimally invasive procedures. Master anatomy and the characteristics of the product is the key to minimize the risks of complications. However, if complications arise, a proper surgical approach is critical for success.

**Keywords:** hyaluronic acid, granuloma reaction, rhinology, plastic surgery.

#### 10438 Planning the follow-up of tracheotomized children in a Tertiary Hospital in Brazil

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**Introduction:** Tracheotomized children need special care, as planning of direct laryngoscopies for decannulation and speech language support for deglutition and for language acquisition.

**Aims:** To evaluate the profile of the children submitted to tracheostomy and their follow-up in a tertiary hospital in Brazil.

**Methods:** Retrospective study of the patient's chart of all tracheostomized children up to 17 years in a University hospital in Brazil during 2014 to 2019, extracting age at surgery, comorbidities, speech language evaluation for deglutition and language acquisition, decannulation.

**Results:** We identified 115 patients, 100 children, 56 males, were included. Age at surgery varied from 13 days to 17 years old, mean age 4 years and 11 months. In 91 cases, tracheostomy was realized as an elective surgery, 22 children were pre-term, 22 had genetic syndrome or neurologic disease. Follow-up varied from 2 days to 7 years, mean period of 18 months. 45 children died due to their comorbidities. 41 children were evaluated by a speech language therapist, 13 related to language disorders, only 2 had a speech valve, 28 related to dysphagia. While 19 children were submitted to control laryngoscopy, 12 were successfully decannulated, period between tracheostomy and decannulation varied from 20 days up to 3 years and 4 months.

**Conclusion:** Tracheotomized children persist with the cannula for a long time, direct laryngoscopy for evaluation for decannulation is subplanned, specific evaluation for language acquisition is frequently delayed. A better holistic approach of tracheotomized children is necessary.

#### 10439 Vogt-Koyanagi-Harada syndrome: A rare case

Diogo da Silva Lima, Ana Carolina Lopes Belem, Renato Oliveira Martins, Brisa Dantas Rodrigues Nascimento, Abadia Evilin Fragoso do Nascimento  
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**Introduction:** Vogt-Koyanagi-Harada syndrome is an inflammatory disease and autoimmune etiology that affects important structures of important systems, such as visual and auditory. This pathology has its evolution in phases (prodromic, uveitic and recurrent), and the diagnosis is using criteria that assess ocular manifestations associated with neuroauditory or dermatological findings.

**Objectives:** To report a case of Vogt-Koyanagi-Harada syndrome.

**Resumed report:** Male, 60 years old, hypertensive and long-term smoker, reported in June/2020, after diagnosis of COVID-19 and increased blood pressure, a reduction in visual acuity, evolving in October/2020 to progressive bilateral amaurosis of 1 week of evolution (with improvement after the introduction of high-dose corticosteroid therapy by Ophthalmology service) associated with bilateral anacusis and bilateral cricket tinnitus, ear fullness and imbalance-type dizziness, triggered after stressful situations and long periods of fasting, a complaint that remained during the first otorhinolaryngological evaluations. Audiometry shows bilateral hearing loss in high frequencies (from 3kHz), without difficulties to understand speech. Actually, the patient is following up with Rheumatology service, using 15mg/week methotrexate for disease control, presenting improvement in previous visual and cochleovestibular complaints.

**Conclusion:** Although uncommon, it is necessary to know Vogt-Koyanagi-Harada Syndrome and its diagnostic criteria. With this action, the patient will be saved from visual and auditory sequelae caused by a mistaken or delayed diagnosis.

**Keywords:** vision loss, hearing loss, tinnitus.

#### 10440 Non-traumatic rhinogenic cerebrospinal fluid fistula: Case report

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**Introduction:** Cerebrospinal fluid (CSF) fistula is caused by a possible injury to the meninges (arachnoid, dura mater), bone and mucosa, generating extracranial CSF flow and possible nasal or otological origin. Regarding rhinogenic CSF fistulas, the most common etiology (96%) is traumatic.

**Objectives:** Report a case of a patient with non-traumatic rhinogenic CSF fistula.

**Resumed report:** Female, 48 years old, reported the onset of left rhinorrhea for one year, continuous and in moderate volume, intensified by lowering her head and reduced to the supine position. Associated with this complaint, she presents with imbalance-type dizziness and holocranial headache. He has no history of previous trauma, whether accidental or iatrogenic. Initially, she was admitted under observation by Neurosurgery service, which opted for conservative treatment (acetazolamide). In imaging exams (Computadorized Tomography and MRI), possible failures were observed in the posterosuperior region of the left sphenoid sinus and in the olfactory cleft. Currently, the patient is under otorhinolaryngological and neurosurgical follow-up, maintaining previously mentioned condition.

**Conclusion:** Despite the complaints, which represent an important inconvenience to the patient, it is prudent to carry out an adequate specialized follow-up (with Otorhinolaryngology and Neurosurgery services) to consider the advantages, disadvantages and possible complications of an attempt to resolve a rhinogenic, traumatic or not traumatic CSF fistula.

**Keywords:** cerebrospinal fluid fistula, rhinorrhea, trauma.

#### 10442 Role of vagus nerve in voice disorders CoVID-19-related: A systematic review

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**Introduction:** Patients with CoVID-19 present significant impairments of voice particularly after prolonged intubations. Although, mild and moderate cases also present a significant prevalence (> 40%) of self-evaluated dysphonia among non-hospitalized CoVID-19 patients. In this systematic review, main etiological hypotheses were explored to explain the vocal deficits possibly associated with the vagus nerve and CoVID-19.

**Objectives:** To identify possible pathophysiological causes of dysphonia or vocal alterations in patients with or after CoVID19 infection that may be associated with the vagus nerve.

**Data Synthesis:** A systematic review was performed using the following descriptors and their synonyms: vagus nerve, CoVID-19, voice disorder. The research was carried out in the MEDLINE/ PUBMED, LILACS, and SciELO databases. The descriptors were adapted when necessary. The inclusion criteria were: studies whose purposes were to explore the CoVID-19 clinical presentation or to set up any symptom pathophysiological causes explanation. A total of 15 studies were found, and a total of ten were selected after the inclusion and exclusion criteria were applied. Included articles were fully reviewed and their data summarized. All selected studies presented neurological symptoms associated with CoVID-19. Besides, four different hypotheses were found that can explain such clinical manifestations.

**Conclusion:** At least nine mechanisms that may explain the vagus-related vocal or speech disorders were found and discussed. The main hypothesis was direct damage, immunological, inflammatory, vasculopathy, and sequelae after stroke CoVID-19-related.

**Keywords:** voice disorders, vagus nerve, neurologic symptoms, CoVID-19.

#### 10443 Syphilis and congenital hearing loss: An integrative literature review

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**Introduction:** Hearing loss has always been considered a stigma of congenital syphilis infection, since the study by Hutchinson in the 19th century, who identified pathognomonic triad of interstitial keratitis, Hutchinson's incisor teeth and hearing loss, few studies to date explore this subject.

**Objectives:** Through an integrative review, this paper aims at explore how published research has been dealing with clinical characteristics, epidemiological data and strategies for early diagnosis of hearing loss due to congenital syphilis.

**Data Synthesis:** The choice for integrative review allowed for greater coverage in the selection of articles, however, from a total of 41 articles, 22 were selected, including review, case report, retrospective and prospective studies, however most articles did not respond directly to the objective of guiding question, but were included in the review because they brought data for discussion, which were divided in three categories: epidemiological studies (n=8), early diagnosis strategies (n=2) and studies of clinical characteristics (n=12).

**Conclusion:** In many countries with or without mandatory notification, the incidence of congenital syphilis is increasing. In Brazil, it is a concerning matter, the increase in prevalence points to the need for adequacy of health care. Diagnosis is mainly made by serological tests, however, new early strategies are being researched, such as proteome use. And, even though sensorineural hearing loss is a well-known complication of congenital syphilis, only a few cases are described in the literature, suggesting that the clinical manifestations are like those described in acquired cases.

#### 10445 Supraglottitis in adults - a case report

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*Irmãdade da Santa Casa de Misericórdia de São Paulo*

**Introduction:** Supraglottitis in adults is a severe disease and, if untreated, can lead to high morbidity and mortality. It is characterized as an inflammation of the supraglottic structures such as arytenoids, vestibular folds, aryepiglottic folds and epiglottis.

**Objective:** Discuss supraglottitis and its early management.

**Resumed report:** Male, 58 year old patient. I.S.T.N. was admitted to the emergency room of Santa Casa de Misericórdia de São Paulo with progressive odynophagia for liquids that had started the day before. He also reported mild and sudden dyspnea and a change in his vocal pattern. He denied fever, cough or other symptoms. On examination, he presented 96% oxygen saturation. During auscultation, he presented bilaterally audible vesicular murmurs, without adventitious noises. Nasofibrolaryngoscopy revealed an extensive and diffuse bulging in the supraglottic region, complicating the evaluation of the vocal folds and glottic cleft. After stabilizing the condition, a cervical tomography was performed, which indicated intense edema in the epiglottis with extension to the level of the vestibular folds and decreased glottic lumen. Absence of cell extravasation. It was carried out antibiotic therapy (ampicillin + sulbactam) and corticotherapy (dexamethasone 4mg 12/12h), nebulization with epinephrine and ventilatory support with nasal mask. The patient presented no need for invasive airway intervention and, during hospitalization, he was diagnosed with Diabetes Mellitus. He improved completely and was discharged after seven days of clinical treatment.

**Conclusion:** Among the causes of respiratory failure in adults, supraglottitis requires early management in order to avoid a series of serious complications. Early diagnosis favors therapeutic success.

#### 10447 Recurrent spontaneous nasal bleeding due to carotid cavernous fistula: Case report

Abadia Evilin Fragoso do Nascimento, Ana Carolina Lopes Belem, Renato Oliveira Martins, Diogo da Silva Lima, Brisa Dantas Rodrigues Nascimento

*Hospital Universitário Getúlio Vargas*

**Introduction:** Carotid cavernous fistulas are described as an abnormal communication between the cavernous segment of the carotid artery and the venous plexus of the cavernous sinus. They can be classified as direct, where is observed an abnormal communication between the internal carotid artery and the cavernous sinus, or indirect, whose connection is made between the meningeal branches of the internal and/or external carotid artery and the same sinus.

**Objective:** To report the case of a patient with recurrent spontaneous nosebleed due to carotid-cavernous fistula.

**Resumed report:** A 27-year-old man, victim of severe traumatic brain injury resulting from a motorcycle accident, evolved with grade IV left facial palsy on House-Brackmann scale, chemosis, proptosis and left eye bleed, in addition to bilateral spontaneous nosebleed worse on the left (in high volume and bright red), bilateral otorrhea and left pulsatile tinnitus, reducible to head rotation and ipsilateral cervical compression. On magnetic resonance imaging of the orbits, dilation and tortuosity of the cavernous plexus veins were visualized with early contrasting in the arterial phase, venous varices within the sphenoid sinus and left posterior ethmoid cell, dilatation of the left superior ophthalmic vein and engorgement of the retroclival venous plexus and inferior sinuses petrosus, characterizing carotid-cavernous fistula. Thus, the patient underwent endovascular fistula embolization, with resolution of this condition.

**Conclusion:** Carotid-cavernous fistula is rare. Despite this, the assistant physician should consider this hypothesis when faced with a victim of severe trauma with nosebleed.

**Keywords:** nosebleed, carotid-cavernous fistula, pulsatile tinnitus.

#### 10451 Case report: Nasal Schwannoma, a benign neural neoplasia

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**Introduction:** Schwannoma is a benign tumor originated from Schwann cells that usually arises from the VIII nerve, but in rare cases originate from sinonasal tract. Such cases usually presents with nasal blockage, bleeding, mucopurulent discharge, headache and/or hyposmia. Nasal endoscopy shows a well vascularized smooth mass, obstructing the nasal fossa. Imaging exams are helpful in surgical planning and determining disease extension. Diagnosis is determined by histopathologic and immunohistochemical findings. Surgical treatment is the main option with the goal being the complete removal of the tumor with minimal morbidity.

**Objectives:** Report a case of a nasal schwannoma, emphasizing the importance of its diagnosis, treatment and suspicion as a differential diagnosis of sinonasal masses.

**Resumed report:** R.D.A.B, 22-year-old male, presented to the otolaryngology department with right nasal fossa blockage, mucopurulent discharge and recurrent epistaxis. Nasal endoscopy showed a huge, well vascularized mass with smooth surface, arising from the superior portion of the right nasal fossa, extending inferiorly and obliterating the middle meatus. An excisional biopsy was performed under general anesthesia and by endoscopic endonasal approach. Complete removal of the tumor was achieved without complications. Histopathologic evaluation revealed benign neural neoplasm and immunohistochemistry demonstrated positive anti-S Protein and beta catenin and low proliferative index, suggesting Schwannoma. The patient had an 18-month follow-up with no signs of recurrence.

**Conclusion:** Schwannoma should be considered a possible diagnosis in sinonasal tumors. Surgery is the goldstandard treatment, with endoscopic endonasal approach being an excellent option, specially to small lesions, offering less morbimortality when compared to other approaches.

#### 10452 Tonsillitis as a manifestation of Epstein-Barr virus related post-transplant lymphoproliferative disease

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**Introduction:** The increase in organ transplantation has made the complications associated with the procedure more frequent. One of the most lethal complications associated with hematopoietic stem cell transplantation (HSCT) is the Epstein-Barr virus related post-transplant lymphoproliferative disease (EBV-PTLD). Caused by EBV reactivation

in patients with latent infection triggered by immunodepletion associated with transplantation, it affects between 5-17% of allogeneic bone marrow transplant recipients, with early presentation in the first year following the procedure. It may present with persistent fever, lymphadenopathy, pneumonia, hepatitis or tonsillitis. The diagnosis is established by biopsy showing lymphoproliferative changes and by high viral load in blood PCR. The mortality rate is 84%.

**Objectives:** Explore the differential diagnoses of tonsillitis in the context of HSCT based on a case of EBV-PTLD.

**Resumed report:** An 11-year-old boy, diagnosed with acute lymphoid leukemia, underwent HSCT in 2020. Admitted in 2021 with persistent fever for a month, palatine and lingual tonsils hypertrophy with adhered exudate and splenomegaly, evolving with upper airway obstruction and inspiratory stridor. EBV-PTLD and diphtheria were suspected. Thus, anti-diphtheria serum was administered, serologies, PCR were collected, biopsies and tracheostomy were performed. PCR revealed 73,408 IU/mL copies of EBV-DNA and immunopathological findings corroborated the hypothesis of EBV-PTLD. Rituximab was started, with no satisfactory response, evolving to death.

**Conclusion:** The otolaryngologist must be aware of the differential diagnoses of mononucleosis in the context of HSCT and perform biopsy to allow early treatment of the disease.

**Keywords:** hematopoietic stem cell transplantation, epstein-barr virus infections, tonsillitis.

#### 10453 Controversies in the treatment of septic sigmoid sinus thrombosis

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**Introduction:** Septic thrombosis of the sigmoid sinus is a rare condition that in general occurs as a result of middle ear disease. The clinical findings can range from mild symptoms to sepsis. Fever, facial paralysis, headache, earache, and neck pain may occur. The diagnosis can be made by associating the symptoms with imaging exams. Commonly, the disease presents a benign course, and the treatment combines antibiotics with mastoidectomy. The authors, however, diverge on the need for surgical drainage of the infectious focus and the use of anticoagulation therapy.

**Objective:** To report a case of sigmoid sinus septic thrombosis associated with chronic otitis media and discuss treatment controversies.

**Resumed report:** A 12-year-old female patient, with a severe left earache, ipsilateral retro auricular bulging, limitation of cervical movement, and headache. She had a previous diagnosis of chronic cholesteatomatous otitis media. A contrast-enhanced computed tomography of the mastoid region identified an area of hypodensity, in the left sigmoid sinus. Thus, the diagnosis of sigmoid sinus thrombosis secondary to chronic mastoiditis was made. Antibiotic therapy associated with the surgical approach of the mastoid was defined for the treatment.

**Conclusion:** Although septic sinus thrombosis of the sigmoid sinus is a severe condition, the prognosis has been favorable when we use clinical and surgical treatment. Other therapies such as anticoagulants and decanalization of the sigmoid sinus remain with uncertain effectiveness.

**Keywords:** otitis media, mastoiditis, sigmoid sinus thrombosis.

#### 10454 Esthesioneuroblastoma - A Case Report

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**Introduction:** Esthesioneuroblastoma is a rare malignant tumor originating from the olfactory epithelium. It has slow

growth and nonspecific symptoms, characterized by nasal obstruction, epistaxis and rhinorrhea. When there is invasion of adjacent structures, it manifests as anosmia, proptosis, epiphora, otitis media and headache. Physical examination usually reveals a tumor polypoid located superiorly in the nasal cavity of violaceous color. Diagnostic evaluation includes Computed Tomography and Magnetic Resonance Imaging. The conclusive diagnosis is based on anatomopathological examination using the immunohistochemical technique. The treatment consists of tumor resection associated with radiotherapy, which demonstrate better results in terms of survival.

**Objectives:** Report a rare diagnosis of tumor nasal and review literature.

**Resumed report:** Male, 48 years old, referred right nasal obstruction with hyposmia and facial pain one year ago, without other associated complaints. Anterior rhinoscopy showed a polypoid violaceous tumor with friable aspect in the right nasal cavity. There was no evidence of exophthalmos, cervical involvement or distant metastases, without focal deficits. Computed tomography was performed and showed an expansive mass in the right maxillary sinus. An endonasal resection of a tumor in the right nasal cavity was performed, which showed olfactory neuroblastoma. The patient is in outpatient follow-up, performing serial control tomography scans, with no need for radiotherapy until now.

**Conclusion:** Esthesioneuroblastoma is a rare malignum tumor of the nasal cavity and is an important differential diagnosis of nasal tumors, making its diagnosis essential for an early treatment and better patient survival.

**Keywords:** Esthesioneuroblastoma, epistaxis, nasal tumor, olfactory.

#### 10455 The importance of early diagnosis in the prognosis of Herpes Zoster Oticus

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**Introduction:** Herpes zoster oticus is the reactivation of the varicella-zoster virus in the geniculate ganglion of the facial nerve. The clinical presentation consists in pain in the ear pinna followed by vesicular eruption. When associated with facial paralysis, constitutes the Ramsay Hunt syndrome that usually coincides with the vesicles eruption. It is a rare condition, with clinical history and physical examination being the standard for diagnosis. Palsy is most probably due to the swelling of the facial nerve secondary to an inflammatory response against the virus, causing entrapment of the nerve in the facial canal, possibly with demyelization. Corticosteroids are used to reduce edema and decompress neurogenic structures, in combination with an antiviral drug against the causative microorganism, which supports the recommendation to initiate combined acyclovir-corticosteroid therapy early.

**Objectives:** To report a case of Herpes Zoster oticus early diagnosed and treated with antiviral and corticosteroid with favorable evolution.

**Resumed:** A.R.D.M., male, 66 years old, without comorbidities, with a 3 day history of earache in the left ear. Topical medications were used with no response. After 7 days, vesicular lesions appeared in external ear and left tympanic membrane and he didn't have facial paralysis or otoneurological symptoms. Oral corticosteroids and acyclovir were prescribed achieving complete remission in 15 days with no sequelae.

**Conclusion:** The use of corticosteroids associated to antivirals can contribute to a better prognosis in Herpes Zoster oticus. However, further studies are still needed to elucidate the contribution of this treatment in preventing complications, such as the Ramsay-Hunt Syndrome.

#### 10456 Oropharyngeal cancer in a teenager with a minor oral bleeding: A case report

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**Introduction:** Oropharyngeal cancer has a male predominant appearance in the 5-6th decade of life. However, epidemiologic studies have shown an increased incidence in the younger population, being HPV infection an important player driving this change. Poor prognosis of oropharyngeal cancer is associated with a late diagnosis given that the most pronounced symptoms (dysphagia, weight loss, hemorrhage) appear later in the natural course of disease.

**Objectives:** To highlight atypical presentations of squamous cell carcinoma of the palatine tonsil.

**Resumed report:** Y.C.A, 15 years old, previously healthy, presented with a spontaneous, self-limited, minor oral bleeding. Patient denies fever, odynophagia, dysphagia or neck mass. In the emergency room, asymmetric hypertrophy of the left palatine tonsil was observed, antibiotic therapy was prescribed and a peritonsillar abscess was diagnosed by clinicians. In our Hospital, after clinical examination, diagnostic workup was performed including complete blood counts, inflammatory tests, coagulogram, throat swab for culture, and tests for syphilis, HIV, cytomegalovirus and mononucleosis, all of them without significant abnormalities. Computed tomography showed a hypodense image, with irregular contours, showing a slightly heterogeneous enhancement by contrast, located close to the left tonsil. After tonsillectomy, the anatomopathological examination suggested poorly differentiated squamous cell carcinoma.

**Conclusion:** This case portrays how an unlikely diagnosis can be obtained, based on a clinical history and tests that go from the most to the least common, and from the least to the most invasive. Furthermore, this case exemplifies the recent changes in the epidemiological profile of oropharyngeal cancer.

**Keywords:** diagnosis; hemorrhage; oropharyngeal neoplasms.

#### 10457 Angiofibroma of the nasal septum in a 36-year-old man: Case report

Marcelo Hannemann Tomiyoshi, Alexandre José de Sousa Cunha, Lana Patrícia Souza Moutinho, Marcos Antonio Comerio Filho, Laura Gonçalves Mota, Cora Pichler de Oliveira, Isabela Trindade Martins  
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Juvenile angiofibroma (JA) is a rare, vascular, benign and locally aggressive lesion usually affecting peripubescent males, arising in the posterior nasal cavity. Their pathophysiology is unknown, histologically being an aberrant vascular structure.

The usual symptoms are bleeding, nasal obstruction and rhinorrhea. Imaging exams study tumor extent and narrow differential diagnosis. Biopsy shouldn't be performed due to the risk of bleeding.

Surgery is the preferred treatment for JA, with positive outcomes. Endoscopic resection being the preferred approach in JAs of the nasal cavity.

Histopathological examination is essential to confirm the diagnosis with immunohistochemistry aiding it.

To report an extremely rare presentation of JA, emphasizing its importance as a differential diagnosis of nasal tumors and its therapeutic management.

R.S.C, 36-year-old non-smoker, presented in the ENT department of the Hospital Naval Marcílio Dias, complaining of 2 weeks recurrent unilateral epistaxis and associated lesion of the left nasal cavity.

Nasal endoscopy revealed a small reddish mass in said cavity arising from the superior septal mucosa, extending next to the inferior turbinate, measuring 2 cm in diameter. CT scan showed localized lesion without adjacent tissue invasion.

The presumptive diagnosis was vascular tumor, and endoscopic surgical excision was performed under general anesthesia, without complications.



Histopathological study suggested angiofibroma and immunohistochemistry confirmed it.

Patient had an 18-month postoperative follow-up, fully recovering without recurrence.

JA are rare entities, and in rarer instances, unusual age and origin sites can be affected, such as the reported case. Therefore, JA should be considered a differential diagnosis in nasal tumors.

#### 10458 Laryngeal squamous cell carcinoma with 3D microscope excision: Case Report

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Septo / PUC - Rio

**Introduction:** Laryngeal cancers represent 2% of all cancers in Brazil. They are more prevalent in male patients between 50 and 70 years old, and its most common histological type is the squamous cell carcinoma. The prognosis depends on host factors, particularly smoking and alcohol ingestion, and tumor factors, particularly the TNM stage and histological grading of malignancy. The introduction of endoscopic microsurgery has revolutionized its treatment. Although the 3D microscope is more commonly used in neurosurgery, its use in laryngeal microsurgery has become a possibility.

**Objectives:** To report an invasive laryngeal squamous cell carcinoma in a 68-year-old man with 3D microscope excision.

**Resumed report:** J.L.C.S., male, 68 years old, white, veterinarian, smoker (47 pack-year), without comorbidities, sought medical care with a clinical condition of progressive dysphonia for 2 years, with no other symptoms. Videolaryngoscopy showed a vegetating lesion in the middle and posterior third of the right vocal fold. The surgery was performed with a Confiante video device and a Zeiss Kinevo 900 3D microscope, showing a greater sense of depth and a broader view of the lesion, facilitating its removal. Biopsy revealed invasive well-differentiated squamous cell carcinoma, and patient was referred to a head and neck surgery oncology service.

**Conclusion:** The use of the 3D microscope is a possible instrument to be used over the next few years, which may reduce the incidence of intraoperative complications and perhaps improve the patient's prognosis by facilitating the visualization of lesions in high definition and, consequently, their removal with caution.

#### 10459 Nasal cavernous hemangioma - case report

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Irmandade da Santa Casa de Misericórdia de São Paulo

**Introduction:** Hemangiomas are common soft tissue tumors, being frequent benign neoplasms of the head and neck region, rarely affecting the nasosinusal tract. Clinically, the presentation depends on the size and location, but epistaxis is the early and significant symptom because it is hypervascularized.

**Objective:** Discuss nasal hemangiomas and their clinical - surgical management.

**Resumed report:** The patient L.G.A., 31 years old, male, was admitted to the Emergency Room due to major epistaxis which was refractory to initial tamponade measures. He reported two previous self-limited episodes of moderate volume and since March/2020 evolved a fixed nasal obstruction in the left nasal fossa. He denied the use of medications, drugs or nasal trauma. The previous rhinoscopy revealed a polypoid lesion occupying the entire middle meatus and partially the common meatus. The flexible nasofibroscope revealed a lesion in the middle meatus with reddish color, friable, without secretions and with an active bleeding point, which was tamponaded with a glove finger filled with gauze. The CT of the facial sinuses revealed a mass with heterogeneous soft tissue attenuation, occupying the left nasal fossa and maxillary sinus up to an erosion of the medial wall of the maxillary sinus and sphenoid sinus. A combined resection (Caldwell-Luc + Nasal Endoscopic) was chosen and the

sample was sent for anatomopathological analysis, which revealed cavernous hemangioma with extensive necrosis.

**Conclusion:** Although rare, hemangiomas should be considered in the differentiated diagnosis of nasal tumors, especially when the clinical history is marked by the presence of an epistaxis.

#### 10462 Nasosinusal lymphoma of T cells: A case report

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Instituto de Medicina Integral Professor Fernando Figueira - IMIP

**Introduction:** Lymphomas constitute 2.5% of malignant tumors of the head and neck, representing the second most common neoplasm in this segment. In this region, the most affected sites are nasopharynx, tonsils and tongue base. Primary nasal lymphoma is a rare extranodal tumor and represents approximately 0.5% of all extranodal lymphomas in this location. Primary nasal lymphoma derives from the T lineage in around 75% of cases. T-cell lymphomas are highly associated with Epstein Bar virus and more frequent in eastern countries. Clinical manifestations include facial pain, edema, epistaxis, purulent discharge, nasal obstruction and septal perforation, sometimes associated with fever and weight loss. Although this lymphoma is sensitive to radiotherapy, it is more often resistant to chemotherapy agents than other lymphomas.

**Reported Case:** 51 years old, female, with nasal obstruction on the right, self-limited epistaxis and frontal headache for 3 months associated with weight loss. Visualized in nasofibroscope the cavum filled by tumor, not being possible to progress the optic through the right nasal cavity. Computed tomography evidenced expansive formation with soft tissue density, compromising the nasal pharynx, with bilateral involvement of the tubal torus, obstructing the rhinopharynx. An incisional biopsy was performed showing T-cell lymphoma, referred for follow-up and treatment with hematology.

**Objective:** Report a case of nasosinusal T-cell lymphoma and review the literature about the subject.

**Conclusion:** Although rare, the diagnosis of lymphoma should be considered in cases of nasosinusal complaints, as early diagnosis improves survival as it prevents metastases, growth and local destruction.

**Keywords:** T-cell lymphomas, nasopharynx, lymphomas

#### 10463 Large B-cell Non-Hodgkin's lymphoma in palatine tonsils and selective IgM deficiency: A case report

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Hospital de Base do Distrito Federal

**Introduction:** Lymphoma is one of the most frequent head and neck tumors. It is subdivided into Hodgkin lymphoma and Non-Hodgkin Lymphoma, the latter being the most frequent. Extranodal involvement, although uncommon, occurs more frequently in patients with Non-Hodgkin Lymphoma, with the Waldeyer lymphatic ring, especially the palatine tonsils, as the main structure involved. In this cases, Burkitt's Lymphoma and Large B-cell Lymphoma are the most frequent subtypes.

**Objectives:** To report a case of bilateral Non-Hodgkin Lymphoma of the palatine tonsils in a patient with selective IgM deficiency.

**Resumed report:** An 18-year-old male patient with selective IgM deficiency confirmed in childhood, refer odynophagia refractory to antibiotic therapy and dyspnea. Orscopy revealed bilateral hypertrophy of grade IV palatine tonsils according to Brodsky's classification, and presence of bilateral anterior cervical lymphadenitis. Computed tomography of the neck with contrasts shows a marked increase in the palatine, lingual and pharyngeal tonsils with a reduction in the airway lumen. Presence of lymph node enlargement

at levels IB, IIA, IIB and III bilateral, left IV and right VB. He was submitted to tracheostomy, incisional biopsy of the palatine tonsil and excisional biopsy cervical lymph node. Diagnosed with large B-cell non-Hodgkin's lymphoma and referred for chemotherapy.

**Conclusion:** Although the main suggestive sign and most frequently found in cases of lymphoma of the palatine tonsils is unilateral tonsillar enlargement, it is worth noting that the disease can also affect these structures bilaterally, especially in patients with immune disorders, who already have an increased risk for neoplasm.

**Keywords:** lymphoma, palatine tonsil, immune deficiency, neoplasm.

**10472 Ramsey-Hunt syndrome and multiple nerve involvement**  
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**Introduction:** Ramsey Hunt syndrome is a rare disorder caused by the reactivation of the herpes zoster virus in the geniculate ganglion. Symptoms like earache, ear vesicles and dizziness happen before the paralysis of the facial nerve. Most of the time it is limited to the impairment of the facial or vestibulocochlear nerves, thus not frequently in other cranial pairs.

**Objectives:** Discuss the involvement of other cranial nerves in the syndrome as well as its treatment.

**Resumed report:** M.I.F, 39-year old, had complained for 10 days, of odinophagy, earache, hoarseness and dizziness. She took antibiotics without getting better. Meanwhile, she noticed paralysis of her right face. In addition, her right ear had painful vesicular blisters in ear pinna. Tympanic Membrane had no changes. House Brackmann IV. Schimmer test was normal. Oroscopy showed curtain sign and laryngoscopy with paralysis of the right vocal fold. She was given acyclovir 800mg/day, 7 days, Predsim 60mg/day, 15 days and eye protection. Audiometry with no signs of ipsi or contractual reflexes on the right side. Cranial magnetic resonance was normal. After 30 days without remission, decompressing surgery of the facial nerve in tympanic and mastoid areas was done. Simultaneously, after 1 month of follow up an improvement of the phonological symptoms was observed besides the HB III.

**Conclusion:** Although it is not common, the HZ virus can also affect other nerves. Thus, a rigorous examination of other nerves should be carried out. The support of medication and surgery proposed was in agreement with the expertise of the service.

**Keywords:** syndrome, cranial nerves, paralysis.

**10473 Labyrinthitis ossificans diagnosed after peripheral facial paralysis: Case report**

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**Introduction:** Labyrinthitis ossificans is defined as an ossification of the membranous labyrinth. It is usually secondary to suppurative labyrinthitis. It causes irreversible damage to the inner ear, leading to profound sensorineural hearing loss. The three main forms of dissemination of the reported infection: tympanic, meningogenic and hematogenous. Uncommon causes include tumors, advanced otosclerosis and temporal bone fracture.

**Objectives:** To report a case of labyrinthitis ossificans and peripheral facial paralysis.

**Resumed report:** A 32-year-old female patient reported right ear otalgia associated with peripheral facial palsy. Referred right hearing loss since childhood, never investigated. Physical examination revealed House and Brackmann grade IV right peripheral facial palsy. Tonal audiometry with profound sensorineural hearing loss on the right and normal hearing thresholds on the left. Temporal bone magnetic resonance with contrasts revealed loss of fluid signal in the

membranous labyrinth and a small discrete focus of enhancement in the lower part of the internal auditory meatus on the right and no labyrinthine segment of the facial nerve on this side. Temporal bone computed tomography showing complete ossification of the cochlea, including the basal turn and the entire posterior labyrinth. Patient underwent treatment with corticotherapy, physiotherapy and eye care with improvement of the peripheral facial palsy.

**Conclusion:** During the follow-up of peripheral facial paralysis, patient in the case was diagnosed with labyrinthitis ossificans and profound hypoacusis. Follow-up is important for adequate propaedeutics as for treatment guidance and for prognostication.

**Keywords:** Labyrinthitis ossificans, Sensorineural Hearing Loss, Facial Paralysis.

**10475 Supraglottic stenosis due to laryngeal tuberculosis: A case report**

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**Introduction:** Tuberculosis is an infectious disease caused by *Mycobacterium tuberculosis*. Typically, this disease mainly affects the lung, but it can also involve other sites, such as the larynx.

**Objectives:** Emphasize the relevance of differential diagnosis of laryngeal tuberculosis in unusual airway infections.

**Resumed report:** A 27-year-old male patient sought care at the reference otolaryngology clinic reporting dysphonia associated with dyspnea, odynophagia and weight loss for 2 years. Denied previous pathologies or smoking. Reports a laryngeal biopsy result suggestive of paracoccidioidomycosis and subsequent treatment with itraconazole. After 11 months of treatment, the patient evolved with respiratory failure and hospitalization where diagnosis was confirmed by examination for acid-fast bacilli and culture. The patient was placed on antituberculous therapy (Isoniazid, Rifampin, Pyrazinamide, and Ethambutol) for 6 months, with partial improvement of the symptoms. A videolaryngoscopic examination performed in an otolaryngology service showed supraglottic stenosis, with synechia of the interarytenoid region, significantly reducing the glottic. The patient was then referred for surgical approach in order to expand the air passage through the laryngeal lumen.

**Conclusion:** Laryngeal tuberculosis is being diagnosed in increasing numbers. Otolaryngologists should remain on high alert when dealing with unusual airway infections.

**Keywords:** laryngostenosis; tuberculosis, laryngeal; dysphonia; deglutition disorders; case reports.

**10476 Salivary cyst in child: A case report**

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**Introduction:** Salivary cyst is the most common lesion of the sublingual gland and is characterized as a retention cyst that accumulates thick and viscous secretion after injury or obstruction of the duct. Treatment is surgical through enucleation or marsupialization.

**Objectives:** Report a case of salivary cyst and the procedure performed.

**Resumed report:** AAS, female, 3 months old, under outpatient follow-up due to a cyst lesion on the floor of the mouth, measuring about 2x2 centimeters, but without prejudice to feeding and breathing, opted for outpatient follow-up. However, 1 month after the initial evaluation, the mother reports an increase in the lesion, in addition to difficulty in breastfeeding, requiring a nasogastric tube in her hometown. Chosen for hospitalization for imaging examination and definition of surgical approach. A video-guided nasotracheal intubation was chosen, and the technique chosen for the surgery was the cyst enucleation. In the immediate postoperative period it was already possible to visualize tongue edema. Due to the risks of early extubation, post-operatively

in the ICU was chosen. Patient intubated for 4 days, after evaluation of the oral cavity and after 72 critical hours of local edema, opted for extubation, with good clinical evolution. The patient will continue under outpatient follow-up after discharge from the ICU.

**Conclusion:** Salivary cyst is the most common lesion of the sublingual gland. Its treatment is usually surgical and a better result is expected with cyst enucleation.

**Keywords:** salivary cyst; enucleation; marsupialization.

#### 10477 Assessment of olfactory dysfunction in SARS CoV-2

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**Introduction:** Smell represents an important sense that allows humans to discriminate a large number of unspecified molecules. It is known that the impairment of the olfactory function can affect the quality of life of patients. In the current context of the SARS-CoV-2 pandemic, changes in smell in patients positive for COVID-19 have become more intense and of early onset.

**Aims:** This case report aims to assess smell, using a Connecticut test, in a positive patient for SARS-CoV-2, during a covid-19 infection and after recovery.

**Resumed report:** M.X.M., 77 years old, with SARS-Cov-2 infection, symptoms started on 07/21/2021, positive RT-PCR on 07/29/21. Connecticut test was carried out on 07/30/21 with results 4 in the right nasal cavity, and 5 in the left nasal cavity, compatible with moderate and mild hyposmia, respectively. A new test was performed on 11/17/2021 with result 3 in the right nasal cavity and 3.5 in the left nasal cavity, compatible with severe bilateral hyposmia.

**Conclusion:** The case reported and the publications surveyed make it possible to conclude that an olfactory dysfunction represents a common clinical finding in patients with COVID-19, in addition to bringing to light the discussion of therapy in a complex situation, which is the alteration of smell due to covid-19 infection.

#### 10478 Silent sinus syndrome: Diagnosis and treatment

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**Introduction:** Silent sinus syndrome (SSS) is a rare and acquired condition characterized by chronic maxillary sinus atelectasis and gradual collapse of the orbital floor. This pathology usually manifests with unilateral spontaneous enophthalmos and/or hypoglobus, in absence of history of trauma, previous surgery and symptoms of chronic sinusitis. Diagnosis is made based on clinical findings and it's confirmed by computed tomography. The treatment involves functional endoscopic sinus surgery (FESS) and plastic reconstruction of the orbital floor with homologous or synthetic material.

**Objectives:** Describe a case of SSS, its diagnosis and treatment.

**Resumed report:** MCP, 37 years old, male, borned and coming from Bertioga-SP, presenting complaint of sinking of the left eye for 6 months. He reported no history of surgery, facial trauma and sinus symptoms. At the initial evaluation he presented enophthalmos of the left eye. Nasoendoscopic examination revealed retraction of the lateral wall of the left nasal cavity. CT identified heterogeneous sealing and volumetric reduction of the left maxillary sinus, obliteration of the osteomeatal complex, infra-leveling of the orbital floor and retraction of the eyeball to the interior of the orbital cavity, bone failure in posterior wall. The patient was submitted to a maxillary antrostomy by endonasal access and placement of titanium plate on the floor of left orbit by transconjunctival access. He presented favorable evolution in 12 months of follow-up, without recurrence of the condition.

**Conclusion:** SSS deserves attention because the role of otorhinolaryngologist in its management is extremely important, since the nasosinusal approach is one of the main points of treatment.

#### 10481 Case report: Deep neck infection caused by an upper 3<sup>rd</sup> molar infection with involvement of the parapharyngeal space

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**Introduction:** Deep neck infection is a serious and potentially life threatening infection. Each deep neck space is most commonly affected due to certain infectious sites.

**Objective:** The objective of the case report is to demonstrate an unusual path of dissemination of infection in the parapharyngeal space.

**Resumed report:** K.M.D.A., 34 years old, female, without comorbidities, presented with cervical pain in right side 7 days before admission, associated with odynophagia, dysphagia, trismus, cervical bulging inferiorly to the angle of the ipsilateral mandible, fever, and prostration. She reports that all conditions started 7 days after the extraction of upper 3rd molars bilaterally. She presented restricted cervical mobility to the lateralization of the neck to the right, with bulging cervical in levels IIA, IIB and III on the right; trismus 3+/4+, making it impossible to see the oroscopy completely, but bulging of the right peritonsillar region was seen. Face and neck CT performed at entrance demonstrated transspatial heterogeneous collection, involving the right masticatory, mucosopharyngeal, parapharyngeal and parotid spaces, compatible with abscess. The therapeutic chosen consisted of bilateral tonsillectomy, intraoral abscess drainage, and antibiotic therapy with Ceftriaxone and Clindamycin.

**Conclusion:** Although rarely found, dental manipulation of upper molars can result in infectious involving the parapharyngeal cervical space. The case described shows an unusual path of dissemination of the infection in the parapharyngeal space. It is extremely important to make a diagnostic investigation with CT scan of the face and neck to better elucidate the extent and location of deep neck infections.

#### 10482 Frontal sinus mucocele with invasion of orbital cavity

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**Introduction:** Mucoceles are benign cystic lesions with mucoid content. It is considered an expansive lesion that causes erosion and the displacement of surrounding structures. This destructive feature is generated by its content, composed of prostaglandins, lymphocytes, and macrophages. Its growth is generally slow, progressive, and the frontal sinus is the most involved, followed by the ethmoid sinus. Symptoms include headache, feeling of pressure in the face, nasal obstruction, and ophthalmologic changes. Diagnosis of mucoceles is supported by a clinical investigation based on CT-scan used to determine the extent of the lesion. In general, treatment is surgical, using the endoscopic marsupialization method.

**Objectives:** This case report aims to demonstrate the importance of early diagnosis of mucoceles, avoiding complications by the growth of the lesions.

**Resumed report:** A 56-year-old, female, with chief complaints of swelling around the left upper eyelid region for the last 3 years. She also complained of occasional headaches. There was neither history of ophthalmologic nor nasal symptoms. On physical examination, there was swelling present in the frontal sinus region. The CT exam showed a large expansile cystic lesion, with hypodense contents, located in the left frontal sinus and the wall of mucocele was abutting the orbital cavity. Frontal mucoceles was diagnosed and nasal endoscopic surgery was performed.

**Conclusion:** Paranasal sinus mucoceles, although not rare, can present dangerous complications, including blindness. Delay in diagnosis often allows lesions to reach large dimensions, increasing the risk of complications.

**Keywords:** frontal mucocele, paranasal sinuses, endoscopic marsupialization, orbital complications.

**10483 Nasolabial cyst: A case report**

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*Hospital Cema*

**Introduction:** The nasolabial cyst is a rare disease, usually unilateral, benign, of embryonic origin, located in soft parts of the nasolabial folds and nasal wings. The diagnosis is basically clinical, taking into consideration the cyst topography, that is usually asymptomatic.

**Objectives:** To report a case of nasolabial cyst diagnosed at the Otorhinolaryngology Department of the Hospital Cema in São Paulo.

**Resumed report:** DASO, 49 years old, female, reports a little mass bulging on the left nasal vestibule region from ten years, rarely associated with episodes of inflammation, staying for a long period asymptomatic. Physical examination revealed mild swelling in her left nasal wing and effacement of the ipsilateral nasolabial groove, floating with injury and cystic consistency, measuring approximately 2 cm in diameter. Computed tomography imaging demonstrated circumscribed lesion, located in the left naso-alveolar occupying space in the ipsilateral nasal. The treatment suggested for the patient was a complete surgical excision of the cyst. The material sent for histological analysis confirmed the diagnosis of nasolabial cyst.

**Conclusion:** Although uncommon, nasolabial cyst is easily diagnosed, the diagnosis is clinical and the image exams are helpful for determining lesion and size. In most times surgical therapy has a good response and it is resolutive.

**10484 Sinonasal melanoma: A case report**

Gabriela Araújo Ferreira Pires, Marcell de Melo Naves, Fernanda Rocha Dorneles, Ana Cecília Oliveira Veloso, Leonardo Assis Silvestrini  
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**Introduction:** Mucosal Melanoma is a rare and aggressive pathology which affects head and neck, representing less than 10% of all melanoma. Prevails in older female patients around 5° to 8° decade of life, occurring in nasal or oral cavity and paranasal sinuses. Prognosis is generally poor, with reported five-year survival rates of 12-30% for primary lesions. In the presented case, initial hypothesis was inverted papilloma or squamous cell carcinoma due to clinical history and greater prevalence.

**Objectives:** This study describes a Sinonasal Melanoma case and compares it with the literature.

**Resumed report:** 64-year-old female patient, history of unilateral obstruction, epistaxis and loss of smell in right nasal cavity during the past year. Patient underwent endonasal surgery for polypoid lesions' removal, without anathomopathological evaluation. Five months after treatment failure due to local recurrence, a tomography was performed identifying extensive obliteration of right nasal cavity by material with density similar to soft tissues, without bone erosion, suggesting nasosinus polypoidosis. During videonasofibroscope, we detected voluminous lobulated mass, pearlescent with bloody secretion preventing visualization of the middle meatus and rhinopharynx. We performed endonasal procedure to remove the entire lesion along with its insertion points in the inferior turbinate, nasal septum extending to the rhinopharynx. Pathological examination concluded it was a mucosal melanoma.

**Conclusion:** Literature shows that the presented case is very rare. Endoscopic resections in patients without lymph node involvement or distant metastases result in less morbidity. When associated with radiation therapy, can provide improvement in the patient's life quality.

**Keywords:** melanoma, sinonasal, epistaxis.

**10489 Cylindrical cell papilloma in nasal fossa a rare schneiderian papilloma: Case report and literature review**

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**Introduction:** Oncocytic Papilloma or formerly known Cylindrical Cell Papilloma is the rarest type of Schneiderian Papilloma.

The clinical presentation may be similar to other types. However, the particular clinical presentations and risk factors of this disease is not well defined. This report introduced and reviewed the main issues.

**Objectives:** To describe an uncommon mucosal tumor, the rarest variety of Schneiderian Papilloma.

**Resumed report:** A 63-year-old male patient was referred to otolaryngology service due to one year of left nasal obstruction and aural fullness. Nasofibroscope showed polypoid degeneration in the left middle meatus, extending to the nasal cavity and invading 75% of the cavum. Computadorized tomography exhibited patterns that matched soft tissue material in the nasal cavity and left maxillary sinus with enlargement of the meatal ostium complex. Patient underwent lesion excision and biopsy to confirm the diagnosis.

**Conclusion:** Schneiderian papillomas are Schneiderian epithelium lesions acknowledged as benign tumors. It is a benign tumor with a stratified lining of bright pink granular columnar cells that may arise from the lateral sinus wall or paranasal sinuses. They are divided into three types: oncocytic, fungiform, inverted papilloma. Its incidence is about 7 cases per 1.000.000 people. Oncocytic papillomas represent 3% of cases. The clinical presentation, in this case, was the same as other reported cases. Although, there were image features alike to inverted papilloma.

**Keywords:** Schneiderian papilloma, cylindrical cell papilloma, sinonasal papilloma.

**10490 Primary hyperparathyroidism in a intrathoracic ectopic parathyroid gland: A case report**

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**Objectives:** Report a case primary hyperparathyroidism in a intrathoracic ectopic parathyroid gland.

**Resumed report:** A twelve-years old male patient was admitted with history of recurrent urinary tract infection and nephrolithiasis; Noted in laboratory tests important hypercalcemia and high levels of PTH, performed then a neck and chest computed tomography scan and a scintigraphy, being suspected that the ectopic gland were in the transition of the low neck and superior mediastinum; In april 2021, the patient was submitted to cervical approach, removing the gland, followed by insufficient decrease of serum calcium and PTH. After a new evaluation, Primary Hyperparathyroidism was found another ectopic gland in the superior mediastinum, other surgery was performed, this time a sternotomy probe guided surgery; this time finding successfully the hyperfunctioning gland in the superior mediastinum, with satisfactory decrease of the PTH and calcium levels.

**Conclusion:** Primary Hyperparathyroidism in a ectopic gland should be considered as a differential diagnosis in patients with hypercalcemia and normal parathyroid gland in the neck or resection of a gland without sufficient decrease in PTH levels. Nuclear scan and the probe guided surgery is a safe and effective way to find and intrathoracic ectopic parathyroid gland.

**10492 Hemorrhagic complication associated with blood dyscrasia**

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**Introduction:** Cervical hematoma is a complication associated with coagulation disorders. There are similar reports related to the use of coagulants, however, association with malignant neoplasms is uncommon.

**Objective:** Presentation of a clinical case of extensive cervical hematoma and floor of the oral cavity that evolved to severe respiratory failure in a cancer patient.

**Case presentation:** Patient R.A.S, 69 years old, with adenocarcinoma of the pancreas head with mesenteric invasion, admitted for investigation of melena. He had had episodes of melena in the past few weeks. Upper digestive endoscopy



performed as the beginning of the investigation. Evolved with ecchymosis in the cervical and thoracic region. She reported a sensation of progressive edema in the anterior cervical and submandibular regions and the floor of the oral cavity. After laboratory evaluation, coagulopathy was diagnosed. Identified increase in activated partial thromboplastin time (APTT: 80). No other laboratory changes. Patient denied other comorbidities and use of anticoagulants. With the evolution of the edema, he reported dysphagia, odynophagia and dyspnea. Physical examination: bulging in the cervical region, hematoma on the floor of the oral cavity, ecchymosis in the palatoglossal and bilateral palatopharyngeal arch, dyspnea, stridor and expiratory wheezing. We opted for tracheostomy to prevent respiratory failure. The next day, she presented a decrease in her general condition and severe respiratory distress, being transferred to the intensive care unit.

**Conclusion:** Case of coagulation disorder resulting from a malignant neoplasm with progressive cervical hematoma with an unfavorable outcome.

**Keywords:** coagulopathy; hematoma; neoplasm.

#### 10495 Resection of ossifying fibroma by endonasal and external facial access

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**Introduction:** Ossifying fibroma is a benign tumor, composed of fibrous and bone tissue, most cases occur in the mandible, with an unusual nasal presentation.

**Objectives:** To describe a rare case of ethmoidal ossifying fibroma with ocular dystopia as the main manifestation.

**Resumed report:** A 17-year-old male, presenting left ocular proptosis and dystopia for two years, with preserved ocular motricity and visual acuity. A tomography of the facial sinuses showed a wide frontoethmoidal mucocoele on the left, associated with a bone formation that obstructed the ipsilateral frontal recess, initially considered to be an osteoma. He underwent an endonasal surgical approach for drainage of the mucocoele and resection of the lesion, which presented a dysplastic aspect in the intraoperative period. The patient evolved with improvement and the pathological exam indicated Juvenile Psammatoid Fibroma Ossificans. One year later, there was a recurrence of symptoms and an expansion of the lesional area to the posterior ethmoid region and roof of the orbit was observed on imaging. He underwent a new surgical procedure via endonasal route associated with external left supraorbital route to allow access to the orbital roof and its decompression through wide resection of the tumor.

**Conclusions:** Ossifying fibroma, in general, does not require surgical treatment, which is reserved for symptomatic cases or in the presence of esthetic complaints. The endonasal endoscopic approach is preferred due to the lower morbidity and surgical time. However, external facial access may be necessary as a complementary surgical technique.

**Keywords:** ossifying fibroma, mucocoele, external access.

#### 10497 Biphasic synovial sarcoma in supraglottis: A case report

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Hospital Universitário Bettina Ferro de Souza

**Introduction:** Synovial sarcoma is a malignant soft tissue tumor of uncertain histogenesis classified into monophasic and biphasic subtypes, being the latter characterized by glandular epithelial differentiation on a background of spindle tumor cells. Is usually presented in extremities of young adults, in rare cases can be found in parapharyngeal region.

**Objectives:** To report a case of biphasic synovial sarcoma in supraglottis.

**Resumed report:** 19-year-old male patient was referred to the otorhinolaryngology department with a 4-year-old history of dysphagia, dyspnea, cough, and weight loss, being submitted to emergency tracheostomy one year before. A previous neck computerized tomography (CT) showed a solid expansive formation, with soft tissue density and exophytic growth, extending from hypopharynx to supraglottis, measuring 5.5 x 4.2 cm. On videolaryngoscopy a large exophytic, erythroleucoplakic lesion was observed, occluding view of supraglottis with salivary accumulation. A previous larynx microsurgery with lesion biopsy was performed and the histopathologic study evidenced two distinct morphological aspects within the lesion, a spindle-shaped sarcomatous and a tubular one of possible epithelial lineage, although no conclusive diagnosis was reached. To elucidate the case, patient was submitted to new larynx microsurgery and biopsy with further histopathological and immunohistochemical studies, the latter revealed a biphasic malignant neoplasm consisting of atypical spindle cells, uniform among themselves, arranged in short multidirectional bundles compatible with biphasic synovial sarcoma diagnosis. In view of these findings the patient was referred to oncology and head-and-neck surgery departments, also CT staging exams were requested.

**Conclusion:** The unusual site of presentation makes this case worth reporting.

#### 10499 Topodiagnosis analysis of Ramsay Hunt syndrome - a case report

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**Introduction:** Ramsay Hunt Syndrome is an otological complication Varicella-zoster virus related, classically described as a triad of ipsilateral peripheral facial paralysis, otalgia, and herpetic vesicles near the ear and auditory canal. The facial nerve has branches along its path before get forth through the stylomastoid foramen, it is possible to infer the lesion site by evaluating the function associated with these branches.

**Objective:** To discuss the importance of topodiagnosis in peripheral facial palsies.

**Case report:** A 50-year-old male patient presented with otalgia for five days which evolved over 24 hours with hearing loss and tinnitus. On physical examination, peripheral facial paralysis was detected. Vesicles in the ear and hard palate were present on the right. Audiometry showed a moderately severe sensorineural loss in the right ear associated with the absence of the same side stapedial reflexes.

**Conclusion:** Ramsay Hunt Syndrome represents the Varicella-zoster reactivation in the geniculate ganglion and along the sensory nerves that innervate the ear but also can reach other nerves like cochleovestibular and in some cases can lead to paralysis of other cranial nerves. The Schirmer test, acoustic immittance testing, chemical gustometry, electrogustometry, and vestibular evoked myogenic potential are part of the topodiagnostics resources. In addition, nuclear magnetic resonance can identify with details and high accuracy the changes resulting from the syndrome. Therefore, a rigorous physical examination supported by complementary exams are essentials to guide the topodiagnosis and treatment of these patients.

**Keywords:** Ramsay Hunt syndrome, peripheral facial paralysis, hearing loss.

#### 10503 Carotid paraganglioma in the differential diagnosis of pulsatile tinnitus

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**Introduction:** Rhythmic tinnitus is an uncommon symptom, accounting for less than 4% of all tinnitus cases. Carotid paragangliomas are rare highly vascularized benign tumors originated from the neural

crest, usually asymptomatic. However, they may present with a range of nonspecific symptoms, including ipsilateral pulsatile tinnitus.

**Objectives:** To describe a case of pulsatile tinnitus leading to the diagnosis of carotid paraganglioma.

**Resumed report:** A 45-years-old female presented with a pulse-synchronous tinnitus on the right ear for two years, with no concurrent symptoms. One year before, she had been diagnosed with colon adenocarcinoma. Physical examination had no particularities. Audiometry showed mild sensorineural hearing loss on the left and mild mixed loss on the right ear. Magnetic resonance imaging was normal. However, computed tomography angiography revealed an avidly enhancing soft-tissue oval mass at the right carotid bifurcation measuring 4x3x6mm, suggestive of paraganglioma. Due to the small size of the lesion, counseling and follow-up was the initial treatment.

**Conclusion:** Pulsatile tinnitus is an uncommon complaint that might lead to significant morbidity, and requires identification of the underlying cause to proper treatment. Correct diagnosis depends on correlation of the clinical examination, audiometric evaluation and imaging findings. Head and neck paragangliomas are a rare cause of pulsatile tinnitus, corresponding for 0.6% of all head and neck tumors. They are usually unilateral slow-growing lesions located in the carotid bifurcation. Treatment varies, and includes follow-up, embolization, radiotherapy and surgical resection, depending on the patient's profile and clinical presentation and evolution.

**Keywords:** glomus tumor, paraganglioma, pulsatile tinnitus.

#### 10504 Diagnosis of renal carcinoma through nasosinusal metastasis - case report and literature review

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**Introduction:** Nasosinusal Metastasis from renal cell carcinoma (RCC) presenting as epistaxis is rare. Its presentation reveals advanced disease with poor prognosis. It is important to treat nosebleeds and investigate its etiology.

**Objectives:** To describe a rare case in which the diagnosis of CCR was made through a nasal metastatic lesion during the treatment of epistaxis.

**Report resumed:** Male patient, 47 years old, with a history of pain in the left flank and weight loss. He has been presenting recurrent epistaxis and headache for 6 months. In the last month, he presented indistinct, bulging in the right orbit with visual impairment. Nasofibroscope: Friable, reddish lesion between the middle concha and septum, bilateral. Skull Magnetic Resonance: Lesions involving maxillary sinus, sphenoid, ethmoidal bone, frontal, cribriform plate, intracranial invasion and obliteration of the left nasal cavity. Endonasal biopsy was performed, revealing Clear Cell RCC.

**Conclusion:** RCC clear cell nasosinusal metastasis presenting with epistaxis is rare, difficult to diagnose, which may mean compromised survival. There is no well evaluated frequency of cases in the literature, but reports and small series reveal approximately 1.3% metastasis cases of RCC. Therefore, the study shows the relevance of the case and the importance, not only of the treatment of epistaxis for hemodynamic control, but also the identification of its etiology and thus include RCC metastasis in the differential diagnosis of epistaxis. In addition, the medical team must be prepared to intervene early and improve results.

**Keywords:** nasal metastasis, epistaxis, renal carcinoma.

#### 10505 Vertigo as a late and persistent sequelae of blood-brain trauma

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**Introduction:** Temporal bone fracture results from high-energy trauma and can damage the ossicular chain, facial nerve, vascular structures, inner and middle ear. After the initial approach to

trauma, it is essential to perform computed tomography scans and continued otorhinolaryngological follow-up.

**Objectives:** To describe the clinical picture, diagnosis and treatment of otorhinolaryngological repercussions in a patient after a traumatic brain injury.

**Resumed report:** Male patient, 64 years old, with a history of a 2-meter-high fall, followed by traumatic brain injury, otorrhagia in the left ear, was hospitalized. Cranial computed tomography scan evidenced longitudinal fracture involving the mastoid cells, extending to the external auditory canal and left Chaussé spur avulsion. Cochlea, ossicular chain, vestibule and semicircular canals unchanged. One month after the trauma, the patient started to experience vertigo caused by head position changes. Five months later, the vertigo episode persists, but the patient denies hearing complaints and presents unchanged otoscopy, negative Hennebert sign and bilateral presbycusis compatible audiometry. The execution of the Dix-Hallpike maneuver confirmed posterior canal benign paroxysmal positional vertigo bilaterally, being more intense in the left ear. Symptoms were overcome after two Epley maneuver interspersed courses for one week.

**Conclusion:** Longitudinal fractures represent 85% of temporal bone fractures and may develop later with benign paroxysmal postural vertigo secondary to migration of otoconia from the vestibule to the posterior semicircular canal. Specialized assessment of vertigo is essential, allowing for correct diagnosis and treatment by excluding other causes, such as vestibular nerve lesions, labyrinthine fistulas or perilymphatic hydrops.

#### 10506 Peripheral facial palsy in association with tertiary syphilis - case report

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**Introduction:** Peripheral facial palsy (PFP) has several possible etiologies. Most are unilateral and idiopathic (called Bell's palsy), but when it is bilateral, it tends to be secondary to neurological, infectious, traumatic, neoplastic or metabolic conditions.

**Objectives:** To report a case of syphilis diagnosis after otorhinolaryngological evaluation of PFP.

**Resumed report:** Patient R.A.O., 23 years old. Immunosuppressed due to kidney transplantation in 2018, without other comorbidities. Attended by the Otorhinolaryngology team at the Emergency Room of Hospital das Clínicas de Botucatu in July 2020 with right PFP. At the time of evaluation, the degree of nerve damage was fourth, according to the House-Brackmann score, and a presumptive topognosis was distal to facial nerve's mastoid segment (normal Schimmer and normal Gustation tests). It was noted non-pruritic palmoplantar spots and on trunk and lower limbs. When questioned, he reported a genital nodule that had appeared 20 days ago. Referred for Infectology evaluation, serology and liquor was collected, and the result was: VDRL positive 1/16 and the liquor's cytopathologic showed nonspecific lymphocytic and neutrophilic inflammatory infiltrate with non-reactive VDRL. Although the liquor's serology did not confirm the diagnosis, we opted for treatment for Neurosyphilis with Penicillin Potassium 4,000,000 units for 14 days. After 30 days, the patient evolved with complete recovery of facial movement and continues to be followed up with infectology and otolaryngology.

**Conclusion:** Due to changes on liquor and temporal correlation, even the PFP being unilateral, it was inferred to be a syphilitic manifestation. More studies are needed in this case.

#### 10507 Oral lichen planus reticularis: A case report

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**Introduction:** Lichen planus is a T-cell mediated chronic inflammatory mucocutaneous disease of unknown etiology. Oral lichen planus may appear isolated or associated with cutaneous lichen

planus, with different evolutionary changes. Oral manifestations tend to be chronic and difficult to treat. The most common clinical form is the reticular one, characterized by the presence of thin intertwining white streaks, called Wickham streaks. Diagnosis is clinical and histopathological. There is no curative treatment, but topical and systemic corticosteroids allow for disease control.

**Objectives:** To describe the clinical characteristics of a patient with oral lichen planus reticularis with an early diagnosis and adequate treatment.

**Resumed report:** Patient, female, 40 years old, was admitted to this service due to asymptomatic lesions in the cheek mucosa and lower lip. She reported the habit of biting her own oral mucosa. On examination, she presented hyperchromic lesions with fine white lines with a lacy appearance on the lower lip and bilateral cheek mucosa. Melasma was observed in the nasal, malar and perioral regions, already in follow-up with a dermatologist. A biopsy of the lower lip lesion was performed, the result of which corresponded to oral lichen planus. She underwent treatment with topical triamcinolone acetonide in the labial region and dexamethasone syrup, for 3 months, and prednisone 40mg/day for 10 days, with partial improvement of the condition.

**Conclusion:** Due to the difficult treatment of oral lichen planus, long-term therapy and corticosteroids are generally needed to control the condition.

**Keywords:** oral lichen planus, stomatology, autoimmunity.

#### 10508 Laryngeal Leishmaniasis: A rare case in an adolescent

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**Introduction:** Mucocutaneous leishmaniasis, is usually secondary to hematogenic dissemination. It may present with infiltrative, ulcerated or vegetant lesions in the nose, pharynx, larynx and mouth. Despite the low prevalence, laryngeal involvement should be considered as a differential diagnosis of nonspecific chronic laryngitis, granulomatous lesions and even upper airway tumours with atypical evolution.

**Objectives:** To report a case of laryngeal leishmaniasis in an adolescent addressing the diagnostic difficulty, complications and applied therapy.

**Resumed report:** Patient M.P.E, 15 years old, natural from Valença -BA, endemic region of leishmaniasis. Attended at the otorhinolaryngologist of Santa Marcelina's hospital in São Paulo, with progressive dysphonia and dysphagia, 6kg weight loss. He had a previous history of cutaneous leishmaniasis 7 years before presentation and, treatment was performed at the time. At telelaryngoscopy, infiltrative nodular lesions in supraglottis involving epiglottis, aryepiglottic folds and aritenoids were visualized. Laboratory tests were remarkable for positive IgG for leishmaniasis. Neck tomography showed expansive and infiltrative tissue with heterogeneous enhancement through iodate contrast. He was submitted to suspension laryngoscopy with biopsy of the injury, whose histopathological result was an ulcerated chronic granulomatous inflammatory process. Cultures of the laryngeal mucosa for specific bacteria, fungi and protozoa were negative. Patient started treatment with endovenous Amphotericin B for 30 days. Important clinical improvement was observed, however there was partial epiglottis amputation as a sequel.

**Conclusion:** Early diagnosis of mucosal injury is essential for effective therapeutic response and to avoid deforming and/or functional complications.

**Keywords:** leishmaniasis, larynx, granulomatous.

#### 10509 Branchio-otorenal syndrome: A rare case

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**Introduction:** The present case describes occurrence of branchio-otorenal syndrome, which is a rare autosomal dominant

genetic disease, associated with hearing loss, auricular malformations, remnants of the branchial arch and renal anomalies. Most mutations occur in the EYA1 gene. Its diagnosis is simple based on major criteria: renal abnormalities, deafness, brachial abnormalities and pre-auricular cleft; and in minor criteria: pre-auricular cyst, and abnormalities of the inner, middle and / or outer ear; requiring 3 major criteria, 2 major and 2 minor criteria, or 1 major criterion in a patient with a first-degree relative with this syndrome.

**Objectives:** To report a case of branchio-otorenal syndrome in an adult male.

**Resumed report:** Male patient, 29 years old, in investigation of reduction of auditory acuity in left ear, since childhood, with progressive worsening, without other associated symptoms. It has a single kidney, without other comorbidities. On examination, a pre-auricular appendix is noted in the left ear, with free external auditory canal and intact tympanic membrane. No alteration in the right ear. Previous audiometry showed normoacusis in the right ear and moderate sensorineural loss in the left ear. A new audiometry was requested, demonstrating normoacusis in the right ear and anacusis in the left. Skull resonance was also requested, without changes.

**Conclusion:** Branchio-otorenal syndrome is a rare autosomal dominant genetic disease, characterized by renal abnormalities and abnormalities of the second branchial arch. In this case, the patient had 3 major criteria, closing the diagnosis.

**Keywords:** branchio-otorenal, genetic disease, anacusis.

#### 10510 Melkersson-Rosenthal syndrome: A rare case report

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**Introduction:** Melkersson-Rosenthal syndrome is a rare disorder, characterized by the triad: sudden, recurrent peripheral facial palsy, edema in paralyzed hemiface or on the lips and presence of fissured tongue. The complete syndrome is uncommon, being the oligosymptomatic form more frequent. Etiopathology remains unknown, with a likely genetic component, being more common in young females. Diagnosis is essentially clinical. Treatment is controversial, with systemic corticosteroids being the most indicated.

**Objectives:** To describe clinical characteristics of Melkersson-Rosenthal Syndrome.

**Resumed report:** Patient, female, 62 years old, with otalgia on the right, edema in the ipsilateral hemiface and worsening of peripheral facial palsy on the right, for 1 month, associated with dysphagia for solids and liquids. She reports 2 previous episodes, both on the right side, the first 3 years ago and the second 4 months ago. The first episode had partial improvement of symptoms with prednisone 60mg/day for 10 days, maintaining mild facial paralysis on the right. The second episode was not treated. On examination, the patient presents with cleft tongue and house brackmann II paralysis in the right hemiface. In the blood and imaging tests, she presented only reactive IGG for Herpes simplex. She underwent treatment with prednisone 60mg/day for 15 days with improvement only in the right earache, being referred to physical therapy, with remission of dysphagia.

**Conclusion:** Due to the rarity of Melkersson-Rosenthal Syndrome, etiopathogenesis is unknown, making effective treatment difficult. The use of systemic corticosteroids and physiotherapy showed good results in this case.

**Keywords:** facial paralysis, melkersson-rosenthal, corticoid.

#### 10511 Severe facial palsy associated with acute otitis media

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**Introduction:** Nowadays, antibiotics have reduced the incidence of peripheral facial palsy associated with acute otitis media. It is more common in children. In adults is not so common, however,

this age range has greater chance of developing its complication. Clinical treatment with antibiotics and corticosteroids is effective in most patients. Surgical treatment (mastoidectomy with facial nerve decompression) has strict indications in those patients who have a worsening of their otitis symptoms or facial paralysis even with clinical treatment and also if the patient keeps grade VI paralysis after three weeks of treatment.

**Objectives:** To report a case of severe facial paralysis associated with acute otitis media with good response to surgical treatment to facial nerve decompression.

**Resumed report:** A 79-year-old man that initially had otalgia, otorrhea in the left ear after a upper airway infection, evolving with severe peripheral facial palsy on the left. He used antibiotic therapy and corticoids, with improvement in the infectious condition, but without improvement in paralysis, House-Brackman grade VI. Tomography showed veiling of the mastoid and middle ear with left involvement of the bony walls of facial canal. Electroneuromyography showed severe axonal neuropathy of the facial nerve. The patient underwent left mastoidectomy surgery with facial nerve decompression, postoperatively with progressive improvement of grade III facial palsy.

**Conclusion:** Peripheral facial palsy stemming from acute otitis media is rare, treatment with antibiotics and steroids was efficient for most patients and surgical treatment in cases of bad electrical prognosis caused an improvement in palsy.

**Keywords:** otitis, palsy, surgical.

### 10513 The primitive melanoma of nasal mucosa and paranasal sinus

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**Introduction:** Melanoma of nasal mucosa is a very aggressive tumor, that represents less than 1% of all melanomas and less than 1% of tumors in this location. It is characterized by high mortality and difficult diagnosis, with a high rate of metastasis and low survival. Initial symptoms and signs are nonspecific, and diagnosis is histological. The first choice of treatment is always surgery with free margins. In cases where excision is not complete, the treatment of choice is radiotherapy, either adjuvant or palliative.

**Objective:** To describe a case of extensive nasal-sinusal melanoma with clinical control and tumor reduction on palliative radiotherapy.

**Resumed report:** A 66-year-old woman, with a historic of progressive nasal obstruction on right side, associated with mild epistaxis and dark fetid secretion, without improvement on treatment with antibiotics and corticoids. She had a visual blurring to the right and weight loss of approximately 10 kg, with no other systemic symptoms. On physical examination, presented a mass in the right nasal vestibule. Resonance showed a large solid expansive lesion occupying the nasal cavity, rhino pharynx, maxillary sinus, ethmoid and sphenoid to the right, invading the orbital bone floor and papyraceous lamina, leading to ocular proptosis. Histopathological and immunohistochemistry diagnosed mucosal melanoma. Patient has refused surgical treatment, with good clinical response to radiotherapy and chemotherapy.

**Conclusion:** Nasal-sinusal melanoma is a rare disease with a nonspecific clinical picture, aggressive nature and high recurrence rates. The preferred treatment is surgical and adjuvant radiotherapy favors local control.

**Keywords:** mucosal melanoma, neoplasm, radiotherapy.

### 10515 Paradoxical rhinoliqorrhea

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**Introduction:** Liquoric fistula consists of the communication between subarachnoid space and external environment.

Rhinoliqorrhea indicates which path of the fistula is at the anterior base of the skull. But there is paradoxical rhinoliqorrhea, in which the cerebrospinal fluid is exited to middle ear, but as tympanic membrane is intact, this cerebrospinal fluid can be exited through the nostril, through auditory tube.

**Objectives:** To report case of retromastoid craniotomy due to vestibular schwannoma, progressing with paradoxical rhinoliqorrhea in left nasal cavity and meningitis, due to left iatrogenic cerebrospinal fluid leak, having undergone subtotal petrosectomy to correct it, after failure of conservative treatment.

**Resumed report:** Patient, male, 62 years old, with progressive hearing loss and tinnitus, bilaterally, worse on the left, for 2 years. On examination, he presented left facial paralysis house-brackmann V, without any other changes. He underwent skull resonance, showing an expansive solid lesion at angle of the left cerebellar point with an extension to internal auditory canal, suggestive of vestibular shwannoma. Retromastoid craniotomy was performed, evolving 2 days later with hyaline secretion leaving the left nasal cavity, and 4 days later, with meningitis. A new tomography and resonance of the skull was performed, showing characteristic image of liquoric fistula on the left. Due to failure of conservative treatment, he was then submitted to subtotal petrosectomy for its correction.

**Conclusion:** Liquoric fistula can lead to serious complications, such as meningitis, and after unsuccessful attempt at conservative treatment, surgical correction should be performed.

**Keywords:** Rhinoliqorrhea, paradoxal, facial paralysis.

### 10516 Laryngeal amyloidosis: A rare case

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**Introduction:** Amyloidosis is a pathology caused by the abnormal deposit of serum proteins in different regions of the body, which can cause variable symptoms according to the type, location and amount of deposition. It is classified as localized or systemic. Although rare, one of its main forms is laryngeal amyloidosis, which is of great importance in the differential diagnosis of tumors in the region.

**Objectives:** Report a case of laryngeal amyloidosis in a paciente admitted to Otorhinolaryngology departmet of Hospital Santa Marcelina (HSM) in São Paulo, as well as discuss its diagnostic approach.

**Resumed report:** Patient I.C.S., male, seventy-one-years-old, complaining of odynophagia and intermittent dysphonia dating back 8 months, without dyspnea or other local or systemic symptoms. Denied a history of smoking or excessive voice use. Through laryngostroboscopy, it was possible to visualize a bulged, smooth, yellowish and irregular view in a right ventricular band, covering the entire vocal fold, and nodular lesions on the lingual surface of the epiglottis. Neck contrast tomography showed no invasive lesion. We opted for biopsy through direct laryngoscopy, whose pathological examination confirmed nodular amyloidosis, with positive Congo red staining. We opted, together with the patient, for regular follow-up, given the benign behavior of the disease and the small clinical impact on the reported patient, in addition to investigation for systemic amyloidosis.

**Conclusion:** Although rare, its diagnosis must be considered in laryngeal tumors so that there is a correct clinical follow-up and prevention of complications.

**Keywords:** larynx, amyloidosis, dysphonia.

### 10518 Peripheral facil palsy of central origin: An atypical presentation

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**Introduction:** Schizencephaly is a rare congenital anomaly that favors the formation of clefts in the cerebral hemispheres, and can



be classified as type I, with closed lips, where the edges of the clefts approach, and type II, with open lips, filled with cerebrospinal fluid. It can be unilateral or bilateral and cause several neurological disorders, ranging from pure motor deficit to severe intellectual disability.

**Objectives:** To demonstrate the manifestation of deafness and peripheral facial palsy in a patient diagnosed with Schizencephaly, admitted to Otorhinolaryngology department of Santa Marcelina Hospital.

**Resumed report:** M.B.S, male, six-years-old, with a history of hearing loss in the left ear and peripheral facial palsy since birth. In addition, he has right hemiparesis and frequent seizures without intellectual deficit. On examination, House Brackmann's grade IV left peripheral facial palsy and otoscopy without alterations. Audiometry showed anacusis in the left ear and normoacusis in the right ear. Postnatal cranial tomography showed bilateral frontal open-lip Schizencephaly. Recent magnetic resonance imaging demonstrates atrophic lesion in the paracentral area to the left. It was decided to maintain a joint follow-up with neurology and physiotherapy for the management of seizures and motor deficit.

**Conclusion:** It is essential to pay attention to the fact that peripheral facial palsy in rare cases, may suggest a central alteration. Therefore, especially in children without obvious otological causes, it is necessary to investigate the central causes for an adequate diagnosis and to improve their quality of life.

**Keywords:** schizencephaly, child, facial paralisis.

#### 10519 A case report: Primary tonsillar tuberculosis

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**Introduction:** Tuberculosis has broad epidemiological importance in Brazil. In oral cavity, most common site of presentation are tongue and palate, with tonsillar tuberculosis having incidence of only 2% of cases. There are several causes of tonsillar granulomatosis, which is not a daily finding, but tuberculosis must always be a strong hypothesis, disease which has an increasing incidence in last decades.

**Objective:** To present a case report of an immunocompetent patient with primary tonsillar tuberculosis.

**Case report:** E.C.N, 40-years-old, female, complaining of odynophagia for 1 year, on right side. Dysphagia for solids and liquids. Weight loss of 19 kg in 1 year. Low fever, night sweats, chills. Dry cough and dysphonia. Used multiple antibiotics without any improvement. Former smoker (1 pack/day for 12 years), denies comorbidities. On physical examination: right hypertrophied tonsil, infiltrating right anterior pillar and with fibrotic bands on its surface, larynx without alterations. Granulomatous screening was requested and tonsillectomy indicated. PPD result showing 15 mm nodule, pathology results showed reactive lymphoid hyperplasia, absence of malignancy, HIV and HBsAg non-reactive. Chest x-ray without signs of tuberculosis. Referred to infectology, treatment for tuberculosis started, with complete remission of symptoms.

**Conclusion:** When faced with tumors in tonsil region, hypothesis of neoplasia and granulomatous diseases should be ventured. It is important consider patient's clinical history, request granulomatous screening and biopsy for such patients. It is essential that otolaryngologist has a high degree of suspicion in these cases, for early diagnosis and treatment.

**Keywords:** tuberculosis; tonsillar tuberculosis; chronic angina.

#### 10520 Prevalence of tinnitus in the hospital otorrino in Cuiabá

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**Introduction:** Tinnitus is characterized by a sound sensation in the absence of external sound stimuli. In Brazil, there are 28 million that coexist as a symptom. Tinnitus is a complaint that impacts the

patient's quality of life. The public and private healthcare networks in Cuiabá do not have information on the prevalence of tinnitus.

**Objectives:** To describe and analyze the epidemiological profile of tinnitus symptoms at Hospital Otorrino in Cuiabá.

**Methods:** This is a selection of 43 medical records of patients from the Hospital Otorrino de Cuiabá, such as tinnitus, expressly given by absolute and relative frequency.

**Results:** Forty-three medical records with tinnitus complaints were studied. In the hospital I was 70 years old and or more recently I was 16 years old, an average of 46 years old. Or gender has no prevalence, being 50% in both sexes. Regarding location, bilateral presentation or higher rate of 32%, followed by left ear with 28% in two cases. According to the associated symptoms, 41% had numbness, vertigo and instability representing 22.7%, only 18.1% vertigo and 13.7% instability.

**Conclusion:** Tinnitus until or at the time it doesn't cure, it can cause psychological problems such as anxiety and depression. Increases food and no gender bias. It affects bilaterally and is associated with other symptoms. Therefore, it is important to quickly diagnose tinnitus, due to this influence on the patient's quality of life, and a multidisciplinary team is also needed to interfere and improve health and well-being.

**Keywords:** tinnitus, prevalence, hospital.

#### 10521 Atypical manifestations of Epstein-Barr virus in adults: A differential diagnostic challenge

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**Introduction:** Infection by the Epstein-Barr virus causes general symptoms of fever, pharyngitis and generalized lymphadenomegaly with reactive appearance, painful and mobile.

**Objectives:** To demonstrate the difficulty and importance of making differential diagnosis of Epstein-Barr infection with neoplasia.

**Resumed report:** B.A., 23-year-old, complaining of "mass" in the abdominal region and right axillary region for 2 weeks. Afterwards, appearance of "mass" in the right submandibular region, with progressive growth, for 4 days, associated with bulging in palate region. Also reported dyspnea and solid dysphagia for 1 day. On physical examination, bulging of right palate region, hardened on palpation and no floating point. Palpable submandibular lymph node on the right, mobile, fibroelastic, slightly painful. In right axillary region, lymph node palpation, mobile, not adhered to deep planes, painless, measuring approximately 2 cm. In abdominal region, palpable, mobile, painful lymph node enlargement, measuring 0.5 cm. Clindamycin and ceftriaxone were started, and infectious process and neoplasia were questioned. Radiology indicated that image of mass in axillary region may indicate neoplastic lesion, and lymph node biopsy was suggested. A 3-week course, complete remission of bulging in the palate region and absence of mandibular lymph node enlargement, but axillary remained palpable. Sorology result showed positive Epstein Barr IGG and IGM. Discarded the hypothesis of neoplasia by biopsy of axillary lymphomegaly.

**Conclusion:** Rigorous investigation for differential diagnosis with neoplasia is necessary, an unusual hypothesis, but should be considered. Pay attention to the difficulty of differential diagnosis in cases of generalized lymph node enlargement.

**Keywords:** epstein-barr; generalized lymphadenomegaly; neoplasia.

#### 10522 Non-Hodgkin linfoma in nasopharynxes: Case report

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**Introduction:** Lymphomas constitute 2.5% of malignant tumors of the head and neck. In 25-30 % of Non Hodgkin Lymphomas

(NHL) the presentation is extra-nodal of which 12-35% are located in the nasopharynx. Diffuse large B-cell lymphoma is the most common histologic type.

**Aim:** To report a case of LNH in nasopharynx, given the rarity of this pathology in this locality.

**Case report:** Patient 58 years old, female gender. Previous history of gastric (LNH) 4 years ago with complete remission. The patient was admitted to the ENT emergency department 3 months ago for nasal obstruction, anasalated voice, and aural fullness on the left side with no response to treatment for acute bacterial rhinosinusitis instituted 14 days before. Nasofibroscope revealed a whitish, homogeneous mass in the cavum with post nasal dripping observed at oroscopy, as well as bulging on the left soft palate. Otoscopy showed effusion in the left middle ear. Tomography and magnetic resonance imaging of the skull base showed a heterogeneous mass, near the skull base, to the left, displacing and reducing the air space of the rhinopharynx. Audiometry was compatible with serous otitis media on the left. The patient underwent cavum biopsy which showed diffuse large B-cell NHL. The patient was referred to oncology, where she is being monitored with chemotherapy. Last PET-CT normal, indicating complete remission.

**Conclusion:** Nasopharyngeal lymphomas are rare. The association of nasal symptoms with middle ear effusion, especially if resistant to medical therapy and prolonged in time, should raise the suspicion of a nasopharyngeal mass.

#### 10525 Periférico facial palsy as an initial presentation of congenital petrous apex cholesteatoma - case report

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**Introduction:** Cholesteatomas are congenital or acquired temporal bone epidermal inclusion cysts. They have the capacity to grow and can cause bone erosion with labyrinthine and neurovascular involvement. Although the majority are confined to the middle ear and mastoid, they can be embryologically originate or grow beyond of these limits, involving the optic capsule and petrous apex. The petrous apex cholesteatoma is rare, range for 4-9% of the pathologies of this region. It can develop over a long period with nonspecific symptoms and suddenly manifest with complications.

**Objective:** To report a case of congenital petrous apex cholesteatoma whose initial symptom was peripheral facial palsy.

**Resumed report:** 17-year-old, female patient, healthy, with headache, right peripheral facial palsy, otorrhea and anacusis. She had grade VI facial palsy (House-Brackman) and central perforation of the tympanic membrane associated to pulsatile mucoid otorrhea. She had no otological symptoms previously. Temporal bone computed tomography showed right mastoid veiling and bone erosion affecting the inner ear. Nuclear magnetic resonance showed expansive lesion on the petrous bone with the erosion of the inner ear canal, suggestive of cholesteatoma. Subtotal petrosectomy with obliteration was performed. The patient had a good evolution and, at the present moment, has a discreet facial paresis.

**Conclusion:** Early identification of petrous apex cholesteatoma is challenging, but extremely important to avoid hearing loss, vestibular dysfunction, facial palsy and intracranial complications. Good clinical evaluation and quality imaging exams are essential in these cases.

**Keywords:** cholesteatoma; petrous apex; facial palsy.

#### 10526 Pyogenic granuloma in a patient with nasal tuberculosis

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**Introduction:** Tuberculosis is an infectious-contagious disease caused by *Mycobacterium tuberculosis*. Transmission occurs by air, through particles released by a bacillary patient. Nasal tuberculosis is a rare

occurrence, usually secondary to pulmonary tuberculosis. The main route of infection is hematogenous, and the most common area of occurrence is the antero-inferior portion of the nasal septum. The most common symptoms are lymphadenopathy, rhinorrhea and nasal obstruction. As diagnostic methods, bacteriological, radiological, histopathological and tuberculin tests are used. Clinical treatment is the most recommended.

**Objectives:** To discuss the diagnosis of nasal tuberculosis as the etiology of ulcerated pyogenic granuloma in the nasal cavity.

**Resumed report:** A woman, seventy-five years old, complaining of recurrent episodes of epistaxis in the right nasal cavity and progressive nasal obstruction for one year, with no relevant personal history. Rhinoscopy revealed a nodular lesion measuring approximately two centimeters in the anterior region of the right nasal septum. There was no palpable lymph node enlargement. The biopsy showed ulcerated pyogenic granuloma and the laboratory screening showed positive tuberculin test. Imaging exams did not show alterations suggestive of pulmonary tuberculosis. The therapeutic regimen for nasal tuberculosis was started.

**Conclusion:** Nasal tuberculosis is rare, occurring in only 0.1% of cases of upper respiratory tuberculosis. Diagnosis is difficult since symptoms are nonspecific, so it is essential that otolaryngologists always remember this condition as a potential cause of uncommon head and neck injuries.

**Keywords:** nasal tuberculosis; epistaxis; pyogenic granuloma.

#### 10527 Sudden anosmia in the pre-COVID era

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**Introduction:** Anosmia following viral infection was an unknown entity for many physicians before the COVID-19 pandemic. Its physiopathology remains unknown. Theories range from direct injuries to the olfactory bulb, inflammation and obstruction of olfactory clefts of cribriform plate, to immunohistochemical expression changes in nasal epithelium caused by Rhinovirus, Epstein-Barr virus, Parainfluenzavirus, and coronavirus itself.

**Objectives:** Prognosis of olfactory dysfunction caused by viral agents is usually favorable. Irrecoverable postviral anosmia was not frequently described before COVID-19 pandemic onset.

**Resumed report:** A.L.C., 31 years old, female, presents with sudden anosmia after self-limited upper airway infection in 2014. She maintained intermittent nasal obstruction, having undergone treatment with nasal corticosteroids for about twelve months, associated with olfactory training, without significant improvement. A computed tomography scan of paranasal sinus evidenced no alterations and nasofibrolaryngoscopy demonstrated only septal deviation and turbinates hypertrophy. Blood count, vitamin B12 dosage, renal and thyroid function tests within normal range. Brain magnetic resonance imaging showed asymmetric tapering of olfactory bulbs and hypersignal in T2/FLAIR, suggesting sequelal alterations. After six years, the patient persisted with anosmia.

**Conclusion:** Effective treatment anosmia has not been properly investigated based on clinical trials. No established protocol is available, although there is strong recommendation for the use of olfactory training. The present case demonstrates the importance of the study of postviral olfactory disorders long before the current health conjuncture. It is necessary to search for more accurate diagnostic methods and effective treatments to reduce morbidity of millions of post COVID survivors.

**Keywords:** anosmia, viral infection, olfactory disorders.

#### 10531 Invasive and symptomatic condroma: An exception

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**Introduction:** Chondromas are benign cartilage-forming tumors originating from the bone marrow. They account for about

3% to 10% of bone tumors and are usually incidentally diagnosed on imaging exams during the second decade of life. In most cases, it is asymptomatic and has an insidious evolution, with eventual presence of pain, especially if associated with bone fractures. Tumor recurrence is uncommon, as is its malignancy.

**Objectives:** To describe an atypical case of benign tumour with debilitating clinical presentation and invasive behavior.

**Resumed report:** F.C.S., 66-years-old, male, smoker, complaining of otalgia, otorrhea and hearing loss in the left ear that had started two months ago, with progressive worsening. He evolved in one month with relevant weight loss, dysphagia, pain worsening and left facial paralysis. Cranial tomography with mastoid erosion and hypodense material in the left wall of the rhinopharynx, with erosion of the clivus and sphenoid bone. Endonasal approach for biopsy was performed, without success. Progressed to bicoronal neurosurgical approach; showing histopathological result of chondroma in biopsy. Due to the invasive and debilitating feature of the presented disease, it was opted for radiotherapy treatment, obtaining tumor regression and clinical improvement, especially of the pain.

**Conclusion:** Condromas are benign tumors, and despite being uncommon, they can be locally aggressive and cause a variety of symptoms. Known benign tumors can have an unusual presentation, disabling patients and having a great impact on their quality of life. These cases represent a great challenge in clinical otolaryngologic practice.

**Keywords:** condroma, rhinopharynx tumour, oncology.

#### 10532 Carotid bulb paraganglioma – Case report

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**Introduction:** Carotid body tumors are rare, presenting about 0.5% prevalence of all specialty tumors, and 0.012% of all neoplasms, however, about 60 to 70% of these are paragangliomas.

**Objectives:** This case report aims to report a case of carotid bulb tumor, in this case a paraganglioma, due to its rarity this served as a focus for the team to review clinical signs of suspicion in the physical examination and anamnesis.

**Resumed report:** Female patient, 42 years old, complaining of a left cervical mass since 2018, accompanied by pain in the lower dental arch, especially on the left side. The patient had a MRI scan of the cervical region, which changed a solid tumor mass, with hyposignal on T1 and hypersignal located in the bifurcation of the common carotid on the left, homogeneous with well-delimited and lobulated contours, presenting intense and diffuse enhancement to paramagnetic contrast. Compressing the emergence of the internal and external carotids. Compatible with previous suspicion of carotid glomus tumor, paraganglioma. Angiography was performed with a diagnosis suggestive of carotid glomus. With surgical indication, the team will perform the procedure in conjunction with vascular surgery that will perform an embolization before resection.

**Conclusion:** Carotid body tumors are rare and uncommon, being multidisciplinary, requiring a insightful and assertive surgical approach both from Vascular Surgery and from Head and Neck Surgery, aiming at patient safety, enabling low mortality. And when no treatment is offered, regardless of whether the tumor is benign or malignant, the risk of mortality reaches 30%.

#### 10533 Partial amputation of the epiglottis in a patient with laryngeal tuberculosis

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**Introduction:** Laryngeal tuberculosis is one of the most frequent granulomatoses of this organ. Pharyngolaryngeal lesions are generally secondary to pulmonar tuberculosis. The delay in diagnosis is due to its different clinical presentations. The main symptoms

include dysphonia, dysphagia, odynophagia and, in more advanced cases, cough and dyspnea.

**Objectives:** To report a case of laryngeal tuberculosis with clinical presentation most frequently found in laryngeal paracoccidioidomycosis.

**Case report:** A 25-year-old male prison inmate, already undergoing treatment for miliary tuberculosis for 3 months, was admitted to the Voice Disorders Outpatient Clinic of the Hospital Botucatu Medical School complaining of dysphonia and dysphagia associated with odynophagia for 2 months. Telelaryngoscopy showed partial amputation of the epiglottis, decreased vestibular folds, mobile vocal folds, adhesion in the anterior commissure and edema and hyperemia of the entire supraglottis. A biopsy of the residual portion of the epiglottis was then performed: mucosa with nonspecific chronic inflammatory infiltrate, negative for research on acid-alcohol resistant agents (BAAR), absence of neoplasia and fungal agents. Upon return, the patient presented improvement in dysphagia and dysphonia due to laryngeal adaptation to the absence of the epiglottis.

**Conclusion:** Although the clinical presentation of epiglottis amputation is more commonly found in patients with paracoccidioidomycosis, in this case we can observe it as a sequelae of a patient with miliary tuberculosis.

**Keywords:** laryngeal tuberculosis, epiglottis amputation, dysphagia.

#### 10535 Cholesteatoma in a patient with Darier's disease

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**Introduction:** Darier's disease is a rare autosomal dominant genodermatosis characterized by a persistent eruption of fatty and hyperkeratotic papules in seborrheic regions. Although rarer, it is possible that there is damage to the external auditory meatus. For diagnosis, excision of the lesion for biopsy is necessary.

**Objectives:** To discuss the clinical aspects of Darier's disease as a cause of middle ear cholesteatoma.

**Resumed report:** Male, sixty years old, healthy, with fetid otorrhea in the left ear for seven years and recurrent otitis with intermittent non-pulsatile tinnitus. On examination, he presented a large amount of secretion in the left ear and external auditory meatus with a polypoid aspect. Computed tomography of temporal bones showed hypoattenuating material occupying the mastoid antrum and bilateral tympanic cavity, thickening of the proximal segment of the external auditory meatus and erosion of the ossicular chain on the left side, without contralateral alteration, the findings being compatible with chronic cholesteatomatous inflammatory otomastoidopathy on the left. A biopsy of the external auditory meatus lesion showed supra-basal acantholytic dermatosis compatible with Darier's disease, as well as a lesion in the temporal region of the skin with the same result. A left radical mastoidectomy was performed with a histopathological result of cholesteatoma.

**Conclusion:** Darier's disease can coalesce and form large crusted papillomatous masses, as in the case patient who developed cholesteatoma of the left ear due to involvement of the tympanic membrane and hyperkeratotic material inside the middle ear.

**Keywords:** cholesteatoma; middle ear; Darier's disease.

#### 10536 Quantitative analysis of the presence of intra-operative hemorrhage in adenotomigdalectomies at Hospital Otorrino in Cuiabá, Mato Grosso

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**Introduction:** Adenotonsillectomy is a surgical procedure most often performed in the otorhinolaryngological specialty, with numerous indications. In addition, intense intraoperative hemorrhage is common.

**Objective:** The objective of this study is to increase the knowledge of the bleeding regularity of tonsillectomies, quantitatively analyzing intraoperative hemorrhage.

**Methods:** Adenoidectomy and/or tonsillectomy was analyzed in our service. Age, sex, weight, comorbidity, surgical indication, surgery performed, surgical time, volume aspirated at the end of surgery, volume of saline used and volume of intraoperative hemorrhage, with the same surgical technique, were selected for analysis.

**Results:** Eleven people who underwent adenotonsillectomy, 07 male, 04 female, were included in this study. Most aged between 03 and 06 years and 02 patients were obese and smoking. Surgical indication was adenoid hypertrophy in 01 cases, tonsil hypertrophy in 1 case, adenoid and tonsil hypertrophy in 02 cases and recurrent tonsillitis in 7 cases. The mean surgical time was 1h and 31min in 11 cases. The mean of the aspirated volumes was 129,36 ml. Adults aged 3 to 6 years had an average aspirated blood volume of 73.8 ml during adenotonsillectomy.

**Conclusion:** It was concluded that, in our service, that the highest prevalence in males and in the age group from 03 to 06 years of age, with an average aspirated blood volume of 73.8 ml, one of the highest presented. Furthermore, it raises the idea of precaution for intraoperative bleeding, in addition to new studies on the subject, scarce in the literature.

**Keywords:** tonsillectomy, adenoidectomy, bleeding.

### 10537 Inflammatory myofibroblastic tumor: Temporal bone involvement

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**Introduction:** Inflammatory myofibroblastic tumor (IMT) is recognized by presence of myofibroblast, fibroblasts associated with inflammatory cells. Etiology is controversial and mainly affects the gastrointestinal tract, liver and lungs. In the head and neck region (5%), the orbit is the most common location. Temporal bone and skull base are rarely involved. Histopathologically benign, but can erode the mastoid tegmen, facilitating intracranial invasions. Image must be done to show the extension. Treatment is surgical, steroids and radiotherapy are reserved for specific cases.

**Objective:** Report a case of IMT affecting the temporal bone and alert to its similarity with other more prevalent ear pathologies.

**Resumed report:** Female, 39 yo, healthy, presenting with persistent otalgia and hearing loss in the left and normal otoscopy. Mastoid tomography showed opacification of the middle ear and mastoid, suggestive of acute otitis. Audiometry showed moderately severe mixed hearing loss. Treatment with several antibiotics and placement of ventilation tube had no success, since the patient maintained otalgia and headache. An investigation was performed to rule out granulomatous and rheumatological diseases and brain magnetic resonance showed a nonspecific inflammatory process. Canal wall up mastoidectomy was performed, which revealed friable material throughout the mastoid with erosion of the tegmen and bone over the sigmoid sinus. Anatomopathological demonstrated TMI.

**Conclusion:** Prognosis of IMT will be better the earlier it is diagnosed, being this the greatest challenge, since its similarity to other common diseases. Thus, a careful investigation is necessary when facing persistent otitis.

**Keywords:** inflammatory myofibroblastic tumor; temporal bone; inflammatory pseudotumor.

### 10539 Primary oral melanoma – report case

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**Introduction:** Primary oral melanoma is an extremely rare malignant neoplasm of unknown etiology. It has the elevated tendency to invade in depth and the early hematogenous metastasis with a poor prognosis.

**Objectives:** The objective of this paper is to report the case of oral melanoma localized in alveolar gingiva with dissemination of hard palate and buccal mucosa and another in lower lip and to emphasize the importance of the intra-oral clinical examination.

**Resumed report:** A 70-year-old female was referred to the Department of Dermatology with a history of blackened lesions in the right upper alveolar gingiva and hard palate, painful and with slight bleeding, also reported weight loss of approximately 20 kg in 1 year, toothless using total prosthesis 30 years ago. The clinical diagnostic was established as oral melanoma. Incisional biopsy of alveolar gingiva was carried out under local anesthesia. Histopathological examination revealed extensive superficial mucosal melanoma, Breslow 1.5. Due to the advanced stage in the diagnosis of OM, the patient was submitted to immunotherapy and radiotherapy, but without response and with the progression of the disease and is currently undergoing palliative care.

**Conclusion:** OM has a direct relationship with the stage at the time of diagnosis, especially when the diagnosis is late. Therefore, we emphasize the importance of the intra-oral clinical examination, and the knowledge and special attention for pigmented lesions of the oral mucosa, the importance of diagnosing pathological anatomy so that we can achieve an early diagnosis and improve the quality of life of these patients.

### 10541 Extranodal Rosai-Dorfman disease with otologic involvement

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**Introduction:** Rosai-Dorfman Disease (RDD) is a rare, benign and self-limited condition, affecting lymphatic chains of head and neck and also extranodal sites (25%-43%). Skin is the most common affected extranodal site (10%) and the purely cutaneous variant is even more rare (3%). Of obscure etiology, this pathology is considered an idiopathic histiocytosis. Laboratory, imaging and biopsy tests make the diagnosis. Systemic treatment is recommended in patients with vital organs involved, but in RDD restricted to the skin, surgical excision of the lesion is sufficient.

**Objective:** Report a rare case of purely cutaneous RDD and alert to the diagnosis of this pathology that can be easily confused with other more prevalent diseases, delaying its recognition and treatment.

**Resumed report:** Male, 52 yo, diabetes mellitus, presenting otalgia, otorrhea and hipoacusia on the right side in the past 5 months. CT demonstrated presence of soft tissue material in the external auditory canal and erosion of its anterior wall, communicating with temporomandibular joint and parotid region. Normal laboratory tests. Necrotizing external otitis was suspected, but there was no improvement in the symptomatology with adequate antibiotic therapy. Opted to perform tympanomastoidectomy with debridement and wide resection of the lesion. Pathology showed granulation tissue with lymphohistiocytic infiltrate suggestive of RDD.

**Conclusion:** As RDD is a rare disease with clinical manifestations similar to other common pathologies, diagnosis often becomes challenging and late. Therefore, when otitis evolution becomes atypical, it's suitable to consider RDD as a differential diagnosis in order to favor prognosis.

**Keywords:** Rosai-Dorfman disease; skin; sinus histiocytosis with massive lymphadenopathy.

### 10544 Submandibular sialolite - case report

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**Introduction:** Sialoliths are calcified structures of slow and gradual growth, which develop in the ductal system or inside a gland, obstructing or hindering the normal flow of saliva. Sialolithiasis can



occur in any gland, however, there is a greater predilection for the submandibular gland. The crystals are formed by two components: an organic one comprising glycoproteins, mucopolysaccharides, lipids and cellular debris and an inorganic one which includes carbonate apatite, calcium salts and several types of phosphates, including iron, copper, zinc and magnesium.

**Objective:** To report a case of sialolithiasis treated at Angelina Caron Hospital, the surgical treatment performed and the patient's clinical evolution.

**Case report:** JSB, male, 75 years old, referred to the otorhinolaryngology service to evaluate the excision of a lesion in the right submandibular region, with solid consistency, painful movement that worsens during the prandial period. Tomography of the face demonstrates a calcified lesion measuring 2.5 x 1.6 cm in the topography of the right submandibular gland. The patient was referred for surgical approach, where excision was performed through the oral cavity. In the first week after surgery, the patient presented significant edema in the sublingual region. Evolved with improvement over the days.

**Conclusion:** There are several treatment methods for sialolithiasis depending on each case. For this, the choice of the appropriate technique, the size and location of the stone, the presence of associated infection and, mainly, the professional's experience must be taken into account. However, whenever possible, we should opt for less invasive methods.

#### 10545 Case report: Cystic adenoid carcinoma of the external auditory canal

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**Introduction:** Malignant tumors temporal bone are uncommon, representing less than 0,2% of head and neck cancers. Of these, only 5% are cystic adenoid carcinoma (CAC). Symptoms are site related, the main one being otalgia. Otoscopy can reveal tumor mass, ulceration or normality. Imaging is essential to determine extension and treatment is surgical, but may require radiotherapy. Diagnosis must be confirmed by histopathology. It shows poor prognosis due to its infiltrative characteristics, neurotropism and late diagnosis. Survival in five years ranges from 50%-90% and, in fifteen years, 25%.

**Objective:** Report rare case of CAC in the temporal bone to alert and assist in the early diagnosis of malignant tumors in this topography, as it's essential for effective treatment.

**Resumed report:** Male patient, 38 yo, presenting otalgia and hearing loss on the right side, without other associated symptoms. At otoscopy, a nodule with regular contours and fibroelastic consistency is seen in the external auditory canal (EAC). Tomography showed nodulation in the proximal third of EAC, without bone erosion. Biopsy of the lesion demonstrated CAC with perineural infiltration. It was performed "en-block" resection of the tumor with free macroscopic margin, subtotal petrosectomy, partial parotidectomy and cervical lymphadenectomy of II, III and IV ipsilateral levels.

**Conclusion:** Early identification of temporal bone malignant tumors is challenging, but essential for better prognosis. Thus, a high level of suspicion must be maintained in order to establish a timely diagnosis and conservative surgical approach with greater preservation of adjacent structures.

**Keywords:** cystic adenoid carcinoma; temporal bone tumors; petrosectomy.

#### 10547 Vertical nystagmus: Benign paroxysmal positional vertigo with mixed vestibular disorders- a case report

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**Introduction:** Vertical nystagmus or in multiple directions is suggestive of central pathologies. Vertical-torsional nystagmus may be related to benign paroxysmal positional vertigo.

**Objectives:** Report a benign paroxysmal positional vertigo case with Mixed vestibular disorders.

**Resumed report:** M.I.P.B. Female patient, 81 years with vertigo postural complaints without hearing loss and tinnitus complaints. Reported visual disturbances and used Betaistina 24mg 12/12hrs with no improvement. Examination of Balance and Cerebellar function within normal results. In the positional tests at supine position upbeat vertical nystagmus appears and in the sitting position the nystagmus reversed to downbeat vertical nystagmus followed by vertigo. Due to suspicion of central vertigo Brain Magnetic Resonance and Arterial Angioresonance of Cerebral Vessels were requested within normal results. The patient persists with vertigo complaints. In the Dix-Hallpike manoeuvre nystagmus of typical canalithiasis posterior semicircular canal accompanied by vertigo occurred bilaterally. Epley Maneuver was performed bilaterally. The Dix-Hallpike and Lateral Canal Maneuver were retested with absence of nystagmus and vertigo bilaterally. The patient still reports mild dizziness in some daily moments and exercises to stabilize the vestibulo-ocular reflex were performed with complete improvement of the vertigo. Examination of videoelectronystagmography shows altered optokinetic and ipsilateral areflexia at caloric test. Vhit was not performed due to cervical alteration.

**Conclusion:** This case report is Mixed vestibular disorders that improved with Vestibular Rehabilitation and no medication administered were necessary.

**Keywords:** benign paroxysmal positional vertigo, vertical nystagmus, vestibulo-ocular reflex.

#### 10550 Forestier disease: Case report

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The aim of this paper is to report the case of an 84-year-old female patient diagnosed with Forestier's Disease, in which she presents with a sensation of odynophagia and progressive to solid and pasty dysphagia in the last six months with frequent choking. Forestier's disease or diffuse idiopathic skeletal hyperostosis (DISH) is a disease that affects mainly elderly people and both sexes, although more prevalent in men, in the case reported here, clear manifestations of the disease were observed, such as marked ossification of the longitudinal ligament anterior from C2 to T1 (DISH), in accentuated degree at the levels of C2 and C3, which resulted in bulging on the posterior wall of the oropharynx and reduction of the air column at these levels, with consequent severe dysphagia, therefore presenting the traditional diagnostic criteria for DISH. In the situation in which the patient was in order to remove osteophytosis of the cervical spine, surgical intervention was required, currently under follow-up, the patient is in a stage of evolution, feeding satisfactorily. The report described is in line with the common cases of DISH, as demonstrated in the discussion, in which surgical intervention is the appropriate treatment for severe dysphagia.

Although clinical examination is crucial, imaging tests such as computed tomography were essential for the diagnosis of DISH in this patient.

#### 10551 Pott's puffy tumor and nasosinus polyposis - case report

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**Introduction:** Nasosinus polyposis is a chronic inflammatory disease with the appearance of polypoid formations, leading to nasal obstruction, rhinorrhea, hyposmia and recurrent rhinosinusitis. Pott's Puffy Tumor results from the formation of a sub-periosteal abscesses of the frontal bone associated with underlying osteomyelitis, which may originate from a complication of sinusitis or local trauma.

**Objectives:** To describe a case of a patient with chronic rhinosinusitis who developed an interfrontal mass, lasting 2 years.

**Resumed report:** Female, 57 years old, reports frontal headache with local enlargement and throbbing pain, associated with nasal obstruction, rhinorrhea and posterior nasal drip for 2 years. Hypertensive, dyslipidemic under treatment, and smoker. On physical examination, presence of mass in the interfrontal region, immobile, softened, painful to palpation. Presence of middle nasal concha with appearance of bilateral polypoid degeneration. Skull tomography with hyperdense image 1.9x1.8 cm in the frontal region, thinning of the cortical bone of the bilateral frontal topography with hyperdense image in the interior of the frontal sinus of 4.7x1.8 cm, extending even the ethmoidal cells. Tomography of the paranasal sinuses with maxillary, frontal, anterior and posterior ethmoidal veiling. Patient referred for nasal endoscopic surgery.

**Conclusion:** We await the anatomopathological result, however it is possible to conclude that bilateral nasosinusoidal polyposis caused obstruction of the frontoethmoidal recess, preventing drainage of the frontal sinus, and, due to chronic rhinosinusitis, led to bone erosion of the frontal sinus and local bulging, characterizing itself as Pott's Puffy tumor.

### 10553 Nasopharyngeal tumor - case report

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**Introduction:** Nasopharyngeal tumors are rare, representing about 2% of head and neck tumors. It is more common in men and in individuals between the 4th and 5th decade of life. Among the histological types found, squamous cell carcinoma is the most common.

**Objectives:** To describe a case of nasopharyngeal tumor growing into the oropharynx.

**Resumed report:** JG, male, 58 years old, was admitted to the Otorhinolaryngology service at Hospital Angelina Caron with a 3 days history of massive epistaxis. On physical examination, presented bilateral epistaxis and a vegetating lesion of about 2 cm in the oropharynx, close to the uvula to the left and causing soft palate bulging. Magnetic resonance imaging showed a large solid lesion in the rhinopharynx, extending inferiorly to the oropharynx to the level of the uvula and anteriorly touching the nasal turbinates, with involvement of the following structures: prevertebral space, fossa of Rosenmüller, sphenoid bone, foramen ovale and anterior wall of the internal carotid artery. The tumor was resected and a biopsy was performed. Histopathological findings were characterized by squamous cell carcinoma. Afterwards, the patient was referred to the oncology service for radiotherapy.

**Conclusion:** Nasopharyngeal tumors have a poor prognosis among malignant head and neck tumors, due to its proximity to vital structures, the invasive nature of the tumor, the late symptoms and the difficulty in examining the nasopharynx. Growth into the oropharynx and nasal cavity is rare. The case reported shows a case of an unusual presentation of a nasopharyngeal tumor growing into the oropharynx.

**10556 Olfactory neuroblastoma, a rare malignant neoplasm**  
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**Introduction:** Olfactory neuroblastoma is a malignant neoplasm that can present in an indolent or aggressive manner; with the potential for rapid metastasis to cervical lymph node chains and to lungs and bones.

**Objectives:** To report a case of olfactory neuroblastoma as well as its particularities.

**Resumed report:** S.A.L, female, 60 years old, presented nasal obstruction, small volume epistaxis with spontaneous resolution, anosmia, rhinorrhea, mouth breathing, night snoring, apnea and a frontal headache with progressive worsening 2 years ago. In the

rhinoscopy, he presented a centered septum and a vascularized mass in the left nasal cavity. The tomography of the paranasal sinuses shows a material with soft tissue attenuation of ill-defined limits with epicenter in the ethmoid cells on the left and erosion of the ethmoidal bone trabeculate of the cribiform and papyraceous lamina. There are also soft tissue components that extend slightly to the left orbit. The tomography indicates obliteration of the superior meatus and part of the middle and inferior meatus on the left side and a partial blurring of the contours of the local nasal shells. The patient underwent a biopsy which revealed a solid epithelioid proliferation associated with blood vessels in the respiratory mucosa without significant atypia. The immunohistochemistry confirmed an olfactory nerve neuroblastoma.

**Conclusion:** The olfactory neuroblastoma is a rare disease whose literature is still scarce. The continuous follow-up of the patient for a long period is the best alternative to ensure an early approach to relapses and guarantee greater survival.

**Keywords:** olfactory neuroblastoma, neoplasm, tomography.

### 10557 Post-COVID infraorbital neuralgia: Case report

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**Introduction:** COVID-19 was declared a pandemic by the World Health Organization in March 2020. Since then, different manifestations have been described, mainly respiratory. However, there are several reports on neurological manifestations and after-effect, demonstrating the neurotropism of the coronavirus, as infraorbital neuralgia.

**Objective:** To report a case of infraorbital neuralgia after COVID-19 and to increase the discussion about a pandemic disease still under study.

**Case report:** TJJM, 81 years old, female, reporting cough and fever, was diagnosed with COVID-19, requiring hospitalization. After medical release, she developed pain and edema in the left zygomatic region and pain when chewing. On physical exam, she had pain on palpation of the left infraorbital region. Injectable local anesthetic was applied in the topography of the infraorbital nerve, showing immediate pain relief. Sinus tomography shows no changes. She was referred to the pain team and evolved with satisfactory improvement during follow-up.

**Conclusion:** In a pandemic scenario, with high demand for the use of the health system, it is important to resolve complaints in an objective and inexpensive way, reinforcing the importance of anamnesis and physical examination. In addition, attention should be paid to possible after-effect of COVID-19, even if there are not many reports, as it is a disease still under study. In the current literature there are reports of trigeminal neuralgia, but few cases of neuralgia of the infraorbital nerve, making the description of this case even more relevant.

**Keywords:** neuralgia, infraorbital, COVID.

### 10559 Case report: Desbuquois syndrome x hearing loss

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**Introduction:** Desbuquois Syndrome is a type of osteochondrodysplasia, that is, it presents alterations in the development of bones and cartilage. It is a rare condition, with autosomal recessive inheritance, and alterations in the CANT1 gene or in the XYLT1 gene. In some cases the cause is unknown. They may present with intrauterine growth retardation, short stature, and generalized joint laxity. The treatment of the disease is directed to the signs and symptoms present in each individual.

**Objectives:** To evaluate the relationship between patients with Desbuquois Syndrome and profound hearing loss.

**Resumed report:** Female, 5 years old, born at 40 weeks, needing to stay in the neonatal ICU for 17 days due to pulmonary

infection, with Desbuquois Syndrome and hearing loss since birth. The patient's mother denies alterations during the prenatal period and family history of hearing loss. The patient started using hearing personal sound amplification device at 8 months of age, without adaptation. Does not verbalize any words, only misunderstood sounds, communicates through gestures. She presented the diagnosis of Desbuquois Syndrome through a genetic test, and is being followed up at the otology service of Hospital Angelina Caron due to profound bilateral hearing loss, diagnosed by the brainstem auditory evoked potential.

**Conclusion:** It is believed that there is a relationship between hearing loss and Desbuquois syndrome, but further studies are needed for the clinical correlation.

#### 10560 Bisphosphonate-related osteonecrosis of the jaw in a patient with Sjögren's syndrome

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**Introduction:** Antiresorptive agent-related osteonecrosis of the jaw is an uncommon complication in patients taking bisphosphonates, usually after tooth extraction. Its etiology is unclear and multifactorial. Some genetic associations have recently been identified and may have possible implications for patients with primary Sjögren's syndrome, increasing their risk of developing osteonecrosis by pharmacogenetic modulation.

**Objectives:** To present a case of bisphosphonate-related osteonecrosis of the jaw in a patient with Sjögren's syndrome and discuss the possible correlation between these diseases.

**Resumed report:** A 53-years-old female with Sjögren's syndrome using alendronate 70 mg/week for osteoporosis for 3 years was referred due to an 8-month evolution of a mandibular fistula after tooth extraction. She had previously undergone four debridement procedures and used multiple antibiotics without improvement. Physical examination revealed an ulcerative lesion in the left mandibular first molar region, with perilesional edema and a fistula draining purulent secretion. Cone-beam tomography suggested chronic osteomyelitis or osteolytic lesion. Suspecting of osteonecrosis of the jaw, alendronate was discontinued, and the patient was referred to a maxillofacial surgeon. A successful treatment with debridement, antimicrobial photodynamic therapy, amoxicillin, metronidazole, pentoxifylline and tocopherol was completed.

**Conclusion:** A growing number of reports indicate a molecular association between bisphosphonate-related osteonecrosis of the jaw and Sjögren's syndrome. It is important to be aware of this unknown and misdiagnosed entity to include osteonecrosis in the differential diagnosis. High clinical suspicion is crucial to initiate prompt treatment, reducing morbidity and potential complications.

**Keywords:** bisphosphonates, jaw, osteonecrosis, Sjögren's syndrome.

#### 10561 Laryngomucocele and laryngeal carcinoma: Case report

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**Introduction:** Laryngomucocele is an abnormal dilatation of the sacculus of the Morgani ventricle of the larynx. It is classified as internal when it expands medially, reducing the supraglottic space. Laryngomucocele occurs when this cavity is filled with mucus. Its etiology remains uncertain. Conditions with higher laryngeal intraluminal pressure favor its genesis, as chronic cough, glass blowers, laryngeal carcinoma. Considering that laryngomucocele can lead to respiratory failure due to laryngeal obstruction or be associated with laryngeal carcinoma, knowing this nosological entity allows for an active search, accurate diagnosis and early intervention.

**Objective:** To document a case of laryngomucocele associated with laryngeal carcinoma in situ, enriching the medical

literature and reinforcing the importance of this diagnosis and its implications.

**Case:** Male patient, 66 years old, in otorhinolaryngological follow-up due to bilateral type 2 cordectomy for high-grade dysplasia. He complains of choking, pharyngeal globus and cough for a month, in addition to a left cervical nodule, not palpable on physical examination. Videolaryngoscopy shows bulging of the left supraglottis. Neck tomography suggests 25mm left internal laryngomucocele. We opted for marsupialization of the lesion with laser, which was satisfactory, and a biopsy of the left vestibular fold showed carcinoma in situ. Patient referred to the head and neck surgery team.

**Conclusion:** The association between laryngoceles and laryngeal carcinomas is well documented. Even in the absence of other findings suggestive of neoplasia, this diagnosis should always be considered, as it can be decisive when determining a curative rather than palliative treatment.

**Keywords:** laryngomucocele, laryngocele, laryngeal carcinoma.

#### 10562 Dysphagia as the first symptom of Myasthenia Gravis: Case report

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**Introduction:** Dysphagia is a common complaint in the daily life of otolaryngologists. But it is also a possible symptom of neurological diseases, such as Myasthenia Gravis, which is an autoimmune disorder whose motor endplate is affected, producing episodes of progressive and fatigued muscle weakness that improve with rest. The most common initial symptoms are eyelid ptosis and ocular muscle paresis, but it can affect any voluntary innervated muscle, leading to varied symptoms such as dysarthria, dysphagia and limb paresis.

**Objective:** To demonstrate the importance of the differential diagnosis of dysphagia symptom.

**Case report:** OS, 73 years old, male, complaining of masticatory fatigue and high dysphagia that appeared and worsened during the meal for 30 days. No other complaints. Nasofibroscope without pathological findings. Normal skull and neck resonance. During investigation, he evolved with lagophthalmos and dysarthria. Electromyography suggestive of involvement of the motor endplate showing Myasthenia Gravis. Referred for joint follow-up with fonoaudiology and neurology, with partial control of symptoms.

**Conclusion:** Despite not being the most common symptom, dysphagia can appear as the first symptom of Myasthenia Gravis. Therefore, it is important to consider this pathology in patients with dysphagia, especially when associated with other paresis. This report encourages the scientific community to consider less frequent causes of this symptom, thus increasing its diagnostic accuracy and therapeutic precision, avoiding serious conditions such as Myasthenic Crisis that can lead to death.

**Keywords:** dysphagia, myasthenia gravis, autoimmune.

#### 10567 Challenges in the treatment of Killian polyps

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**Introduction:** Killian polyps or antrochoanal polyps are benign lesions, usually unilateral and affect more children and young adults. The lesion usually originates in the maxillary sinus, crosses the sinus ostium and reaches the nasal cavity, rhinopharynx, and may reach the oropharynx.

**Objectives:** To show a patient with Killian polyp who underwent endoscopic nasal surgical treatment with good outcome. Expose the difficulties that can be encountered at the time of surgery.

**Resumed report:** A patient was referred to the Otolaryngology ambulatory with intense nasal obstruction. He presented a polyp

involving the entire right nostril. Computed tomography of the facial sinuses showed a polyp in the right maxillary sinus, nasal cavity, and rhinopharynx with obliteration of the right nostril. Endoscopic surgery with septoplasty, polypectomy and right maxillary antrostomy approach were performed. The polyp was partially excised through the right nasal fossa and completed through the oral cavity. After removal of the polyp, the sphenopalatine artery was ligated due to continuous bleeding in its topography. The patient evolved well, with total improvement of nasal obstruction, and the anatomopathological result confirmed the hypothesis of Killian polyp.

**Conclusion:** In Killian polyp a good clinical evaluation associated with videonasofibroscopy and computed tomography is necessary. Even with careful surgical approach there is a possibility of recurrence. Early diagnosis reduces morbidity and allows a surgical approach with greater chances of definitive success.

#### 10570 Rare inferior laryngeal nerve variant: Non-recurrent laryngeal nerve and its risks in thyroidectomies, case report

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**Introduction:** The inferior laryngeal nerve or recurrent laryngeal nerve (RLN) is a branch of the vagus nerve. Which is responsible for the motor innervation of the intrinsic muscles of the larynx. Due to its close relationship with the thyroid organ and its long path, it can be injured during cervical surgeries, such as thyroidectomies and parathyroidectomies.

**Objectives:** In this study we will report a case of this rare recurrent laryngeal nerve anomaly, associated with the presence of aberrant or lusorial right subclavian artery. Correlating the current literature with the reported case and demonstrating the embryological, anatomical and clinical changes resulting from this rare variant.

**Resumed Report:** SM, 55 year-old female, hypertensive and diabetic, born in Rio de Janeiro, benefited from the Head and Neck Surgery service of the Army Central Hospital in 2019, complaining of dysphagia and presence of a nodule in the cervical region, suspicion for malignancy for indicated total thyroidectomy. During the dissection to identify the right recurrent laryngeal nerve, it was detected that it was not recurrent, emerging directly from the vagus nerve to the larynx. Chest angiogram showing Right subclavian artery originating from the aorta artery after the origin of the left subclavian artery, and with a retroesophageal course, characterizing the anatomical variant of aberrant or lusorial right subclavian artery.

**Conclusion:** The recurrent laryngeal nerve is an anatomical structure that needs attention during cervical surgeries, due to its long path and its variations. More thorough evaluations in certain preoperative patients may reveal information about the possibility of these nerve abnormalities.

#### 10574 Cavernous hemangioma in nasal bone

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**Introduction:** Bone hemangiomas are benign tumors of unknown etiology, slow growing and more common in the skull and vertebrae. They have three main subtypes: capillary, cavernous and mixed. The cavernous type is the most associated with the lateral wall of the nasal cavity or the inferior turbinate.

**Objective:** To report a rare case of involvement of the nasal bone by cavernous hemangioma.

**Case report:** CBM, female, 74 years old, denies comorbidities and traumas. The patient came to the clinic complaining of bulging in the right nasal dorsum for 2 years, slow growth, mild local pain on palpation, no nasal complaints. On physical examination, he presented a rounded lesion, adhered to the deep planes, located in the nasal dorsum to the right, without phlogosis, with an approximate diameter

of 1 cm. Computed tomography of the paranasal sinuses showed a hypodense expansive lesion in the right nasal bone, associated with bone destruction. Nasofibroscopy without changes in the lesion topography. She underwent partial removal of the lesion through an external access. Surgical specimen was sent to the pathological examination, which showed a lesion with a pattern of cavernous hemangioma. Due to the benign nature and slow growth of the disease, clinical-radiological follow-up was chosen.

**Conclusion:** This case reinforces data found in the literature about this bone tumor of rare location, characterized by its slow, unilateral growth, evolving possible nasal deformity. Complementary imaging exams contribute to diagnostic suspicion and surgical planning, however, only the pathological exam provides the diagnosis.

#### 10576 S-point: the importance of topodiagnosis of severe epistaxis

Larissa Silveira Pereira, Diogo Barreto Plantier, Fatima Regina Abreu Alves, Raquel Gonçalves Bessa, Henrique de Almeida Friedrich, Jersica Ferreira de Araújo, Marco Túlio Solano Matos

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**Introduction:** Epistaxis is the main otorhinolaryngological emergency. An arterial vascular pedicle in the superior portion of the nasal septum, around the axilla projection of the middle turbinate, posterior to the septal body was named the Stamm's S-point and it is responsible for recurrent and severe epistaxis.

**Objective:** To describe a case of epistaxis with topodiagnosis at the S-point and reinforce the importance of evaluating this area.

**Case report:** VFN, 63 years old, female, hypertensive, with a history of bilateral deep venous thrombosis, admitted to the intensive care unit, with orotracheal intubation, due to extensive ischemic stroke in the right hemisphere. She evolved with epistaxis originated from the right nasal cavity, without resolution after the first attempt of treatment. It was requested evaluation of otorhinolaryngology. The patient had an anterior tamponade using gauze and controlled blood pressure, but she kept bleeding. At oroscopy, it has seen blood. At rhinoscopy, left nasal cavity without signs of bleeding. The right nasal cavity was bleeding and the tampon was removed. After cleaning, topical vasoconstrictor and transamin were used and the bleeding point was visualized in the S-point region. Epistaxis was interrupted after use two MeroCel® and Surgicel® in the anterior tamponade. She presented a satisfactory therapeutic response, with no recurrence of epistaxis during hospitalization.

**Conclusion:** The importance of S-point as topodiagnosis of bleeding is notorious. It reinforces the understanding in the scientific community and foment more precise practices, reducing morbidity and mortality of epistaxis.

#### 10586 Vallecular cyst in newborn – A case report

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**Introduction:** Laryngeal cysts are rare in children, however they can cause important compressive symptoms and airway threat depending on location and size.

**Objectives:** To report a case of an infected laryngeal cyst in a newborn.

**Resumed report:** A newborn female patient with 2 days of life presented tiredness during feedings, with sporadic pauses and choking. She evolved at 2 weeks of life with progressive worsening of these symptoms and the appearance of stridor, choking with cyanosis and discomfort during agitation. Chest X-ray showed image suggestive of aspiration. Nasolaryngoscopy was performed: a mass was seen in the topography of the left vallecule, also affecting the left aryepiglottic fold. Contrast-enhanced cervical computed tomography showed the presence of a laryngeal cyst in the topography of the left vallecule, with clinical signs suggesting an infected laryngeal cyst. Direct laryngoscopy was performed in the operating room with excision of a



cystic lesion in the left vallecule. After that, a persistence of bulging in the left lateral wall was noted, also with a cystic appearance. Incision and marsupialization were performed, with an outflow of hyaline secretion. Anatomopathological analysis of the material sent from the cystic capsule showed a fragment of Malpighian mucosa showing a neutrophilic inflammatory infiltrate.

**Conclusion:** Although rare, laryngeal cysts can result in airway obstruction and serious complications in infants, therefore this pathology should be considered as a differential diagnosis in cases of children with dyspnea and stridor.

**Keywords:** laryngeal cyst, stridor, vallecule cyst.

#### 10589 Sleep disorders during the pandemic caused by SARS-CoV-2: A Review

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**Introduction:** The pandemic caused by SARS-Cov-2 has caused serious impacts on the mental health of individuals, in addition to changes in timekeepers and reduced exposure to sunlight, interfering with the circadian cycle and altering sleep quality.

**Objectives:** To analyze the influence of the pandemic caused by SARS-CoV-2 on the quality of sleep of individuals.

**Data Synthesis:** 11 articles were analyzed, in English and Portuguese, using the descriptors "sleep quality" and "pandemic", in the Pubmed databases, with filters of works published in 2020 and 2021. Studies have shown an increase in later bedtime and waking time, a reduction in night-time sleep, an increase in day-time napping, awakenings, insomnia and a marked increase in sleep disturbances. Three studies indicated female gender, young age, absence of work during isolation, single individuals and students as risk factors for sleeping difficulties. Another study pointed out that more rigorous isolation and domestic conflicts in this period are related to poorer sleep health, while older age, male gender and developed countries are associated with better sleep quality. Five of the studies found a relationship between poor sleep health and anxiety and depression.

**Conclusion:** The pandemic does not uniformly affect all individuals, but there is a clear association with the increase in psychological distress and sleep disorders. Thus, practices to deal with the pandemic can help improve sleep quality, acting, in the long term, in preventing or reducing bad effects on sleep.

**Keywords:** sleep quality, sleep disorders; pandemic; SARS-CoV-2.

#### 10594 The relationship between tinnitus and cochlear implant: A review

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**Introduction:** Tinnitus is a frequent complaint in patients with acquired hearing loss. Pathophysiology is characterized by GABAergic disinhibition in the ascending auditory pathway, responsible for the stochastic resonance at the level of the dorsal cochlear nucleus and dysregulation in the frontostriatal and limbic regions. Thus, cochlear implants (CI) can be useful for suppressing tinnitus through electrical stimulation of the auditory nerve and the rapid conduction pathway.

**Objectives:** Evaluate the role of CI in suppressing tinnitus in patients with hearing loss.

**Data Synthesis:** In a search in Pubmed, with the descriptors "cochlear implant and tinnitus", 9 articles in English, from the last three years, that directly addressed the subject, were analyzed. CI presents a new treatment perspective for the suppression of tinnitus in individuals with acquired hearing loss. This is explained by the regulation of the fast conducting pathway, in the stimulation of the auditory nerve. Studies

have shown a subjective and significant reduction in tinnitus perception, especially in patients with sudden unilateral loss and concomitant severe tinnitus, providing a better quality of life. Individual programming of the CI is strictly necessary, taking into account the characteristics of tinnitus. Thus, regular adjustments, type of implant, electrode position and other parameters are considered, which translates into essential individual counseling for the patient.

**Conclusion:** In suitable candidates, CI can be a good strategy for tinnitus suppression. It is necessary to know the individual characteristics of the patient for the implant installation to be effective.

**Keywords:** tinnitus; cochlear implant; audition; quality of life.

#### 10596 Fungal rhinosinusitis in a patient with chronic nasosinusal infection: Case report

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**Introduction:** Nasosinusal fungal disease can be basically divided into two types: non-invasive and invasive. The non-invasive group affects patients without compromise of the immune system and the invasive form is found in patients with some type of immunosuppression or decompensated diabetics. The fungal ball (BF) consists of a dense extra-mucosal tangle of hyphae, in different stages of decomposition.

**Objectives:** The aim of this article is to report a case of fungal ball in the ethmoidal and sphenoid sinus in a patient seen at the Otorhinolaryngology service of the Hospital Central do Army.

**Resumed report:** L.S.S, 35 years old, female, active military, from Resende and born in Rio de Janeiro-RJ. History of left nasal obstruction for about 1 year and episodes of epistaxis and cacosmia for about 1 month. Her nasal videoendoscopic exam showed a lesion with a purplish appearance in the left nasal cavity, preventing a 0° optical progression through this nasal cavity, the right nasal cavity did not show signs of injury and the inferior, middle and cavum meatus were free. Exeresis of the lesion by endoscopic endonasal approach was indicated. The result of the anatomopathological study was chronic inflammatory tissue and the culture showed *Aspergillus* sp.

**Conclusion:** Fungal ball is an uncommon condition, but its incidence has been increasing in our environment. The clinical picture is nonspecific, requiring a high degree of suspicion from the otorhinolaryngologist. Imaging exams are important for diagnosis and surgical programming. Fungal ball treatment is surgical and the prognosis is very favorable, with infrequent recurrences.

#### 10597 Epidemiological study of congenital hearing loss in newborns with suspected Zika virus infection

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**Introduction:** Zika virus (ZIKV) transmission is caused by *Aedes aegypti*, and non-human primates can also play the role of hosts. Other forms of transmission include perinatal, sexual intercourse, transfusion and breastfeeding, in addition to vertical transmission, caused by gestational infection and which can lead to Congenital Zika Syndrome (CSZ). CSZ is associated with morphological changes of the head in newborns, with partially collapsed skulls, thin cerebral cortices, seizures, polymicrogyria, subcortical calcifications, as well as host to somatic abnormalities such as hypertonía, limb contracture, arthrogryposis, altered craniofacial proportions, spasms, irritability, swallowing problems and hearing loss (HL). Among the many etiologies of hearing loss, viral infection of the auditory system is also implicated as an underlying causal factor. The first reports of children with congenital ZIKV syndrome (CSZ) estimated a rate of 6% to 9% HL, compatible with other viral causes of congenital hearing loss, although the prevalence needs to be better studied.

**Methods:** Cross-sectional infection of Zika Virus began to be documented in 2015 in Brazil after observation of cases of microcephaly in infants. Among the possible sequelae of this infection in babies, hearing disorders have been documented. The present retrospective

epidemiological study evaluated 788 cases with suspected SCZ, born at the University Hospital of the Faculty of Medicine of Jundiaí between 2015 and 2020. The data were statistically analyzed.

**Results:** This study presents a descriptive analysis of the epidemiology of hearing loss in 788 newborns with suspected SCZ and association with family risk factors.

#### 10600 Melanoma in nasosinusal cavity: Case report

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**Introduction:** Primary melanoma of the nasal cavity and paranasal sinuses is a rare and aggressive tumor, with increasing incidence in recent years, especially in women. It represents 0.5 to 2% of malignant melanomas and approximately 4% of tumors of the nasosinusal region.

**Objectives:** To report a case of primary melanoma of the nasosinusal cavity, given the rarity of this pathology in this location.

**Resumed report:** 55-year-old female patient, melanodermic, presented at the otorhinolaryngology emergency department complaining of left nasal obstruction and ipsilateral facialgia for 60 days. She reported previous antibiotic therapy and analgesia without improvement of symptoms. Then developing left orbital pain and left monocular diplopia one day ago. Physical examination revealed left periorbital edema and ocular mobility with restricted left lateral deviation. Anterior rhinoscopy revealed polypoid degeneration in inferior turbinate of the left nasal fossa. Tomography and magnetic resonance imaging of the skull and paranasal sinuses showed an expansive formation on the left ethmoid extending to the nasal fossa, sphenoid sinus and cavernous sinus at left. Bone erosion was present, including the bony borders with skull base in correspondence. She was submitted to biopsy and immunohistochemical study that showed amelanotic melanoma. Therefore, being referred to oncology, where she continues under treatment with immunotherapy.

**Conclusion:** This pathology usually affects elderly individuals and diagnosis is often delayed by late nonspecific symptoms. The most common manifestations being unilateral nasal obstruction and epistaxis. For that reason we reiterate the importance of early diagnosis, so that it can indicate better prognosis for the patient.

#### 10602 Laryngeal candidiasis in an immunocompetent patient

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**Introduction:** People with compromised immune systems are more likely to develop laryngeal candidiasis. Another risk factor is the use of inhaled corticosteroids and lack of oral hygiene. When empirical treatment of gastroesophageal reflux disease does not work, fungal infections beg the question.

**Objective:** To report a case of laryngeal candidiasis in an immunocompetent patient and warn otolaryngologists to keep this hypothesis in mind, despite its low prevalence.

**Report resumed:** ERSS, 66 years old, smoker, uses inhaled corticosteroids to treat chronic obstructive pulmonary disease. The patient complained of odynophagia, pharyngeal globe, chronic cough, epigastric pain, heartburn and dysphonia for one month, referred due to refractoriness of symptoms to initial empirical treatment with a proton pump inhibitor. Upon oroscopy, she had a lingual coating, palate pillars, tonsils, and lesion-free posterior wall. Videolaryngoscopy showed: epiglottis, vallecula, vocal folds, inter and retroarytenoid and piriform areas with leucoplastic spots, mild diffuse hyperemia and edema in inter and retroarytenoid areas. Thus, empirical treatment was started with nystatin, fluconazole and pantoprazole for 30 days, in addition to laboratory tests. Immunosuppression was not found. After 30 days, the patient returned, with improvement in symptoms. Normal control videolaryngoscopy.

**Conclusion:** Laryngeal candidiasis in immunocompetent patients is uncommon and some factors may have contributed to this fact, such as the use of inhaled corticosteroids and lack of oral hygiene. This case has the important mission of recalling a common diagnosis in clinical practice, and that its diagnosis is often postponed for not carrying out an adequate investigation.

#### 10607 Bilateral silent sinus syndrome: A case report

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**Introduction:** Silent sinus syndrome is a rare, often unilateral, clinical entity characterized by chronic asymptomatic maxillary sinus atelectasis. The etiopathogenesis is not well established, however, it is believed that obstruction of the ostiomeatal complex induces a continuous and progressive negative pressure within the ipsilateral maxillary sinus, with subsequent antral collapse.

**Objectives:** Report a case of bilateral Silent Sinus Syndrome diagnosed at the Rhinology ambulatory care service of the Otolaryngology service of the Hospital das Clínicas de Pernambuco.

**Resumed report:** Female patient, 45 years old, without previous comorbidities, sought the Otolaryngology service reporting intermittent nasal allergic symptoms, occasional frontal bilateral headache and unilateral anosmia vehemently reported on the left. Treatment with corticosteroid nasal was prescribed and home environment cleaning and requested a computed tomography scan to discard chronic frontal sinusitis. After one month of treatment, the patient reported partial improvement of symptoms and the sinus computed tomography scan evidenced uncinat process bilaterally adhered to the papyraceous blade and bilaterally maxillary veiling. No orbital alterations in the computed tomography scan or ectoscopy. Nasal endoscopy showed bilaterally an intact and lateralized maxillary medial wall; the other nasal structures were normal.

**Conclusion:** Due to its oligoasymptomatic character, the diagnosis of Silent Syndrome Syndrome is usually accidental, through facial computed tomography scans. Reports of bilateral involvement are scarce in the literature. Treatment consists of restoring aeration of the affected sinus through uncinectomy and endoscopic maxillary antrostomy.

#### 10609 Sigmoid sinus thrombosis secondary to chronic otitis media – a case report

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**Keywords:** Sigmoid Sinus Thrombosis, Chronic Otitis Media, intracranial complications.

**Introduction:** Sigmoid sinus thrombosis (SST), although rare in the antibiotic era, is an intracranial complication of chronic otitis media (COM), with high morbidity and mortality when not correctly managed. Its consequences may occur due to contiguity or vascular proximity, leading to venous thrombosis.

**Objectives:** To report a case of sigmoid sinus thrombosis secondary to chronic otitis media.

**Abstract report:** A 18 years-old male patient, with a previous history of COM, presented at our Clinic with otalgia and suppurative otorrhea associated with holocranial headache lasting 3 days, without relief with the use of medications. Magnetic resonance imaging and angiography showed thrombosis in the left transverse and sigmoid sinuses, as well as in the proximal portion of the internal jugular vein on this side. A secretion culture was also performed with no growth of microorganisms. The patient was submitted to a surgical approach with simple mastoidectomy, canaloplasty and incus interposition on the eighth day of symptoms, with removal of material compatible with cholesteatoma. In addition, antibiotic therapy was adopted for 14 days and full anticoagulation for 6 months.

**Conclusion:** It was observed in the literature that COM rarely evolves with intracranial complications, however it can be catastrophic. Therefore, early diagnosis and surgical treatment to avoid complications is priority.

#### 10610 Chronic otitis media associated with cholesteatoma and retroauricular fistula: A case report

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**Introduction:** Chronic otitis media is very common condition. Cholesteatoma is characterized by a squamous epithelium accumulation in the middle ear, but secondary bacterial infections can occur.

**Objectives:** To report a case of chronic otitis media associated with cholesteatoma and retroauricular fistula.

**Resumed report:** J.A.P.S., 10, student. Patient with purulent otorrhea and otalgia in the right ear associated with edema and redness in the ipsilateral retroauricular region since 2014 seeking non-resolving medical care. On 04/19/21, he sought medical care again and a computerized tomography focusing on the right mastoid region showed evidence of local veiling. He was transferred to the Hospital Universitário Júlio Muller on 04/23/21 for evaluation of surgical feasibility and being hospitalized. The otorhinolaryngological exam showed the presence of purulent secretion in the right ear canal with visualization of the opacified tympanic membrane after aspiration and presence of an ipsilateral retroauricular cutaneous fistula. Swab collections being carried out and the presence of *Proteus mirabilis* was confirmed. A right mastoidectomy was performed on 04/23/2021 with the presence of cholesteatoma tissue in the attic and granulomatous tissue in the middlebox and eroded ossicular chain with disjunction. The patient was discharged 10 days after the procedure and treated with ciprofloxacin, It was recommended 21 days of antibiotic therapy.

**Conclusion:** Chronic otitis media associated with cholesteatoma usually requires surgery, especially when there is a fistula, showing good results in the postoperative period. Outpatient follow-up is necessary for better evolution.

**Keywords:** cholesteatoma; retroauricular fistula; chronic otitis.

#### 10613 Langerhans cell histiocytosis in mastoid. A treatments option

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**Introduction:** Langerhans Cell Histiocytosis is a rare disease whose etiology is still unknown. It is known that it is an infiltrative disease, considered by some authors as a neoplasm, being more common in children. Histiocytosis can affect any organ, where the most affected are: skin, lymph nodes, lungs, thymus, liver, spleen, bone marrow and central nervous system. When the disease affects bone structures, it is common to promote lytic lesions, and is called Eosinophilic Granuloma.

**Objectives:** The present work aims to present a case of Langerhans Cell Histiocytosis in mastoid, as well as the proposed treatment.

**Case report:** HRPB, thirteen years old, male, with severe retroauricular pain for 5 days, associated with soft local edema. No fever, normal vital signs and no laboratory abnormalities and normal otoscopy. Mastoid computed tomography: "soft tissue density content filling left mastoid cells and a erosive bone lesion". It was chosen to perform a mastoid lesion debridement on the left. The anatomopathological exam showed the presence of histiocytic cells with vascular proliferation and inflammatory cells between them.

Immunohistochemistry, presence of CD1a and CD207 on cell surface, providing diagnosis of Histiocytosis Cell Langerhans. The patient was referred for oncology evaluation who initiated chemotherapy seasons. So far, good clinical results have been observed.

**Conclusion:** The present work shows that exclusive chemotherapy can be a good treatment option for langerhans cell histiocytosis in the mastoid in the pediatric population.

**Keywords:** histiocytosis, chemotherapy, mastoid.

#### 10615 Unusual location of pleomorphic adenoma in the nasal cavity: A case report

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**Introduction:** The most common tumors of the main salivary glands are pleomorphic adenomas, but they rarely occur in the respiratory tract, through minor salivary glands. Although most of these glands are in the lateral nasal wall, pleomorphic adenomas originate mainly from the nasal septum. The typical presentation includes nasal obstruction and epistaxis, and occasionally nasal bulging, epiphora, and rhinorrhea. Wide local resection with free margins is the treatment of choice. Postoperative radiotherapy is recommended in residual disease. Occasionally, pleomorphic adenoma behaves malignantly, the most common variant being carcinoma ex-pleomorphic adenoma.

**Objectives:** To report a case of pleomorphic adenoma in a patient with unilateral nasal tumor.

**Resumed report:** F.R.F.S., 28 years old, female, complaining of unilateral nasal obstruction and epistaxis for 3 months. Upon examination, we observed a bulging nasal pyramid and a lesion occupying the anterior region of the left nasal cavity, with a vascularized and nodular appearance. The patient had no palpable cervical masses. Computed Tomography of the paranasal sinuses revealed a hypodense, homogeneous nodular formation, with regular contours, without post-contrast enhancement, measuring 1.5x1.5cm. An excisional biopsy was performed, compatible with a pleomorphic adenoma, without a focus of malignancy and with free resection margins. After 5 years, the nasal endoscopic examination has not revealed recurrence.

**Conclusion:** Pleomorphic adenomas are rare nasal cavity tumors. We suggest considering this diagnosis in patients complaining of unilateral nasal obstruction or epistaxis. In view of the potential for recurrence, long-term follow-up with nasal endoscopic examination is necessary.

**Keywords:** pleomorphic adenomas, nasal tumor, rhinology.

#### 10616 Endoscopic approach for dysphonia and glottic stenosis after laryngeal trauma

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**Introduction:** Laryngeal trauma due to firearm, stab accidents or after orotracheal intubation, generally complicates with subglottic stenosis. Previous laryngeal surgery and prolonged intubation are common causes. Through the classification of trauma by the degree of tissue involvement, the approach technique (open or endoscopic) is chosen, and there is no consensus about it.

**Objectives:** To report a case of endoscopic approach for laryngeal stenosis and dysphonia after gunshot trauma and orotracheal intubation.

**Resumed report:** M.R.O., male, 40 years old, presented dyspnea, progressive dysphonia, dysphagia after a gunshot wound in the cervical region, orotracheal intubation and tracheostomy 6 months ago. He presented tomography with tortuosity of the air column and nasofibroscope with vocal cord synechia and 90% obstruction

of the lumen. Exeresis of the synechia, despite clinical improvement in nasofiberscopy, showed immobility of the right arytenoid and synechia totally collapsing the vocal cords. Posterior cordotomy was performed with laryngeal scalpel and cauterization, partial right arytenoidectomy with laryngeal scalpel, progressing with significant vocal improvement and without dyspnea, maintaining tracheostomy. After 2 months with video examination showing reduced light in the subglottic and glottic region, he was referred for head and neck surgery to evaluate cervicotomy.

**Conclusion:** Due to the lack of consensus on techniques, a study is needed that seeks to establish the one most effective, aiming to improve the life quality of patients and reducing recurrence. The endoscopic approach to the case proved to be a good option for being less invasive and improve significantly dysphonia.

**Keywords:** laryngeal trauma, firearm, orotracheal intubation.

#### 10618 Cyst on the laryngeal face of the epiglottis: A case report

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**Introduction:** Benign and malignant tumors of epiglottis are rare and little described in literature. They are slow-growing lesions and poorly symptomatic, which makes their diagnosis difficult.

In this case, the epiglottis cyst was found endoscopically on laryngeal face and removed under direct view by micro laryngeal surgery.

**Objective:** The purpose of this work is to report a rare case of a laryngeal epiglottis cyst that was surgically removed under direct view.

**Resumed report:** Patient ECV, female, 62 years, white admitted in the emergency room of Presidente Prudente regional hospital with the complaint of "strange body in the throat". The symptom began after the ingestion of fish. At the time, he denied dyspnea, dysphonia, dysphagia and stridor. She was submitted to flexible videolaryngoscopy which identified a cystic, light color and bright sessile lesion on the laryngeal face of the epiglottis. The injury was in the middle line and did not occlude the glottis. The patient was followed out in the outside, but evolved with complaints of dysphagia and dyspnea in the subsequent months and was submitted to micro laryngeal surgery to remove the injury. The surgical procedure happened without intercourses and it was possible to remove the entire injury. The histopathological report revealed the diagnosis of cyst.

**Conclusion:** Epiglottis tumors are rare, especially benign, and little symptomatic, which delays the diagnosis. Thus, as soon as identified must be closely followed or surgically removed to avoid complications.

**Keywords:** cyst, epiglottis, larynx.

#### 10620 Post-radiotherapy oral candidiasis: An atypical presentation

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**Introduction:** Oral candidiasis is the most prevalent opportunistic infection related to antineoplastic chemotherapy and radiotherapy.

**Objectives:** To report a case of a male patient, after radiotherapy, who appeared atypically with a granulomatous lesion in the oropharynx and hyperplasia of the gingival mucosa associated with erythematous lesions with whitish plaques on the hard palate.

**Resume Report:** Patient with a history of tongue edge SCC treated surgically and with radiotherapy adjuvant. Evolved with hyperplasia of the hard palate mucosa and upper gingiva associated with a granulomatous lesion, hyperemic and non-ulcerated, and

whitish plaques. Biopsy was performed with the result of inflammatory papillary hyperplasia. Afterwards, treatment was started with Nystatin for 3 consecutive weeks of Fluconazole for 30 days and, finally, Daktarin gel for 15 days. Achieve important reduction of hyperplasia and complete remission of granulomatous and hyperemic lesions.

**Conclusion:** Oral candidiasis is a very common clinical condition in patients with cancer in anticancer treatments. However, this atypical presentation calls our attention and becomes extremely important without a differential diagnosis with neoplastic recurrences or new tumors.

**Keywords:** gingival hyperplasia, granulomatous lesion, oral candidiasis, radiotherapy.

#### 10624 Infraorbital Non-hodgkin lymphoma with atypical presentation: A case report

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*Hospital Angelina Caron*

**Introduction:** Lymphomas are lympho-proliferative tumors with predominant involvement of nodal/lymphatic sites with potential for hematogenous dissemination and involvement of extranodal sites. Orbital involvement is rare, and corresponds to approximately 1 to 8% of all non-Hodgkin lymphomas.

**Objectives:** To report a case of non-Hodgkin's lymphoma with infraorbital location treated at Hospital Angelina Caron.

**Data Synthesis:** J.S. was seen at the ENT outpatient clinic with progressive enlargement of the left infraorbital region for 2 months. The patient presented with a mass of fibroelastic consistency, multilobulated and painless on palpation, located in the left infraorbital region, with extension to the supraorbital region on the same side. Skull MRI was requested for diagnostic complementation. The exam showed the presence of an expansile and infiltrative lesion centered in the left infrapalpebral region, measuring 26 x 20 x 13 mm (LL x AP x CC), with lobulated and well-defined contours, extending into the orbit, obliterating the extrachannel adipose space. A surgical biopsy of the lesion was then performed through a left infraorbital incision, which revealed a yellowish, granular and elastic tissue with invasion into the underlying soft tissues. An anatomopathological examination of the specimen showed the presence of fragments of atypical lymphoproliferative process, suggestive of non-Hodgkin's lymphoma.

**Conclusion:** The rapid and progressive growth of masses located in the periorbital region should always lead the otorhinolaryngologist to suspect the presence of lymphoproliferative tumors. Non Hodgkin lymphomas become an important differential diagnosis for these masses. Early treatment is important in the outcome of the clinical picture.

#### 10625 Hearing loss and vestibular dysfunction post cryptococcal meningitis: A two-case report

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**Introduction:** Cryptococcus neoformans is an opportunistic fungus which infects humans through inhalation, is the most common fungal infection of Central Nervous System and is more prevalent in immunocompromised patients. Bilateral sudden dysacusia occurs up to 27% of cases, with rare reversibility, due to retrocochlear and, possibly, cochlear damage. As for vestibular damages, some authors reported integrity of the vestibular nerve although no conclusions were yet confirmed.

**Objective:** To report two cases of hearing loss and vestibular dysfunction post cryptococcal meningitis.

**Resumed report:** Two immunocompetent patients were referred to our otorhinolaryngology department due to history of episodic vertigo, disequilibrium and hypoacusis with onset after cryptococcal meningitis 2 year before, both were submitted to full



otorhinolaryngologic and audiologic evaluation. The 41-year-old male presented bilateral profound sensorineural hearing loss, absent otoacoustic emissions and low vestibulo-ocular reflex gain (RVO) on the Video Head Impulse Test (V-HIT), no anatomical abnormalities were detected on mastoid computerized tomography nor on skull magnetic resonance, with no signs of labyrinthitis ossificans, in view of these findings patient was elected as candidate for cochlear implantation and vestibular rehabilitation. As for the 43-year-old female patient, she presented a reduction of hearing threshold on frequencies 6000Hz and 8000Hz in the right ear and normal RVO gain on V-HIT, however, on skull magnetic resonance alterations suggestive of infectious process in activity were detected. Continuous audiologic monitoring was recommended. Both patients presented no nystagmus nor saccades during its research.

**Conclusion:** These cases are worth reporting due to the variability of presentation after cryptococcal meningitis.

#### 10626 Wegener's granulomatosis and late diagnosis in an elderly patient - case report

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**Introduction:** Wegener's granulomatosis is a long-term disease and should be suspected in patients with multisystem inflammatory involvement, especially of the respiratory and renal systems. It is a granulomatous necrotizing vasculitis and can be present with sinusitis, rhinorrhea, mucous ulcers and nasal crusts.

**Objectives:** To describe a case of Wegener's granulomatosis in an elderly patient.

**Resumed report:** Male, 75 years old, complaining of progressive nasal obstruction that had evolved in the last 10 years with the formation of chronic nasal crusts. Denies facial pain, sneezing, epistaxis, and nasal itching. On physical examination, he shows blood crusts in the anterior septal region, with septal perforation in Cottle's areas 3 and 4, and atrophic mucosa. In the laboratory investigation, FAN was evidenced: 1/160 (Nuclear antibodies, chromosomal metaphase plate); search for non-reactive VDRL and Leishmania IgG and IgM; Reactive rheumatoid factor. Septal biopsy showed a granulomatous inflammatory pattern. The patient was followed up on an outpatient basis and started treatment with the rheumatology service, given the hypothesis of Wegener's granulomatosis.

**Conclusion:** It is important to emphasize that Wegener's Granulomatosis is a pathology that can present with numerous otorhinolaryngological symptoms. However, a thorough investigation is necessary for its diagnosis and the disease will not always present with all the expected symptoms.

#### 10627 Laryngeal granulomatosis due to miliar tuberculosis: A case report

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**Introdução:** Laryngeal granulomatous diseases have a difficult clinical diagnosis and may be related to neoplasms and polymorphic conditions with favorable evolution, if treated early.<sup>(1)(2)</sup> Larynx is a site rarely affected by tuberculosis, may be the initial manifestation of the condition and is related to another disease sites.

**Objetivos:** Emphasize the importance of early investigation and diagnosis in the face of granulomatous diseases of the larynx, as these are debilitating diseases, with potential for seriousness and that have effective treatment.

**Case report:** Male patient, 30 years old, salesperson, smoker, without comorbidities. Came to our service with odynophagia and dysphonia two months of admission. Laryngoscopy showed laryngeal region with edematous and infiltrated aspect. Complementary tests with negative results (c-ANCA, bacilloscopy, Mantoux, among others).

Histopathology with chronic inflammatory process and Langerhans giant cells. One month after the onset of the condition, he started to present daily fever and respiratory symptoms. Chest tomography was ordered and revealed multiple cavitations, in a miliary pattern. New sputum smear samples were requested, with a positive result. RIPE regimen (rifampicin, isoniazid, pyrazinamide and ethambutol) in ongoing evolution.

**Conclusão:** Due to the local epidemiological situation, it is imperative to suspect tuberculosis in laryngeal granulomatosis from the beginning of the condition. Other diseases, such as autoimmune and infectious ones, must also be investigated, qualified early and treated in a timely manner.

**Keywords:** larynx, granulomatosis diseases, tuberculosis.

#### 10629 Differential diagnosis for Downbeat nystagmus syndrome

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**Introduction:** Downbeat nystagmus (DBN) is one of the most frequent forms of nystagmus and, although the usual association with pathologies affecting the posterior fossa of the skull, the cause in majority of cases remains unknown. A 62-year-old female patient who reported continuous oscilopsia and mild unsteadiness for 2 year was attended in our service. Her neurotological examination found bilateral DBN, increasing with lateral and downward gaze-holding. Also, there was strong tendency to fall forwards at Romberg test and hesitant gait, without any other clinical abnormalities or neuroimage alterations. After investigation, the diagnosis of Downbeat Nystagmus Syndrome (DNS) were hypothesized and the initial clinical treatment with clonazepam was prescribed.

**Objectives:** Following the aforesaid case, we reviewed the literature for compatible possible differential diagnosis.

**Data Synthesis:** We searched in PUBMED/MEDLINE database for "downbeat nystagmus" and variations for publications in English in the last 10 years. 231 articles were found, which were selected based on their abstracts and 64 of them were chosen for review.

**Conclusion:** Numerous possible causes were found. Demyelinating and cerebrovascular pathologies, as well as lesions affecting the cranio-cervical junction and the cerebellum were the most common, but usually presenting neuroimage alterations or other findings. Other causes include metabolic disorders like thiamine deficiency and hypomagnesemia, or exposure to toxins such alcohol, antiepileptics and lithium. Besides, DBN can be related to Cerebellar Ataxia, among other autoimmune pathologies such Paraneoplastic Cerebellar Degeneration and Paraneoplastic Encephalitis. Moreover, there are rare genetic causes that could be correlated, but usually presented with other findings.

**Keywords:** downbeat nystagmus, downbeat nystagmus syndrome, cerebellar ataxia.

#### 10633 Mantle cell lymphoma in the left frontal sinus. A case report

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**Introduction:** Mantle cell lymphoma is a rare entity, responsible for 5-10% of all lymphoma, being more common in white men, diagnosed at around 68 years.

**Objective:** To report a case of mantle cell lymphoma in the left frontal sinus at the Otorhinolaryngology, Head and Neck Surgery Service - FAMERP - São José do Rio Preto.

**Resumed report:** A 71 year old man searched our service with a complain of a tumor in the front region, of progressive growth, associated with headache. He denied nasal symptoms. The physical

exam revealed a lump in the forehead with a hardened consistency. The nasal endoscopic exam revealed a purplish tumor that occupied the left middle meatus. The magnetic resonance images showed an expansive lesion with intense paramagnetic contrast enhancement, presenting epicenter in the left frontal sinus and expansive lesion involving the soft tissue planes in the bilateral frontal region. Was performed a transnasal and frontal biopsy with a histopathological exam showing a malignant neoplasm of small round blue cells with an area of necrosis. Immunohistochemistry revealed massive infiltration by hematopoietic neoplasia represented by cells with blastic appearance, immunophenotype B (CD20+) and co-expression of cyclin D1, being consistent with the diagnosis. Currently the patient is with CHOP proposal, undergoing a second chemotherapy cycle.

**Conclusion:** The head and neck lymphomas develop mostly in the Waldeyer ring region. The recognition and diagnosis of this pathology is important as it may present a more aggressive clinical course than other non-Hodgkin lymphomas.

**Keywords:** lymphoma, frontal sinus, Waldeyer ring.

#### 10634 Ototoxicity associated with the use of gentamicin: A case report

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Ototoxicity associated with the use of aminoglycosides is an example of iatrogenics, which can cause changes in the peripheral vestibular function and, to a lesser extent, can cause loss of hearing function. The incidence of gentamicin-associated ototoxicity ranges from 6-16%. This study aims to describe a case of hearing loss and bilateral vestibular alteration after the use of gentamicin. A 45-year-old female patient began to experience dizziness and imbalance, especially after moving her head, associated with nausea and vomiting, using betahistine dihydrochloride, with no improvement in symptoms. She reports having been medicated with gentamicin one week before the onset of symptoms to treat a urinary tract infection. She has migraine as a comorbidity. On physical examination, it presents an opaque tympanic membrane on the right and no changes on the left, no spontaneous and semi-spontaneous nystagmus; during clinical-HIT, presence of corrective saccades bilaterally, more evidente and with greater amplitude on the right, during head movement to the left, without nystagmus or dizziness during the Dix-Hallpike maneuver; presents audiometry with mild sensorineural hearing loss, with descending configuration on the right and hearing loss on the left in the frequencies of 3 and 4 KHz; presents with Type A curve tympanometry with stapedial reflexes present bilaterally ipsilateral, V-hit with bilateral vestibular hypofunction with corrective and uncovered saccades. The case reported together with literature data confirm the need for caution in the use of aminoglycosides, due to their potential risk of ototoxicity that can cause significant hearing loss and also peripheral vestibular hypofunction.

#### 10637 Supraglottitis in an adult patient, a case report

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**Introduction:** Supraglottitis is an acute infection of the supraglottic tissues as epiglottitis, aryepiglottic and arytenoid folds and valleculae. In the past, this disease occurred mostly in the pediatric population, but with the advent of the vaccine against *Haemophilus influenzae* type b, it became more common in adults, caused by other such as *Streptococcus*, *Staphylococcus* and *Pseudomonas*.

**Objectives:** Report a case of supraglottitis in an adult patient at the Otorhinolaryngology, Head and Neck Surgery Service – FAMERP – São José do Rio Preto.

**Resumed report:** A 28-year-old female patient came to the Otorhinolaryngology Emergency Room at FAMERP complaining of odynophagia that progressed to dysphagia and dysphonia. Patient reports updated vaccination history. The nasofibrosopic exam showed edema and hyperemia of the epiglottis, in addition to aryepiglottic folds, arytenoids, false folds and vocal folds. Antibiotic and intravenous corticotherapy were prescribed, with significant improvement in the patient's clinical condition. After the treatment, the patient returned to the consultation reporting a complete improvement of the condition and a new nasofibrosopic exam was performed, within the normal range.

**Conclusion:** Supraglottitis, due to edema and infection, can obstruct the airway and cause serious complications and even death if left untreated. The advent of the vaccine against *Haemophilus influenzae* type b changed the profile of patients, previously pediatric, to the adult population. Early initiation of treatment can change the prognosis of the disease.

**Keywords:** supraglottitis, *Haemophilus influenzae*, epiglottitis

#### 10639 Intratympanic Corticosteroid Injection: Our Experience

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The application of drugs through the tympanic membrane in the middle ear have had great advances in the 1990s, although there are reports since antiquity.

Anatomical and physiological advances, as well as more precise accesses via microscope or endoscopic, allowed the evolution of this technique.

Corticosteroid therapy has established itself in the medical literature and its administration routes are already strongly structured. Today, intratympanic therapy is used to treat various otological and otoneurological disorders, including sudden hearing loss (SHL), Ménière's Disease (MD), ototoxicity, tinnitus, autoimmune deafness, peripheral facial palsy, otitis media with effusion, perilymphatic fistula and vestibular schwannoma.

In this case, we present twelve cases from our service with application of a protocol based on a dosage of 0.5 to 0.7mL of intratympanic Dexamethasone, at a concentration of 4mg/mL, with a mean interval between applications of three days. Audiometry was recommended three days after the third application. In case of auditory gain, one or two new applications were performed.

Intratympanic therapy is a valid, accessible, fast, safe, low-cost and technically simple alternative. However, its most effective and best indicated use is in cases of sudden hearing loss, and this may also include refractory Ménière's Disease, either as initial or rescue therapy. Other applications without strong evidence need further investigation and studies for routine application.

#### 10641 Chiari I malformation presenting as gaze evoked multidirectional nystagmus: A case report

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**Introduction:** Chiari I Malformation is characterized by structural anomalies in cerebellar tonsils and its downward displacement below the level of the foramen magnum, clinically its symptoms start usually at early adulthood with an insidious presentation of hoarseness, vocal cord paralysis, dysarthria, palatal weakness, pharyngeal achalasia, aspiration, down-beating nystagmus, and sleep-related breathing disorders.

**Objective:** To report a Chiari I malformation presenting as gaze evoked multidirectional nystagmus.

**Resumed report:** A 61-year-old female patient was referred to the otolaryngology department with a 2-year history of bilateral

continuous non-rhythmic tinnitus and episodic short-duration vertigo resulting in multiple falls, with one causing a forearm fracture. It was also reported increased effort to speak and swallow. The patient was then submitted to full otorhinolaryngologic examination, showing no otologic nor laryngology alterations. Although on semi-spontaneous nystagmus evaluation we found horizontal and vertical gaze-evoked nystagmus, on clinical Head Impulse Test, refixation saccades were detected for both sides tested. During Dix-Hallpike and Head-Roll maneuvers, the multidirectional nystagmus was also present. In view of these findings, a central etiology was first suspected. To elucidate this case a skull magnetic resonance was performed attesting Chiari I Malformation associated with basilar invagination and strong platibasia with horizontalization of the clivus.

**Conclusion:** Due to unusual presentation, with much later onset of clinical manifestations and a multidirectional gaze evoked nystagmus, showing the importance of ocular motricity evaluation on diagnosing central abnormalities, and the association with platibasia which intensified brainstem tortuosity contributing to worseness of symptoms, this case is therefore rare and worth of reporting.

#### 10642 Vocal fold hemorrhage during videolaryngostroboscopy

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**Introduction:** Vocal fold hemorrhage is an acute phonotraumatic event that results from the rupture of blood vessels of the lamina propria and causes rapid onset dysphonia. Vasculature of the lamina propria is arranged to withstand the stress of its environment. Nevertheless, phonatory vibration can produce enough forces to break these structures, specially in patients presenting varices or abnormally dilated vessel segments.

**Objective:** Report a case of sudden vocal fold hemorrhage during videolaryngostroboscopy exam.

**Resumed report:** This case refers to a 56 years old patient, female, presenting long-standing dysphonia. She worked as a teacher and was away from her work activities due to the aforementioned clinical condition. Attended at a private otorhinolaryngology service at Belo Horizonte, for a videolaryngostroboscopy exam. Upon examination, vasculodysgenesis were seen in both vocal folds, with vascular ectasia in the middle-posterior third of the right vocal fold. During the exam, patient evolved with vigorous episodes of nausea reflex and coughing, resulting in rupture of the ectatic vessel, hemorrhage in the right vocal fold and dysphonia worsening. Patient was instructed to maintain strict vocal rest, which is usually enough to solve the condition, when treated promptly.

**Conclusion:** Analysis based on location in the vocal fold varix and its morphology revealed no difference in hemorrhage rate and risk of recurrence. Recurrent vocal fold hemorrhage is accepted as a sign of a bleeding-prone vessel and an indication for surgical treatment, by either ablation or excision. Therefore, identifying patients likely to rebleed is an important clinical management.

#### 10643 Vestibular Schwannoma in an hearing-vestibular syndrome: A case report

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One of the most frequent lesions of the cerebellopontine angle is the vestibular schwannoma, which accounts for 80-90% of tumors in this topography. It usually grows slowly, and conservative treatment is suggested, especially in small lesions and in the elderly. This study reports the case of a man with hearing-vestibular syndrome, accompanied by vestibular hypofunction associated with a left vestibular schwannoma. A 75-year-old male patient came to

an otoneurology consultation, presenting for three months, vertigo during rapid head movement, associated with headache and imbalance. He presented with sudden vertigo lasting hours and left hearing loss years ago. He had semi-spontaneous nystagmus when looking only to the right, in addition to saccades to the left in HIT-C; in Head-shaking, he presented nystagmus to the right, which intensified with the removal of the ocular fixation; Low-gain V-HIT in left lateral and posterior channels with scattered covered and uncovered saccades. Due to previous auditory symptoms, the diagnostic hypothesis of left vestibular hypofunction was raised, audiometry, cranial magnetic resonance and laboratory tests were requested to assess comorbidities. At follow-up, the MRI showed an expansive extra-axial lesion at the left cerebellopontine angle, enlarging the corresponding internal acoustic meatus, compatible with a Schwannoma measuring approximately 2.5 cm. After that, the patient was referred to the oncology service and clinical follow-up to monitor tumor growth. Thus, there is a need to investigate the central nervous system in the presence of an asymmetric hearing loss associated or not with vestibular function change.

#### 10644 Spontaneous cerebrospinal fluid leak of temporal bone – sistematic review and metanalysis

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**Introduction:** Spontaneous temporal bone cerebrospinal fluid leak is a rare condition, but with increasing incidence. It represents the defect and communication between the subarachnoid space and the middle ear and mastoid cells, not associated with a trauma, infections, tumors, surgery or irradiation history. Due to the potential neurological complications, surgical treatment is imperative. The main approaches are transmastoid access and middle fossa craniotomy, or a combination of both.

**Objectives:** Perform sistematic review and meta-analysis comparing surgical outcomes (major/minor complications and success rate) of the surgical techniques used in spontaneous temporal bone cerebrospinal fluid leaks management.

**Data Synthesis:** Studies survey published between 2000-2021 in the main scientific databases. Thirteen studies were considered for analysis, totalizing 361 operated ears, 228 by middle fossa craniotomy, 59 by transmastoid access, and 74 by combined technique. Success rates were 100% [97-100%], 87% [77-96%] and 98% [92-100%] for middle fossa craniotomy, transmastoid access and combined technique, respectively. Complication rates for middle fossa craniotomy were 0% [0-3%] for minors, 5% [1-10%] for majors, with combined rate of 9% [4-15%]. Complication rates for the transmastoid route were 3% [0-15%] for minors, 0% [0-7%] for majors, with associated rate of 3% [0-15%] for the transmastoid access. Complication rates for the combined technique were 0% [0-4%] for minors, 2% [0-25%] for majors, with combined rate of 3% [0-32%].

**Conclusion:** Evidence suggests that middle fossa craniotomy has a higher success rate than others techniques, but it is also associated with additional complications rates.

**Keywords:** cerebrospinal fluid leak, middle fossa, posterior fossa.

#### 10646 The role of fibronasolaryngoscopy in the early diagnosis of oncological diseases of the lower airways

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**Introduction:** Vocal fold paralysis is a frequent cause of dysphonia and may be secondary to several injuries along the course of the tenth cranial pair and its branches, superior and inferior larynx. These ramifications are responsible for innervation of the intrinsic muscles of the larynx and for the sensitivity of the glottic, subglottic and supraglottic area. Although most cases of laryngeal paralysis are

idiopathic, neural compression caused by airway tumors can be one of its causes.

**Objectives:** Report the role of fibronasolaryngoscopy in the early diagnosis of oncological diseases.

**Resumed report:** P.P.T.L, female, 57 years old, smoker 40 pack-years, presented at a private Otorhinolaryngology service in Belo Horizonte, complaining of persistent cough, heartburn and dysphonia. Videonasopharyngoscopy showed left hemilaryngeal palsy and middle conchae with hyperemia and whitish dots. Chest CT showed a 7mm nodule, with soft tissue density and regular contours, in the apic-posterior segment of the left upper lobe, mediastinal and left hilar lymph node enlargement, with central areas suggestive of necrosis. The patient was referred to the Pneumology service, submitted to pulmonary nodule biopsy, with diagnosis of small cell lung carcinoma.

**Conclusion:** Small cell lung carcinoma typically presents with cough, hemoptysis, chest pain and dyspnea. Laryngeal palsy is an atypical finding that can occur when the tumor is located in a region that harms the function of the recurrent laryngeal nerve. In this case, videonasopharyngoscopy was essential for early diagnosis, since the patient did not present the most common symptoms presented on this type of cancer.

#### 10647 Surgical debridement of pterygoid abscess led by osteoradionecrosis of the sphenoid bone

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**Introduction:** Tonsillar region carcinoma is among the most common upper respiratory tract neoplasms. Surgery and radiochemotherapy are used managing squamous cell carcinoma. Radiotherapy may result in osteoradionecrosis when bone tissue fails to heal in over 3 months. Treatment of complications hinges on surgery for advanced cases and endoscopic approach may take place.

**Objectives:** The aim of the article is to report the case of a patient with oral squamous cell carcinoma who have developed osteoradionecrosis with extensive pterygoid abscess after radiation therapy.

**Resumed report:** 59-year-old, male, non-alcoholic, non-smoker, presented to ENT department complaining of fullness, hearing loss and pain in his left ear. Physical examination showed clear ear canal and eardrum; right displacement of uvula and left palatopharyngeal arch; and hardened, painless soft palate mass. CT scan showed parapharyngeal mass on the left side, extending to soft palate, clivus and sphenoid sinus. Histopathologic and immunohistochemistry revealed squamous cell carcinoma. Five months after chemo and radiotherapy, evolved with better ear symptoms, but masticatory muscle weakness and left hemicranial headache. CT scan showed significant bone remodeling, suggesting necrosis and filled pterygoid-apophysis-neocavity, that required surgical drainage. The compromised bone removal and abscess drainage were complemented with antibiotic therapy.

**Conclusion:** The squamous cell carcinoma may include adjuvant radiotherapy, which may be associated with further complications. One of the most common and danger is the osteoradionecrosis. This condition can evolve to abscess and may require surgical intervention. The surgeon must be prepared to diagnose and drain it.

#### 10648 Osler-Weber-Rendu syndrome - a case report

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**Objective:** To report a case of Rendu-Osler Weber Syndrome or Hereditary Hemorrhagic Telangiectasia in outpatient follow-up in order to encourage diagnostic suspicion, given its low incidence.

**Case details:** A 67-year-old female patient with severe epistaxis, without the use of antiaggregants or anticoagulants. She reported a brother with a similar clinical condition. On physical examination, she presented vascular ectasia in the nasal septum mucosa, fingers, ear lobe, nasal tip, lower lip, tongue and palate.

**Final considerations:** Rendu-Osler-Weber syndrome has a systemic involvement and can cause severe bleeding in multiple sites, such as the central nervous system and gastrointestinal tract. We emphasize the role of the otorhinolaryngologist in its diagnosis and treatment, as epistaxis is usually the main sign of the syndrome.

#### 10649 Schwannoma of the facial nerve: case report and literature review

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23 year-old female presents with House-Brackmann (HB) grade V facial palsy, conductive hearing loss (20 dB gap) and dizyness. A pale tumor was seen in the right external auditory canal.

Computerized tomography (CT) shows a tumor in the external auditory canal and middle ear and bone irregularities widening the jugular foramen. Magnetic resonance image (MRI) shows a hypointense lesion on T1 and hyperintense on T2-weighted sequences, homogeneous contrast-enhancement, compressing the lateral wall of the internal jugular vein and extending to the parotid.

Histopathological analysis supported the diagnosis of schwannoma of the facial nerve. Patient was referred to a neurosurgery service and a complete surgical resection was chosen.

No prevalence data of facial schwannomas was found in the literature. Mean age presentation was 47 years, and the main findings were asymmetric hearing loss (54%), PFP (41%) and facial spasms (26%). Growth of 2 mm/year, similar to that found on vestibular schwannomas. The location and number of facial segments involved were associated with PFP and hearing loss, meanwhile tumor diameter was not proven to be relevant.

Combination of CT and contrast-enhanced MRI is crucial for the diagnosis, showing a contrast-enhancing soft tissue material, T1 hypointensity and T2 hyperintensity, and destruction by compression of surrounding bone canals.

In small tumors with good facial function, observation is the mainstay of treatment. The authors have used a HB IV facial palsy as criteria for surgical resection.

#### 10653 Bilateral spontaneous cerebrospinal fluid leak of temporal bone – case report

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**Introduction:** Spontaneous temporal bone cerebrospinal fluid leak is a rare condition, but with increasing incidence. It represents the osteodural defect and communication between the subarachnoid space and the middle ear and mastoid cells, not associated with a trauma, infections, tumors, surgery or irradiation history. Physiopathogenesis involves temporal bone faulty development and/or the presence of aberrant arachnoid granulations, being further favored by idiopathic intracranial hypertension, obstructive sleep apnea and obesity. Due to the potential neurological complications, surgical treatment is recommended. The main approaches are transmastoid access, middle fossa craniotomy, or a combination of both.

**Objective:** Describe an uncommon case of bilateral temporal bone spontaneous cerebrospinal fluid leak.

**Resumed report:** 62-year-old female patient, body mass index of 32.7 kg/m<sup>2</sup>, healthy, reported bilateral aural fullness and hearing loss. Otoscopy showed middle ears effusion. Audiometry



and immittance showed moderate conductive hearing loss and type B tympanometric curve. Tympanotomy for placement of a ventilation tube was made and clear serous secretion was verified. The patient maintained persistent fluid otorrhea after the procedure. A computed tomography was performed and showed partial veiling of the middle ear and mastoid cells and bone defects in tegmens bilaterally. The patient was submitted to transmastoid approaches. Multiple small dehiscences in tympanic and mastoid tegmens and small meningoceles were observed. Multilayer closures were performed with bone wax, perichondrium, cartilage and bone pate.

**Conclusion:** Spontaneous temporal cerebrospinal fluid leak requires great clinical suspicion for investigation and its knowledge is essential for the otolaryngology practice.

**Keywords:** cerebrospinal fluid leak, middle fossa, posterior fossa.

#### **10654 Inner ear trauma following manipulation of the external auditory canal: A case report**

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**Introduction:** The presence of air within the vestibular labyrinth and/or cochlea is called pneumolabyrinth. This condition is usually related to a pathologic connection between the inner and middle ear cavities.

**Objectives:** To report a case of post-traumatic pneumolabyrinth following manipulation of the external auditory canal.

**Resume report:** A 42-year-old female referred in wheelchair, complaining of vertigo, nausea, tinnitus, ear fullness and hypoacusis on her left ear after inadvertently introduce crochet hook. Physical exam revealed a tympanic membrane perforation, without otorrhea and no exposition of the ossicular chain. Additionally, neurological exam was found to be normal. Five days later, she presented at our clinic with less intense vertigo, but still impacting her routine. Due to the atypical maintenance of dizziness, a CT scan was requested. The exam showed stapes footplate fracture and pneumolabyrinth in the vestibule. Fourteen days after the trauma, the patient no longer complained about the vertigo, hypoacusis or ear fullness. An audiometric exam was performed, and no hearing loss was observed.

**Conclusion:** The suspicious of inner ear lesion in traumatic membrane perforation is an important differential diagnosis of persistent vertigo.

**Keywords:** traumatic inner ear injury; ear trauma; tympanic membrane perforation.

#### **10655 Orbital complication in bilateral synchronous frontoethmoidal mucocele: Case report**

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**Introduction:** Mucoceles are benign encapsulated lesions, filled with mucus and covered by respiratory epithelium, that affect the paranasal sinuses. They are expansive, slow-growing cystic lesions that cause erosion and bone remodeling of the compromised sinus wall. Bilateral involvement of the paranasal sinuses is rare. The most common manifestations are facial pressure, periorbital pain and nasal discharge.

**Objective:** Report a case of synchronous bilateral frontoethmoidal mucoceles that evolved with bilateral orbital complications after an episode of acute sinusitis.

**Resumed report:** A female patient presented to the emergency department with symptoms of acute rhinosinusitis and diplopia. On physical examination she had bilateral purulent rhinorrhea and edema and swelling above her left superior eyelid. This patient was admitted to the hospital for administration of

systemic antibiotics. A computed tomography scan of the paranasal sinuses was ordered and pansinusitis was identified as well as bilateral frontoethmoidal mucoceles. There was erosion of the medial wall of the orbits at the frontal recesses and an abscess above the left superior eyelid could be identified. She was taken to the operating room for complete endoscopic sinus surgery. A Draf IIa approach to the frontal sinuses was done. Also, a small external incision was made to drain the collection above the left eyelid. The patient evolved well. At the sixth month of follow-up the frontal sinusotomies are patent and there is no evidence of recurrence of the mucoceles.

**Conclusion:** Sinonasal mucoceles are benign slow-growing lesions. After diagnosis, they must be managed surgically to avoid orbital or intracranial complications.

#### **10656 Acute maxillary sinusitis secondary to hemosinus after orthognathic surgery**

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**Introduction:** Orthognathic surgery is performed through osteotomies, to correct asymmetries between the maxilla and mandible. Complications are rare. When these occur, they can increase surgical time, the risk of permanent injuries and the need for new surgical approaches. The main complications are inadequate osteotomies, vascular or neural injury as well as infection or injury of soft tissue.

**Case report:** A previously healthy, 24-year-old male presented to the ENT clinic. He had a history of dental malocclusion and mouth breathing as well as a complaint of an asymmetric smile. On examination, he presented several skeletal alterations. After 2 years of management with orthodontic appliances, the patient underwent a Le Fort I osteotomy. Ten days after surgery, he developed fever and right-sided edema and facial pain. A computed tomography scan of the paranasal sinuses revealed complete opacification of the right maxillary sinus with obliteration of the ostiomeatal complex. He was initially managed with systemic antibiotics, without clinical improvement. Surgical approach via an endoscopic maxillary antrostomy was elected. Purulent and hematic contents were identified inside the right maxillary sinus and these were suctioned. The procedure was well succeeded and the patient presented resolution of his symptoms.

**Conclusion:** Infectious complications after Le Fort I osteotomies are uncommon. Likewise, there is paucity of data regarding acute rhinosinusitis secondary to hemosinus in the context of orthognathic surgery. Despite rare, these complications must be recognized by the attending otolaryngologist and can be readily managed via an endoscopic approach.

#### **10662 Spontaneous otohematoma: Case report**

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**Introduction:** Otohematoma is a condition commonly associated with trauma of external ear. Spontaneous occurrence is rare and not easily found in literature, which could cause doubts in differential diagnosis and therapeutics options.

**Objectives:** To report a case of spontaneous auricular hematoma treated in an otorhinolaryngology service and discuss treatment possibilities.

**Resumed report:** Patient A.R.L., female, 54 years old, presenting redness and swelling of left ear for 15 days, leading to a deformity in the left pinna. She related fever at the beginning of the symptoms. Denied comorbidities or pain. There was no history of ear trauma, insect bites, piercings or manipulation of the affected ear. During clinical examination, it was evidenced important swelling of the auricular pavilion of the left ear with signs of fluctuation, which

made otoscopy difficult. Treatment was performed under local anesthesia with 2% lidocaine and puncture with surgical drainage and exploration of the hematic cavity, followed by a compressive bandage with topic neomycin associated with oral ciprofloxacin 500 mg every 12 hours for 14 days. The patient responded well to treatment and the swelling resolved fully within a few days.

**Conclusion:** Spontaneous otohematoma, even though is rare, is challenging and can be treated as the traumatic cases. Despite presenting several therapeutic possibilities, it does not make it a simple entity to be treated, because of its high morbidity if not properly treated at the right time.

**Keywords:** auricular hematoma, spontaneous otohematoma, pinna hematoma.

### 10663 Acoustic neurinoma and sudden hearing loss in patients diagnosed with COVID-19: A report of two cases.

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**Introduction:** Acoustic neurinoma is a tumor that evolves from the Schwann cells surrounding the vestibular nerve. It usually causes gradual hearing loss, however, up to 25% of patients may present sudden hearing loss (SHL). The main prognostic factor is early diagnosis.

**Objectives:** Demonstrate the importance of specialized investigation in SHL, including during acute phase of COVID-19, given the need to address differential diagnoses such as acoustic neurinoma.

**Resumed reports:** Case 1: AHL, 73 years old, male, presented nasal congestion, myalgia, headache and fever on March, 2020, and development of aural fullness and hearing loss in the left ear on the sixth day. RT-PCR positive for COVID-19. Requested: Audiometry: bilateral sensorineural curve of normal degree in the right ear and mild to deep degree in the left ear. Magnetic Resonance: expansive lesion in the left internal auditory canal measuring 0.6x0.5x0.9cm, related to the intracanalicular portion of the seventh and eighth cranial nerves, suggestive of acoustic neurinoma. Case 2: AMR, 56 years old, male, reports nasal congestion, cough and decreased hearing acuity on the right ear on March, 2021, RT-PCR positive for COVID-19. Requested: Audiometry: mild asymmetrical sensorineural loss to the right, flat, and sensorineural curve of normal degree in the left ear. Magnetic Resonance: extra-axial expansive lesion cerebellopontine and in the right internal auditory canal, measuring 1.0x0.8x0.7cm, suggestive of acoustic neurinoma.

**Conclusion:** It is important that the otorhinolaryngologist follow up patients with COVID-19 and carefully investigate cases of sudden hearing loss.

**Keywords:** COVID-19, acoustic neurinoma, sudden hearing loss.

### 10664 Involvement of deep cervical spaces secondary to laryngeal foreign body

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**Introduction:** Foreign bodies (FBs) of hypopharynx/larynx account for 2%–11% of all airway FBs. These FBs are more prevalent among children, but their prevalence also rises among the elderly. The risk of deep neck space infection justifies this topic's relevance.

**Objectives:** To report and discuss the approach toward the involvement of deep neck spaces secondary to FBs in hypopharynx/larynx.

**Case report:** 67-year-old woman was referred to the Otorhinolaryngology Emergency Department of University of São Paulo Clinics Hospital 36 hours after ingesting a herring bone. She reported FB sensation, odynophagia and dyspnea on exertion. Painful

palpation of the neck and limitation of left-side cervical mobility were noted. Computed tomography of the neck revealed a 3.5cm FB at paramedian left location on posterior wall of hypopharynx, transfixing the lateral wall of the aerodigestive tract. Gas in retropharyngeal and danger spaces and no fluid collection were observed. Patient presented a cough attack during care and expelled the FB spontaneously. Nasofibrolaryngoscopy revealed fibrin in left postcricoid region, and nasogastric tube (NET) was inserted. Patient was hospitalized for surveillance, undergoing intravenous antibiotic therapy and diet intake exclusively through NET for 72 hours. The patient progressed without need for surgical approach.

**Conclusion:** Advanced age and neurological diseases are risk factors for airway FBs in adults. In the absence of fluid collection in the neck, antibiotic therapy without surgical approach is the treatment of choice. There is no consensus in the literature regarding the use of NET.

**Keywords:** larynx, foreign body, danger space.

### 10667 Mucocutaneous leishmaniasis as a predisposing factor for chronic otitis media complicated with skull base osteomyelitis: A case report

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**Introduction:** In Brazil, leishmaniasis represents an important cause of chronic sinusitis with extension to the middle ear.

**Objectives:** A case report of a patient treated at Hospital das Clínicas de São Paulo with skull base and temporal bone osteomyelitis secondary to chronic otitis media associated with infection by *Leishmania* spp.

**Resumed report:** A 60 year-old male with recent ischemic cerebral stroke and serious COVID-19 infection-associated hospitalization presents himself with a 5 months history of bilateral otorrhea associated with right facial nerve palsy and right ear hearing loss. He evolved with temporal bone osteomyelitis and deep neck infection and also presented nasal septum perforation and a large quantity of nasal crusts. Nasal mucosal biopsy resulted in a positive molecular test for *Leishmania* spp. *Pseudomonas* spp. e *Staphylococcus* spp. were isolated in the culture of ear secretions. Despite intravenous antibiotic therapy, the patient remained with facial palsy and otorrhea. The patient was then submitted to a right ear radical mastoidectomy for infection control and collection of material for biopsy. The patient's clinical condition improved significantly after the surgery and therapeutic antibiotic substitution. After leishmaniasis confirmation, amphotericin treatment was initiated, with further improvement in the patient's condition.

**Conclusion:** This case shows the importance of etiologic investigation in infectious otolaryngologic diseases with a thorough physical examination and complementary exams, in light of offering the best treatment.

**Keywords:** leishmaniasis, granulomatosis, otitis media, temporal bone osteomyelitis.

### 10668 Foreign body in the middle ear and Eustachian tube, a complication of hearing aid mold: A case report

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**Introduction:** There are few reports of middle ear and Eustachian tube foreign body. Such objects are usually extruded into the external ear canal, but they can cause complications. This case shows that care should be taken when making hearing aid molds. The elastic nature of the impression material makes it difficult to remove under local anesthesia. Previous reports describe techniques of transcanal and facial recess approach.

**Objectives:** To report a case of foreign body in the middle ear after making hearing aid mold.

**Resumed report:** A.L.S., 79 years old, female, with bilateral sensorineural hearing loss, diagnosed with bilateral tympanic membrane perforation 20 years ago. During the manufacturing process of a new ear mold, she presented pain and vertigo upon removal of the impression from the mold. A few days later, she presented with otorrhea and left otalgia. Non-contrast-enhanced temporal bones tomography showed hyperattenuating material in the left tympanic cleft extending anteriorly to the Eustachian tube, involving the long branch of the incus, and extending to the niche of the oval window and stapes. Hypodense material filling the remainder of the tympanic cleft and the fundus of the ipsilateral external auditory canal. The patient underwent surgical removal of the foreign body with transcanal approach.

**Conclusion:** Middle ear and Eustachian tube foreign bodies are rare, with few cases described in the literature. It can be one of the causes of Eustachian tube dysfunction and imaging can help to make the differential diagnosis in complicated cases.

**Keywords:** foreign body, eustachian tube, hearing aids.

#### 10669 Atypical location of esthesioneuroblastoma and its relationship to the evo-devo theory

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**Introduction:** Esthesioneuroblastoma is a malignant neoplasm originated from the neuroectoderm, which represents 3% to 6% of tumors of the nose and paranasal sinuses. The tumor has a bimodal presentation, affecting patients in the 2<sup>nd</sup> and 6<sup>th</sup> decades of life. Clinically, it presents with hyposmia, nasal obstruction, facial pain and headache.

**Objective:** Description of a case of Esthesioneuroblastoma and association of its location with the topography of the olfactory epithelium.

**Case description:** Patient I.Q.R.P., 56 years old, female, seen at the Núcleo de Otorrino BH service, presenting nasal obstruction, headache and anosmia for 6 months. Fibronasolaringoscopy was requested, which showed a polypoid-like lesion occupying the right middle meatus, advancing to the nasopharynx. A tomography scan of the paranasal sinuses showed an oval material with soft tissue density and lobulated contours, partially obliterating the right nasal cavity and completely obliterating the frontonasal and sphenoidal recesses on the right, possibly corresponding to a polyp. Endoscopic surgery was performed with complete excision of the lesion, which was attached to the septal region of the middle and superior conchae, anterior surface of the sphenoid sinus and posterior region of the nasal septum. Anatomopathological and immunohistochemical exams confirmed the diagnosis of Esthesioneuroblastoma.

**Conclusion:** To understand the atypical location, in this case with posterior implantation, one must understand the evo-devo theory, that describes a more complex constitution of the nasal anatomy, by the assembly of three different organs (olfactory nose, respiratory nose and paranasal sinuses), and a distribution of the olfactory mucosa that goes beyond the olfactory clefts, with the posterior region of the nasal septum, superior conchae, anterior region of the sphenoid sinus.

**10670 Perichondritis and the importance of its early diagnosis**  
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**Case presentation:** Patient, A.C.P., 19<sup>th</sup>, type 1 diabetic, referred to the otorhinolaryngology emergency department due to a complaint of left ear pinna otalgia after piercing implantation. Nine days after the procedure, she developed otalgia, edema, hyperemia and local abscess, with the option of hospitalization, antibiotic therapy associated with surgical drainage and local captonated dressing. The

patient was discharged from hospital 02 days after the procedure and evolved with abscess resolution, however, with deformity in the auricular scapha region due to loss of supporting cartilage.

**Discussion:** Perichondrites are inflammatory processes (with infectious potential) of the perichondrium and cartilage of the ear, caused by extension of infectious processes or trauma (accidental, piercing). *Pseudomonas aeruginosa* is the most common microorganism found in starter cultures. The skin may be scaly, crusted or even ulcerated. In the early stages, the use of adequate oral antibiotics may be sufficient. However, if purulent collection or necrosis, surgical treatment should be instituted. The pathological process can cause total and permanent deformities of the external ear (cauliflower or boxer's ear).

**Conclusion:** In addition to raising awareness among the population about the risks of perichondritis secondary to cosmetic procedures such as piercing, early treatment and diagnosis of cases is necessary, as we may have anatomical deformities as a consequence of wrongly treated or complicated cases.

**Bibliography:** Treatise on otorhinolaryngology/ organization Shirley Shizue Nagata Pignatari, Wilma Terezinha Anselmo - Lima. 3. ed. - Rio de Janeiro: National Editorial Group, 2020.

Otolaryngology – Head and Neck Surgery. Cummings. C. W. 6 ed. 2015

#### 10681 Vocal cord paralysis after SARS-COV-2 infection

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**Introduction:** Vocal cord paralysis occurs when the nerve impulses to the larynx muscles responsible for the voice production are disrupted.

**Purpose:** To Report a case of vocal cord paralysis after SARS-COV-2 infection diagnosed at the Laryngology clinic care service at the Otolaryngology division of the Hospital das Clínicas de Pernambuco.

**Case report:** A female patient, 72 years old, previously healthy, sought the Otolaryngology service reporting hoarseness, dysphonia and intermittent breathy voice after being diagnosed with upper respiratory tract infection caused by SARS-COV-2. Having spent thirteen days in a hospital nursery, she denies any invasive airway procedure, only being treated with oxygen through a nose catheter for seven days. The symptoms started a few days after being discharged from the hospital fully recovered from the COVID-19 infection. A videolaryngoscopy was performed showing a right vocal cord immobility in a paramedian position along with a bilateral vocal cord bowing without any sign of lesions in the supraglottic or subglottic regions. A neck CT scan with contrast came negative for any anomalies. The patient was then referred to a speech therapist, showing little improvement after 3 months of intensive speech therapy.

**Conclusion:** A literature review shows that laryngeal complications of COVID-19 are often related to intubation-related injuries, being vocal fold immobility the most common diagnosis, along with posterior glottic and subglottic stenosis. No study linking vocal cord palsy directly with SARS-COV-2 infection was found.

#### 10682 Chronic rhinosinusitis in a child with hyper IgM syndrome

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**Introduction:** Hyper IgM syndrome is a rare inborn error of immunity, accounting for 0.3 - 2.9% of primary immunodeficiencies. It is characterized by low or absent IgG, IgA and IgE levels and normal or elevated IgM. As pathophysiology, there are defects that can be autosomal dominant, recessive or X-linked. The clinical manifestations are varied and depend on the genetic defect that originated it. These can range from recurrent bacterial infections to increased propensity for neoplasms. Treatment is based on immunoglobulin replacement,

which may be added, for selected cases, to prophylactic antibiotics, among other therapies.

**Purpose:** To report a case of Chronic Rhinosinusitis in a child diagnosed with Hyper IgM syndrome.

**Case report:** Male, 10 years old, was referred from the Immunology service to the paediatric otolaryngology service of the Hospital das Clínicas de Pernambuco complaining of nasal obstruction, chronic cough, anterior and posterior rhinorrhea that compromises his normal activities and sleep with a paranasal sinuses CT showing veiling of maxillary, ethmoidal and sphenoidal sinuses bilaterally along with hypertrophy of the pharyngeal tonsil. Physical examination showed hypertrophic palatine tonsils (grade IV). The patient were previously been treated with immunoglobulin reposition, nasal corticosteroids and profilactic antibiotic. It was indicated short course with antibiotics and adenotonsilectomy.

**Conclusion:** The otolaryngologist has to have a high grade of suspicion of innate immune errors, especially in children with persistent or severe bacterial infections, because many of these patients will visit a otolaryngology office prior to the final diagnosis.

#### 10684 Mathematical model for facial profile analysis in aesthetic rhinoplasty

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**Introduction:** Aesthetic rhinoplasty is the surgery done to resize and reshape the appearance of nose. In this surgery, an analysis of face profile is necessary for to define the external nasal deformities and to determine the appropriate surgical intervention. For aesthetic rhinoplasty, the most important points will be observed in the face profile are the position of the nasion, the height of the radix, the dorsal shape, the projection and the rotation of the tip nose.

**Objective:** To develop a mathematical model for facial profile analysis in aesthetic rhinoplasty.

**Methods:** In a photo of the face profile, with Photoshop CS6® software, the Frankfurt horizontal plane and a perpendicular plane passing through the nasion were traced. After, a line was drawn between the nasion and the nasal tip, a tangent line to the nasal bone and another tangente line to the columella. The angles formed by the intersections between these planes and lines, when applied in mathematical model can indicate, the main surgical interventions to be realized in aesthetic rhinoplasty.

**Discussion:** The mathematical model was developed from adaptations and approximations of other metrics, like as Goode's method and angles: nasolabial, nasofacial, nasofrontal and nasal tip. And the surgical interventions indicated by this model includes the rotation and projection of the nasal tip, increase or reduction of the nasal dorsum.

**Conclusion:** The mathematical model developed should be used for guidance and not determination. Only experience tells us how to pair an aesthetic goal with the appropriate technical.

**Keywords:** aesthetic; rhinoplasty; mathematical model.

#### 10689 Large bilateral vestibular schwannoma in a child

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**Introduction:** Vestibular schwannoma is a benign, slow-growing tumor that, when bilateral, is pathognomonic of type 2 neurofibromatosis. Approximately 18% of cases present before 15 years old, and the main and earliest symptom is hypoacusis.

**Objectives:** To describe the case of a pediatric patient with hypoacusis and diagnosis of large vestibular schwannoma.

**Summary Report:** A 14-year-old patient with bilateral hearing loss associated with café-au-lait spots on her back beginning when she was 10 years old. Audiometry was performed 4 years after the onset of hearing loss, with moderately severe sensorineural hearing loss and magnetic resonance imaging showing the presence of a bilateral heterogeneous mass, occupying the internal auditory meatus, the cistern of the cerebellopontine angle, compressing the brainstem, with the largest mass with 40mm of diameter, compatible with type 2 neurofibromatosis, type Gardner. There were no intracranial or spinal cord schwannomas. Surgical excision of the tumors was then performed by retrosigmoid route. At the moment, the patient is doing well, awaiting a brainstem implant.

**Conclusion:** The median survival after the diagnosis of vestibular Schwannoma is five years in 85%, ten years in 67% and 20 years in 38% of patients. The great advantage of retrosigmoid access is the possibility of preserving the auditory function. Despite being a benign and slow-growing tumor, early diagnosis is important in an attempt to preserve the patient's hearing and avoid complications due to tumor compression.

#### 10691 A peculiar foreign body in the nose

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**Introduction:** Nasal foreign bodies are a common reason to visit ENT doctor and occur most frequently in children and mentally retarded patients. Foreign bodies can be animate or inanimate and can be found in any portion of the nasal cavity, but typically around the floor of the nose.

**Objectives:** To report a peculiar case of a foreign body in an adult's nose.

**Resumed report:** We report the case of a 63-year-old female, institutionalized with psychiatric disorder, who went to the ENT doctor with a history of purulent and foul-smelling unilateral nasal discharge for about 1 year. No notion of nasal obstruction. She performed several cycles of antibiotic therapy with temporary improvement of symptoms. On physical examination, she had purulent discharge in the right nasal cavity associated with the presence of a foreign body, with a cylindrical structure, approximately 10 cm in length, that was removed. Six months before the consultation, CT Scan of the paranasal sinuses was performed and the images already revealed the presence of this foreign body at the level of the right middle turbinate and extending to the posterior nasopharyngeal wall.

**Conclusion:** A purulent unilateral nasal discharge should raise suspicion of the presence of a foreign body, regardless of age, and must be promptly referred for observation by the ENT doctor.

**Keywords:** foreign body; unilateral nasal discharge; nose.



### 10306 Association between breathing and position of the tongue and lips in newborns

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**Introduction:** From birth, nasal breathing is expected in newborns, with a raised tongue position and closed lips posture, but any nasal obstruction can impair the craniofacial development and breastfeeding.

**Objective:** To verify the association between breathing and lips and tongue posture at rest in newborns in the first days of life.

**Methods:** A cross-sectional study was carried out in 130 babies, in a university hospital. Included newborn with Apgar score greater than or equal to 8. The exclusion criteria were: birth of the indigenous population, garnet, and workers who have recently given birth (serum positive for human immunodeficiency virus) and clinical conditions are unstable, premature birth, perinatal complications, the presence of craniofacial anomalies, neurological diseases, genetic syndromes, and the artificial feeding. The data collection was carried out by the researcher and by three speech therapists from hospital. It notes the position of the lips, tongue, and the position of the nasal expiratory flow in the newborn sleeps and maternal complaints about the presence/absence of respiratory changes. The data were subjected to statistical analysis using the tests, Fisher's exact test and the Chi-Square test, adopting a significance level of 5%.

**Results:** There was an association between tongue and lips position at rest and tongue anteriorization and nasal expiratory flow exit, tongue position and maternal complaint.

**Conclusion:** There is a relationship between the nasal expiratory flow, position of lips and tongue and presence of anteriorization movement of the tongue in newborns in the first days of life.

### 10307 Efficacy measures using fiberoptic endoscopic evaluation of swallowing scales on the individual with traumatic brain injury

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**Introduction:** There are many parameters to measure the efficacy of rehabilitation in dysphagia and to use of qualitative and/or quantitative measures are essential to validate the outcomes.

**Objectives:** To compare the performance of swallowing before and after rehabilitation program in the individual with Traumatic Brain Injury (TBI).

**Resumed report:** Single case study, approved by the Ethics Committee 2.670.111, male, 34 years old, TBI in December/2018, spastic dysarthria, mild attention deficit, dysphagia, nasogastric tube feeding, follow-up in a home program until April/2019 and transferred in May/2019 for a specialized center. An intensive swallowing and nutrition rehabilitation program was developed for three months, placement of gastrostomy and a new assessment post-swallowing therapy in August/2019. Severity scale for dysphagia, the American Speech-Language-Hearing Association National Outcomes Measurements System (ASHA-NOMS), Penetration Aspiration Scale (PAS), Yale Pharyngeal Residue Severity Scale (YPRSS) and posterior oral spillage scale were applied before and after rehabilitation. The first assessment found severe dysphagia, ASHA-NOMS level 1, posterior oral spillage level V, YPRSS level V (valeculas; pyriform sinuses), PAS level VI and food selectivity to try food by mouth. Post-Swallowing therapy and behavior nutrition management, moderate dysphagia, ASHA-NOMS level IV, posterior oral spillage level III, pharyngeal residues in valeculas level III, level IV in pyriform sinuses, PAS level I and more acceptance of different types of food by mouth.

**Conclusion:** In this individual with Traumatic Brain Injury there were improvements in the levels of the different scales applied after an intensive swallowing rehabilitation program.

**Keywords:** swallowing disorders, traumatic brain injury, endoscopy.

### 10310 Speech pathology telepractice for craniofacial patients during COVID-19 pandemic

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**Introduction:** Cleft lip and palate are the most common congenital craniofacial anomalies. Speech management is one of the keystones for ideal interdisciplinary care, but it can be a challenging and long path. Different treatment methodologies have been described. In 2020, the pandemic-related disruption of healthcare services also affected patients with craniofacial anomalies leading to changes related to service delivery.

**Objectives:** To share the experience acquired when implementing teleservices in a craniofacial center, focusing on speech pathology.

**Data Synthesis:** As a routine, in the first visit to the hospital, the patient is evaluated by an interdisciplinary team to establish the main treatment protocol. During the first months of Covid-19 pandemic in 2020, these traditional in-person assessments were conducted by telepractice. In April 2020, remote speech management was implemented after Brazilian Speech Pathology Council approval. A total of 210 sessions were performed from April 8th to July 15th 2020 in different modalities: orientation, follow-up, assessment and therapy sessions.

**Conclusion:** Nowadays, as Covid-19 situation in Brazil is not controlled yet, speech therapy is still delivered via telepractice. In our experience, online therapy has promoted a lot of interest and motivation, especially when strategies are age-appropriate. There are limitations, especially concerning the quality of the internet connection, the availability of electronic devices and the understanding of the virtual platform. Traditional in-person healthcare service delivery has been reestablished for speech and hearing assessment and feeding management. Finding the best way to combine in-person and telehealth approaches is probably the next step in a post-pandemic scenario.

### 10311 Feeding management in a treacher collins child pre and post mandibular distraction osteogenesis

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**Introduction:** Oropharyngeal dysphagia is considered one of the main craniofacial anomalies children's problems. When airway obstruction is associated with complex cases, such as Treacher Collins syndrome, the risk for dysphagia increases. Aspiration is frequently encountered and chronic airway obstruction combined can cause pneumonia and failure to thrive. Clinical and instrumental swallowing evaluations determine whether safe oral feeding is possible or not. Mandibular distraction osteogenesis is an adequate surgical treatment and represents an alternative to tracheostomy.

**Objectives:** To describe the feeding process pre and post mandibular distraction in a Treacher Collins syndrome case.

**Resumed report:** A 36-months-old Treacher Collins syndrome (TCOF 1) girl, with familial recurrence, admitted in our hospital when 10-months-old, accompanied by Craniofacial Surgery and Dysphagia Teams. The gastrostomy and tracheostomy were placed in other service at age 1 month. History of recurrent pneumonia, more than 6 episodes per year, and antibiotic therapy. Before mandibular distraction, she started tracheostomy occlusion and partial oral feeding with pasty foods. Surgery was performed at 29 months. After clinical and instrumental evaluation (videofluoroscopy) on 28th postoperative day, partial oral feeding was restarted. The distractors were removed along with tracheoplasty at 34 months. At 36 months, she was already on exclusive oral diet and gastrostomy was also removed.

**Conclusion:** Mandibular distraction eliminated airway obstruction and simultaneously corrected swallowing problems. It is essential to understand structures and stomatognathic system adaptations to better define treatment, as well as provide caregiver training to feed the child properly.

**Keywords:** treacher Collins syndrome, mandibular distraction osteogenesis, dysphagia, craniofacial anomalies.

### 10333 Pattern of maximum voluntary contraction in patients with temporomandibular joint disorders before and after speech therapy with and without use of elastic bandage

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**Introduction:** In the field of speech therapy, in addition to orofacial myofunctional therapy indicated for patients with temporomandibular disorders (TMD), there is the use of therapeutic elastic bandage to provide external support. Regarding the assessment, surface electromyography (EMG) has been widely studied as a resource, as it allows the non-invasive assessment of the bioelectric phenomenon.

**Objective:** To verify whether there is a difference in the electromyographic values of maximum voluntary contraction (CVM) in patients with TMD before and after speech therapy intervention with and without the use of therapeutic elastic bandage.

**Method:** Research developed as a partial requirement of the PIBIC scholarship, the collection included 17 female volunteers, aged between 18 and 40 years, with a diagnosis of muscular or mixed DTM. Patients were divided into two groups classified as patients with bandage along with traditional therapy (GB) and traditional therapy group (GS). The patients were initially evaluated by surface electromyography in the situation of maximum voluntary contraction and after four weeks of intervention, a new evaluation was performed with the same instrument.

**Results:** In the GB group, the masseter and temporal muscles on the left side showed a statistical decrease in the CVM pattern, while the GS group did not present statistically significant values, but the CVM muscle values decreased.

**Conclusion:** The performance of myofunctional exercises associated or not with elastic bandage brought about a decrease in the value of CVM, which may be a consequence of a post-therapeutic muscle relaxation.

### 10348 Analysis of immediate effects on expiratory flow measurement in patients undergoing systemic lasertherapy

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**Introduction:** Low intensity laser therapy (LLLT) is non-invasive, safe and has anti-inflammatory and antioxidant actions. It has beneficial effects for the treatment of lung diseases.

**Objective:** To analyze the effects of LLLT on expiratory flow measurement using the Peak Flow Meter (PFM) in patients undergoing speech therapy.

**Method:** Randomized controlled clinical trial, with 18 patients, oriented about the procedure, formalized with a consent form and organized into 3 groups: 7 "singers", 7 "elderly" and 4 "no complaints". 6 men and 12 women, between 25 and 91 years old. The Peak Expiratory Flow (PEF) measurement was performed, using a portable spirometric device (PFM), low cost, independent of electrical source and directly related to muscle strength and lung volume. LLLT applied for 15 minutes in the radial artery left, at 660nm (brand: DMC) with a power of 100 mW. Verification with PFM was performed immediately after applying the LLLT to the participants.

**Results/Conclusion:** Significant positive correlations were found for Peep and Saturation variables in all ages, groups and sex. Initially, the statistical results allow us to infer that the effects of LLLT, on an immediate basis, seem to be effective in the mean O2 saturation and

sympathetic modulation: favorable physiological situation for better reflex control of the cardiovascular system; contribution; pulmonary homeostasis; increase the volume of gas exchange. Consequently, muscle movements associated with pulmonary dynamics also seem to perform better.

### 10349 Assessment and intervention of children with feeding difficulties with Trisomy 21: Case report

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**Introduction:** In children with Trisomy 21, feeding difficulties may be present. Some signs are alterations in oral motor skills, sensory processing, longer mealtimes, food refusal, lack of autonomy and others. However, just a few are discussed about feeding difficulties and their rehabilitation process in this population.

**Objective:** To describe the assessment and intervention of speech-language pathology and occupational therapy in feeding difficulties in a child with Trisomy 21.

**Resumed report:** A 3-year and 2-month-old male child with a diagnosis of Trisomy 21. Speech-language pathology assessment showed a child with feeding difficulties, delay in oral motor skills, low intraoral perception and acceptance of only three types of foods. In the evaluation of occupational therapy an altered sensory profile was verified. In the speech-language pathology sessions, aspects such as food perception, rhythm and feeding time were accomplished. In occupational therapy sessions, the objective was to adjust the alertness level to alertness, promote independence and psychomotor development. After the intervention, the speech-language pathology reassessment showed that there was an expansion of the menu for the ingestion of all foods, improvement in perception and intraoral motor skills, acceptance of different utensils and food presentation modes, autonomy and pleasure in meals. The reassessment of occupational therapy showed a better level of alertness and attention, more functional use of hands and fingers to eat.

**Conclusion:** In this population with feeding difficulties, research is needed to describe the assessment and therapeutic process for better identification of signs and multiprofessional management/intervention.

### 10356 Repercussions of social isolation due to COVID-19 in the child development

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**Objective:** Compare the physical and mental child development before, during and after the situation of social isolation due to COVID-19's pandemic.

**Methods:** The study was conducted in the Medical School of USP, Brazil. Data collection used a virtual questionnaire, mainly because it allows the participation of a larger number of individuals, especially at a time when social isolation is a security measure. The parents/guardians of 85 children aged between 0 and 5 years and 11 months old were asked to answer questions based on the ASQ-3 (Ages and Stages Questionnaire III), containing questions related to Communication, Gross Motor, Fine Motor, Problem Solving, and Personal-Social and ASQ-SE (Ages and Stages Questionnaires Social-Emotional) addressing issues of self-regulation, compliance, social-communication, adaptive functioning, autonomy, and affect. In addition, behavioral issues related to children's mental health were included, such as: aggressiveness, insomnia, lack of appetite, apathy, sadness, tiredness, lack of interest, hyperactivity, manias, tantrum, among others. The questionnaire was posted on social media to be answered by a convenience sample. Child development data were collected before and during quarantine / isolation and later, there will

still be a second stage, after the end of social isolation. Initial results and discussions: The data show that the social distancing caused by the Covid-19 pandemic brought consequences for child development, such as regression in behavior to phases when they were younger, crying more, talking less, presenting food issues, besides difficulty in signaling the desire to go to the bathroom.

**Keywords:** child development, social isolation, mental health, COVID-19.

### 10398 Speech therapy strategies in the treatment of food refusal associated with sensory dysfunction

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**Introduction:** Refusal to feed corresponds to one of the main behaviors present in childhood feeding difficulties, which can result in insufficient growth, malnutrition, as well as conflicts and stress during meals.

**Objectives:** Describe speech therapy strategies in food refusal.

**Resumed report:** Male patient, two years and eight months old, with a history of hospitalization in a pediatric ward due to severe protein-calorie malnutrition. After etiological investigation, organic causes were ruled out. Nasoenteral tube was passed with progressive food reintroduction, with subsequent satisfactory weight gain and progressing to hospital discharge after 27 days. Currently in speech therapy to reduce sensory dysfunction and promote oral feeding. The main strategies used were: visual, tactile and olfactory stimulation through the offer of food of different types, shapes and textures, in addition to proprioceptive stimulation in the oral cavity to increase sensory motor comfort. The family was asked to repeat the strategies daily at home and record the child's performance in a notebook. As an environmental control measure, the elimination of distractions, such as screens and toys, during activities was suggested. Parents were instructed about the affective influence on the development of food competence, with family meals being proposed, shared at the table. After seven months of therapy, the nasoenteral tube was removed and oral feeding increased. Patient remains in therapy due to food selectivity.

**Conclusion:** Therapeutic intervention in food refusal involves biopsychosocial aspects, being effective sensory stimulation strategies, changes in the family and environmental context.

**Keywords:** therapeutic methods, eating disorders, sensory disorders, pediatrics.

### 10401 Physiology of swallowing in patients tracheostomized with and without cuff

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Centro Universitário das Faculdades Metropolitanas Unidas

**Introduction:** Swallowing is a complex process, which is divided into preparatory, oral, followed by pharyngeal and esophageal. A factor that can cause changes related to swallowing is tracheostomy, a stoma performed in a surgical procedure to enable effective airway breathing higher, having several factors as possible causalities. The tracheostomy may or may not have the presence of the cuff, a cuff that when inflated causes a seal on the tracheal wall, preventing escaping air around the cannula and preventing it from going to the lower airways, if not through the cannula, and also used to minimize bronchoaspiration of saliva and food. It's known as decannulation the process of removing the tracheostomy, and has as part of the deflation of the cuff, this is seen as positive for swallowing physiology.

**Purpose:** Verify through survey bibliographic differences in the physiology of swallowing in tracheostomized patients with and without the inflated cuff.

**Methodology:** The established research methodology was a narrative review of the literature.

**Results:** The search resulted in a total of 516 articles from the descriptors, being excluded by title 490, by duplicity 4, after reading

in full, 10 articles were excluded, the from the date of publication 3 articles were excluded, finally 9 articles were used.

**Conclusion:** Most of the studies report cuff deflation as positive in the physiology of swallowing, but it's understood as necessary to carry out further studies, considering that the inflated cuff has a factor preventive aspiration, although with an impact on the physiology of swallowing.

### 10407 Identification of risk factors for changes in central auditory processing in university students

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**Introduction:** Central Auditory Processing (CAP) acts on the construction of communication and, consequently, on the development of academic competencies. Disorders are related to phonological processing difficulties and auditory discrimination, impairing the interpretation of sound information.

**Objectives:** The study aims to investigate the risk factors for changes in CAP in university students through a specific structured questionnaire.

**Methods:** Study approved by CEP: 3890010. 76 University students of the 5th and 8th period of the Speech Therapy course of Universidade Veiga de Almeida, aged between 20 and 48 years, participated in the study. The Auditory Self-Perception Questionnaire was applied.

**Results:** Students reported having difficulty in understanding sound information with a verbal competitive message (75%), difficulty in self-perception of verbal aspects (57.90%) and difficulty in maintaining focus (50%); they also reported greater difficulty in the perception of their own vocal tuning characteristics and when there is a lot of sound information competing for their attention when there is a shift change. Among the age group of 31 to 48 years, students perceived difficulty in understanding speech in the presence of noise ( $p=0.02$ ), and in the age group of 20 and 25 years reported difficulty in the temporal aspects of hearing in verbal sequential memory ( $p=0.04$ ) and in the self-perception of verbal aspects ( $p=0.01$ ).

**Conclusion:** Significant difficulties reported by university students were observed, in relation to external situations, competitive verbal and non-verbal sounds are factors that make it difficult to understand the sound information which can cause setbacks in learning during academic development.

### 10416 Is remote and distance teaching during the COVID-19 pandemic related to the university professors' weight gain, BMI changes and self-perception of voice?

Luciana Lozza de Moraes Marchiori, Daiane Soares de Almeida Ciquinato, Gloria de Moraes Marchiori, Bráulio Henrique Magnani Branco, Matheus Lindorfer Rodrigues, Michelle Cardoso Machado dos Santos, Nicoli Meurer Cordova

Universidade Cesumar - Unicesumar (Source Of Support: Araucária Foundation)

**Introduction:** There is a lack of studies on probable associations of voice symptoms in university professors during the COVID-19 pandemic. University professors, used to face-to-face teaching, had to adapt to teleworking and other changes in their lifestyle, imposed by the necessary social distancing. It hindered the habitual physical activities and sleep schedule and brought about changes in nutritional, postural, physical, and mental health – affecting phonation, for instance.

**Objective:** aimed to verify the impact of weight and BMI changes on vocal symptoms in university professors during the COVID-19 pandemic.

**Methods:** This cross-sectional study is an integral part of broader research. The project was approved by Human Research Ethics Committee. The professors answered an online semi-structured questionnaire (to which the consent form was appended) with 27 questions related to health, voice, weight and Body Mass Index changes and during the pandemic. The link was sent via e-mail.

**Results:** Altogether, 74 professors who comprise the faculty of the undergraduate program at the institution where the research was conducted were assessed. Their mean age was  $42.1 \pm 8.9$  years; 68.9% (N = 51) were females and 31.1% (N = 23) were males; 47.3% were well-nourished (N = 35) and 16.2% (N = 12) were obese; 20.3% (n = 15). There was an association between the groups and voice change ( $P = 0.004$ ).

**Conclusion:** This study revealed an association between worsened voice and Body Mass Index in professors due to remote and distance teaching during the COVID-19 pandemic.

**Keywords:** body mass index; voice; professors; COVID-19.

#### 10424 Risks for falling and frailty syndrome

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**Introduction:** Due to aging, we expect the increasing of risk for fallings and the development of the Frailty Syndrome in elderly. It is urgent the implementation of policies and services for early diagnosis and intervention for falls.

**Purpose:** To identify the prevalence of Frailty Syndrome in community elderly people and verify the associations with gait and risks to falls.

**Methodology:** Descriptive, cross-sectional, and analytical clinical study, approved by the Ethics and Research Committee (number 10266919.1.0000). A hundred and one volunteers, aged mean  $69.7 (\pm 6.5)$  years, 79.2% of the female and 20.8% male were submitted to the Edmonton Frail Scale (EFE) to identify the prevalence of frailty and to Dynamic Gait Index – Brazilian Brief (DGI) that assess the gait and potential risks for falls. For statistical analysis, Wilcoxon and Spearman correlation tests were used.

**Results:** 45.5% of volunteers were identified as frail, with an average of 4.6 points, 17.4% were male and 82.6% female. Elderly people over 70 years showed more susceptible to frailty. The mean DGI was  $12.2 (\pm 2.3)$  points and 34.6% of the sample with risk for falls. There was no significant correlation between EFE and gender for the Wilcoxon test, but Spearman's correlation showed a significant relationship between DGI and age ( $r_s = -0.3$ ) and EFE ( $r_s = -0.23$ ).

**Conclusions:** There was a high prevalence of Frailty Syndrome among community elderly persons. The volunteer who presented a high risk of falls due to gait alteration were the more long-lived.

**Keywords:** Frailty, aging, postural balance, risks to fall.

#### 10425 Skarzynski tinnitus scale findings in patients with and without hearing loss

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**Background:** Tinnitus is a prevalent condition among different populations. As the nature of tinnitus is subjective, the use of questionnaires have been validated and utilized to assess its interference in quality of life in individuals.

**Objective:** The study aims to assess psychometric properties of Skarzynski Tinnitus Scale as well as to analyse the impact of tinnitus in individuals with and without hearing loss by using STS.

**Methods:** We recruited 58 subjects (34 female), over 18 years old (mean = 52.45; SD = 15.21), with continual tinnitus were divided between two groups: 26 subjects with normal hearing (G1) and 32 subjects with hearing loss (G2). Each individual completed the STS by themselves and were audiotically evaluated by pure tone audiometry (0.25 to 8 KHz).

**Results:** The mean STS global score obtained in G1 were  $32.34 \pm 19.11$  and in G2  $33.32 \pm 20.97$ , respectively. Sex differences statistically was non-significant for psychological distress subscale, functional subscale, coping subscale and for STS total score. A statistically significant difference only in the coping subscale ( $p = 0.027$ ),

which subjects with normal hearing had higher scores (poorer coping) than those with hearing loss.

**Conclusion:** The results of this study indicate there was an influence of the presence of hearing loss in relation to the impact of tinnitus.

#### 10487 Relationships between speech intelligibility and recognition of meaningful and nonsense words in children with hearing impairment

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**Introduction:** Hearing capacity is an abstract concept of the anatomical-functional potential of a subject based on tests that assess the integrity and/or functioning of the organs. Performance is subject to the influence of numerous factors.

**Objective:** Establish relationships between hearing capacity and performance in speech perception tasks in children with hearing impairment.

**Method:** Speech Intelligibility Indices (SII) were established for input sounds of 55 and 65 dBNPs of 10 children with sensorineural hearing loss, bilateral hearing aid users with oral language. They were submitted to the task of repeating words with and without meaning at (55 and 65 dBNPs). In data analysis, the SII was related to the results obtained in each analysis criterion, ethics nº 204/2011.

**Results:** Ten subjects between 6 and 17 years old, with different degrees of hearing loss and all with sensorineural loss participated in the research. The subjects had greater difficulty with the 55 dB list. It was observed that, as the SII decreases (subjects sorted in descending order of SII 65), the performance at 55 dB also worsens.

**Conclusion:** The study concluded that with the worsening of the SII, the performance in discriminating words with and without meaning worsens, especially in nonsense words. The performance on the vocabulary test seemed to interfere in the discrimination of meaningful and nonsense words. However, further studies are needed to confirm our hypothesis.

#### 10494 Burned patients and the relationship with speech therapy

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**Introduction:** We know that according to the literature, a burn can be defined as an injury to organic tissues, are common accidents and are due to various causes, and are categorized as physical, subdivided into thermal, electrical and radioactive, and chemical. The speech therapy performance in this situation, it takes place through the rehabilitation of functionality in, mainly, areas of Orofacial Motricity and Dysphagia, as patients with burns, in short, may present difficulties in performing the functions of chewing, swallowing and articulating speech.

**Objective:** To compare the information found in the bibliography on speech therapy activities in burn patients and establish common points about this relationship with the cases found in the articles.

**Method:** Analysis of articles researched on the topic in the databases of PubMed and SciELO, in addition to general references found, and publications on the theme 'Speech Therapy Burns', 'Speech Therapy Burns' and 'Rehabilitation Burns'. Analysis and comparison of selected articles was performed on the following topics: portrayed causes, main speech therapy findings and therapies employed.

**Conclusion:** We see that, according to the authors, we have, in short, that the burn patient arrives at speech therapy with injury causality by physical agents, more specifically by thermal agents. The authors are in complete consensus when talking about speech therapy findings and employed therapies, having in their findings functional changes in the movement of head and neck structures, speech,



swallowing and chewing, and in therapies the functional rehabilitation of these same structures through exercises myofunctional.

### 10501 What to expect from results after sequential cochlear implant in post lingual adults?

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**Introduction:** Bilateral cochlear implants (CIs) have been increasingly indicated with the aim of providing quality of life by improving hearing in challenging situations. In clinical practice, we observed the performance of the second implanted ear (IC2) does not always reach the performance of the first side (IC1) in adults with post-lingual deafness.

**Objective:** To determine the frequency of occurrence of sequentially implanted post-lingual adult who manage to achieve the result of the first implant and what is the average time it takes for the ear with the second CI to surpass the preoperative performance.

**Method:** Retrospective study with a convenience sample. Adolescents or adults post-lingual users of bilateral CI with sequential surgeries were selected. Auditory thresholds and speech recognition of sentences in silence at 65dBHL at three, six, and 12 months of use after IC1 and IC2 were analyzed.

**Results:** 80% of patients reached speech recognition in silence in open presentation on average after three months of CI use. The audiometric thresholds with IC2 for 250Hz and the PTA after three months of use of the device showed a statistically significant difference, showing that the presence of auditory residue in the second ear implanted can justify better results with IC2.

**Conclusions:** The results with the IC2 reached and in some cases, surpassing the preoperative results and the IC1 results after three months of use of the device, probably because they have more auditory residue and have the experience of IC1 with electrical stimulation, facilitating adjustments to the mapping of IC2.

### 10512 Dysphagia protocols in intensive care: A validation study

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**Introduction:** Intensive care units provide their services to critical patients who need specialized care. Within this unit, the speech therapist professional has as main competence the identification and treatment of dysphagia in order to prevent or reduce its complications, reducing hospitalization time and hospital costs. Therefore, it is relevant to use specific and validated protocols for this sector.

**Objectives:** Perform the content validation of dysphagia screening and assessment protocols, in addition to an operational flowchart for intensive care patients.

**Methods:** Descriptive methodological research. The Theory of Psychometrics was used for the content validation process, Experts in dysphagia were randomly selected to be the judges and they classified the relevance of the items, as "adequate", "adequate with modifications" and "inadequate. A minimum agreement level of 0.75 was considered to guarantee the validity of the material.

**Results:** Of the analyzed items of all instruments, only changes in intra and extra oral sensitivity, alert level, current nutrition, speech therapy, actions taken for indirect and direct evaluation of swallowing, and reassessment time had to be adjusted for having CVI < 0.75. Overall, the CVI for screening, evaluation, and flowchart were, respectively, 0.90; 0.86, and 0.81.

**Conclusion:** It is concluded that the proposed protocols have satisfactory content validity and may allow for a homogeneous and standardized service. Despite a specific population, the continuity of the validation process is relevant.

### 10554 Cough severity index: Validation in Brazilian Portuguese

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**Introduction:** Chronic cough negatively impacts quality of life. There is no self-assessment instrument validated in Brazilian Portuguese for the severity of chronic cough symptoms.

**Objective:** To validate the Cough Severity index in the Brazilian Portuguese (CSI-Br).

**Methods:** Research was approved by the Ethics Committee (no. 4.052.666). Participants were divided into Chronic Cough Group (CG; 50 individuals with a mean age of 46.4) and Healthy Control Group (HCG; 50 individuals with a mean age of 33.0). Procedures: a) application of CSI-Br for all participants; b) application of the Voice Handicap Index (VHI)-10 and the Newcastle Laryngeal Hypersensitivity Questionnaire (LHQ-Br) in the CG; c) application of CSI-Br for test-retest reliability (interval between 2 and 14 days). The validation was composed of five stages: construct validity, reliability, reproducibility, convergent validity, and discriminant validity.

**Results:** In construct validity, the instrument identified two factors (1st factor - Physical and Social Activities, items 2, 3, 4, 5, 8, and 10; 2nd factor - Psychological and functional, items 1, 6, 7, and 9) and explained 67.6% of the total variance. The reliability had a value of  $\alpha=0.914$ . Reproducibility showed an ICC value of 0.909. CSI-Br showed a negative correlation with VHI-10 and a positive correlation with LHQ-Br in convergent validity. In discriminant validity, all items and factors differentiated participants in the CG from those in the HCG.

**Conclusion:** The ten-item CSI-Br with two factors is reliable and valid for analyzing the severity of chronic cough symptoms in Brazilian individuals.

### 10555 Sound generator, amplification and counseling for tinnitus treatment

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**Introduction:** A range of therapies are available to treat tinnitus, however none of them can concisely lead to the remission of the symptom and each subject should be evaluated and treated regarding their specificities.

**Objectives:** To assess the characteristics of tinnitus according to the severity and psychoacoustic measures, before and after intervention with hearing aids associated with sound generator and one session of counseling in the elderly with hearing loss.

**Methods:** Elderly subjects with chronic bilateral tinnitus and with bilateral mild to moderate sensorineural hearing loss were included in the studied (Ethics Committee nº 59797816.4.0000.5417). The subjects that had already performed some intervention to tinnitus and with poor general health were excluded from the research. The study was performed in the following stages: initial assessment, intervention, 3-month follow-up and, final assessment. For the inferential analysis the Pearson's Correlation Test was performed and the Paired T-Test for comparisons.

**Results:** The results of the present study imply significant values before and after intervention with a SG, mainly when analyzing the results of the Tinnitus Handicap Inventory (THI) and Visual Analogue Scale (VAS) ( $p<0.001$ ). The present study also showed a significant correlation between loudness measurement and MML of both ears before the intervention ( $p<0.001$ ).

**Conclusion:** Therefore, the SG associated with the hearing aid and one session of counseling, ameliorated the perception of tinnitus assessed by THI and VAS in the elderly with hearing loss.

**Keywords:** tinnitus. elderly. hearing aid. counseling.

### 10558 Influence of the frequency of psychoactive use on self-perception of memory and vocal handicap: An analysis during the SARS-CoV-2 pandemic

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**Introduction:** The COVID-19 pandemic was a chronic stressor for the world population. In behavioral response to stress, there is often an increase in the consumption of psychoactive substances that can negatively impact several aspects of human communication.

**Objective:** To verify the influence of psychoactive agents on retrospective and prospective memory and the vocal handicap of Brazilians during the SARS-CoV-2 pandemic.

**Methods:** Cross-sectional, approved by the Research Ethics Committee (CAAE number 30092520.0.0000.5257), conducted in 2020 in a Brazilian population by administering digital questionnaires containing questions about sociodemographic data, knowledge related to the pandemic, use and frequency of psychoactive substances, and the Prospective and Retrospective Memory Questionnaire (PRMQ) and Vocal Handicap Index (IDV) protocols. The results were analyzed using descriptive statistics and multiple linear regression, with a significance level of 5%.

**Results:** 361 people participated, most female, with complete higher education, who use their voices professionally, who did not belong to the group at risk for COVID-19, and who lived with people in this group. Regarding psychoactive substances, most of the sample did not use or consume them sporadically. The frequency of use of prescription and over-the-counter medications predicted the total PRMQ score. The consumption of tobacco, cannabis sativa, and prescription drugs were predictors of the total IDV score.

**Conclusion:** The use of psychoactive substances during the SARS-CoV-2 pandemic may interfere with memory and the perception of vocal handicaps.

### 10564 Impact of the COVID-19 pandemic on vocal self-perception and predictive factors in teachers

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**Introduction:** Due to the COVID-19 pandemic, teachers needed to adapt to home office teaching. It is necessary to verify the interference of this new teaching modality in the teacher's vocal self-perception.

**Objective:** To analyze the self-perception of vocal effort, vocal signs and symptoms, and vocal fatigue in teachers before and during the COVID-19 pandemic.

**Methods:** Participants were 263 Brazilian teachers working from in-home office during the pandemic (Ethical Research Committee: n.4,059,026). They answered a questionnaire on sociodemographic and occupational data, adapted Borg CR10-BR for vocal effort ratings, Vocal Signs and Symptoms List, and Vocal Fatigue Index. The vocal self-assessment questionnaires were answered twice, considering the period before and during the pandemic.

**Results:** The self-perception of vocal effort, vocal signs and symptoms, and vocal fatigue during the pandemic in teachers was lower than before the pandemic. In comparing outcomes due to vocal complaints, teachers with no vocal complaints presented lower values than those with vocal complaints. Teachers with vocal complaints during the pandemic showed greater self-perception of vocal fatigue. Teachers at early education, elementary, and high schools self-reported more vocal signs and symptoms before than during the pandemic.

**Conclusions:** Teachers report decreased vocal effort and vocal signs and symptoms during the COVID-19 pandemic. Teachers with vocal complaints have a higher perception of vocal effort,

vocal signs and symptoms, and vocal fatigue. The presence of vocal complaints and the variables related to vocal demand during the pandemic are related to the perception of vocal effort, vocal signs and symptoms, and vocal fatigue.

### 10571 Stress and autonomic dysfunction symptoms related to voice in Brazilian university professors during the covid-19 pandemic

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**Introduction:** The Covid-19 pandemic has generated symptoms of stress. Specifically, in university professors, it is known that the voice apparatus is a vulnerable organ that can be influenced by stressful events, may present autonomic dysfunction symptoms. Thus, it is necessary to investigate whether stress is associated with autonomic dysfunction symptoms related to voice during the Covid-19 pandemic.

**Objective:** To analyze the association of autonomic dysfunction symptoms with stress in Brazilian university professors of the Speech Language-Pathology course during the Covid-19 pandemic.

**Methods:** Cross-sectional, approved by the Research Ethics Committee (CAAE number 30580420.4.0000.5546). Fifty-five Brazilian university professors participated in the study, with a mean age of 42 years and 10 months old ( $\pm 8.75$ ), 49 female and six male subjects. The evaluated outcomes were the symptoms of stress and self-assessment of autonomic dysfunction symptoms. The results were inferentially analyzed using binary logistic regression and chi-squared tests ( $p < .05$ ).

**Results:** In 54.54% of the university professors presented stress, with a predominance of psychological symptoms and a higher frequency resistance phase. Stress was a risk factor for the high occurrence of autonomic dysfunction symptoms related (OR 5.841) and unrelated (OR 29.750) to voice. There was an association between the predominance of psychological symptoms and the higher occurrence of autonomic dysfunction symptoms related to voice ( $p < .001$ ).

**Conclusions:** There was an association between autonomic dysfunction symptoms and stress in Brazilian university professors during the Covid-19 pandemic.

### 10572 Characterization of the swallowing of individuals admitted to the intensive care unit of an oncology hospital and its relationship with delirium

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*Ac Camargo Cancer Center*

**Introduction:** Delirium is a consciousness disorder that causes an impact on cognitive functions and, consequently, impaired swallowing.

**Objective:** To characterize the oropharyngeal swallowing of individuals with delirium in intensive care units in an oncology hospital.

**Methodology:** This is a retrospective cross-sectional study with a descriptive character. The medical records of patients evaluated by the speech therapy team and diagnosed with delirium from April 2018 to April 2019 were included in the study, both sexes and aged equal and / or older than 18 years. Descriptive analysis of variables and distribution in absolute and relative frequency was performed.

**Results:** 120 patients who had delirium in the ICU were identified. Regarding the histological type, 43 participants (36%) had adenocarcinoma, followed by carcinoma (33%). Regarding the reason for hospitalization, 30 participants (25%) went for postoperative monitoring, followed by acute respiratory failure. The type of

delirium with the highest occurrence in the ICU was hypoactive in 54 participants (45%). Among the clinical signs evidenced in the speech therapy assessment, cough was present in 32 participants (27%), followed by changes in respiratory rate and heart rate in 17 participants (14%) and a drop in saturation in 13 participants (11%). At the end of the swallowing assessment, he observed in 107 participants (90%) the presence of dysphagia and as a speech-language pathology in 94 participants (78%) the release of an oral diet.

**Conclusion:** The cancer patient with delirium has a high prevalence of changes in biomechanics of swallowing and need for guidance on oral feeding.

#### 10580 Audiological diagnosis in infants who failed in the neonatal hearing screening

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**Introduction:** The Universal neonatal hearing screening enables an early audiological diagnosis. In the audiological diagnosis it is possible to check the family history, study the risk factors associated with hearing loss and execute objective procedures for the detection of alteration in the auditory system.

**Objective:** Analyse the audiological diagnosis from infants who failed retest of the neonatal hearing screening.

**Method:** The research was performed at the Laboratory of Diagnostic Audiology from January/2020 to May/2021. The infants who failed both the neonatal hearing screening and the retest were forwarded to do audiologic diagnosis. For this diagnosis of hearing loss the following procedures were made: anamnesis, transient otoacoustic emissions, evoked auditory brainstem response, broadband tympanometry and acoustic reflex testing.

**Results:** Neonatal hearing screening has a coverage rate of 97.7%. The audiological diagnosis stage revealed a prevalence of 1% of hearing loss in newborns who remained in the Neonatal Intensive Care Unit. About the hearing loss, the results show 50% (3) sensorineural, 16% (1) mixed type and 33% (2) with auditory neuropathy spectrum hypothesis. Regarding the risk indicators for hearing loss, the most prevalent were stay in the ICU for more than 5 days (33.3%), craniofacial anomalies (33.3%) and congenital infection (16.6%).

**Conclusion:** The audiological diagnosis showed a higher prevalence of hearing loss in newborns who remained in the Neonatal Intensive Care Unit, and all cases presented at least one risk indicator for hearing loss.

**Keywords:** hearing loss, newborn, hearing, neonatal intensive care unit.

#### 10582 Is the presence of ECAP intraoperatively a predictor for the prognosis in of Cochlear Implants outcomes in adults?

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**Introduction:** The Electrically Evoked Compound Action Potential (eCAP) has been used to verify the physiological integrity of the first auditory nerve neuron in cochlear implants (CI) users. Electrical stimulation in the first neuron is the precursor for the stimulus to reach the auditory cortex, which allows the recognition of acoustic cues.

**Objective:** To identify whether the presence of intraoperative eCAP has an influence on the outcomes in adult CI users with pre- and post-lingual deafness.

**Methods:** This was a retrospective cross-sectional study approved by the ethical committee of the institution. The results of the intraoperative eCAP and the speech recognition tests after twelve months of the effective CI use were collected from medical records of individuals with pre- or post-lingual deafness who received the CI in adulthood.

**Results:** Data from 121 ears were analyzed, 101 individuals with post-lingual and 20 with pre-lingual deafness. Of this sample, 90.9% had present intraoperative eCAP, being 100% of individuals with pre-lingual and 89% with post-lingual deafness. In individuals with the presence of eCAP, the speech recognition performance was significantly higher compared to those who had absent intraoperative eCAP, either open ( $p=0.0281$ ) or closed set ( $p=0.0046$ ).

**Conclusion:** In individuals with post-lingual deafness who had present intraoperatively eCAP, performance in speech recognition was statistically better than individuals with absent intraoperative eCAP. All adults with prelingual deafness presented intraoperative neural response, but no correlation was found with speech recognition performance.

#### 10583 Influence of the variation of electrode impedances on the neural response at two intraoperative moments and on activation

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**Introduction:** Neural response telemetry (NRT) plays an important role in mapping those with little hearing experience. Impedance telemetry values vary between surgery and activation in both adults and children.

**Objectives:** To verify whether impedances and neural response thresholds (tNRT) change after intraoperative measurements and whether measurements required at intraoperative or at activation have the same correlation with maximum comfort levels (C).

**Method:** Impedances and tNRT of electrodes 16, 11 and 6 were collected from adults and children with straight and perimodiolar Cochlear devices at three times: M1, after insertion of the electrode array; M2, after performing two other tests with current passing between the electrodes; and M3, activation, and the C levels of the first map.

**Results:** Impedances were statistically different between M1 and M2 in children and adults, in both CI models. In adults, there was a significant difference between the tNRT of the three moments in e6. In children, tNRT were similar between M1 and M2 in both types of array, however, were statistically higher than tNRT in M3. There was a strong correlation between tNRT and C levels in e11 in adults. In children, there was a correlation between the tNRT of M1 and C in electrodes 16 and 6 only with the perimodiolar array.

**Conclusion:** The relationship between tNRT and C levels showed different behavior between populations, and, in children, there were differences between the types of electrodes, which indicates caution when using NRT in programming.

**Keywords:** cochlear implants, neural response telemetry, impedance of electrodes telemetry.

#### 10584 Orofacial myofunctional disorders and cognitive disorders in ASD

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Autism Spectrum Disorder is characterized by the presence of persistent impairments in communication, social interaction restricted and repetitive patterns of behavior, interests, or activities. Each difficulty can manifest in different ways, such as comorbidities, in different levels of impairment (syndromes, neurological disorders, sensory processing disorders and cognitive disorders. Language delay is what most attracts parents' attention in the first months of life. The search for professional help culminates in the speech-language clinic, since the speech-language pathologist is the professional responsible for the careful investigation of the communication, which includes the orofacial myofunctional and cognitive aspects that may be affecting speech and language performance. Disorders in OMD may cause respiratory, speech, swallowing and learning impairments, as they involve impairments in sleep, attention,

concentration time, memory, and behavioral, which in cases of ASD, worsen due to the patient's difficulty in express your discomforts and needs. Drug intervention can be decisive in these situations and the differential diagnosis performed by the speech pathologist may be the path that will guide the otorhinolaryngologist in the process. Knowing the importance of early intervention in cases of ASD, at a time called critical to neurological development, this study proposes the development of protocols to investigate the relationship between OMD and cognitive aspects, in order to achieve adequate intervention and a better prognosis.

#### **10585 Implications of the male and female voice on the speech recognition in Cochlear Implant users**

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**Introduction:** Speech recognition tests are important to analyze the benefits of hearing devices, the form and material used can impact the results. In cochlear implant (CI) users, there may be difficulties inherent of limitation of the device as temporal and spectral aspects of the acoustic signal.

**Objective:** To verify if there is a difference in performance in the test of disyllables recorded with male and female voice and if there is a relationship between the difference in performance and the frequency discrimination delta, with the audiometric thresholds or parameters in the CI programming.

**Method:** Adults with post-lingual deafness participated in this study. Thresholds with CI and programming data related to the frequency allocation in the apical channel and stimulation rate were collected. Speech recognition test with disyllabic words with male and female voice and Delta frequency discrimination test were applied.

**Results:** 32 individuals participated in the study. There was no significant difference in the average performance of disyllables with male and female voice. The participants were separated into two groups, identifying 18 who had superior performance with male voice (SM) and 10 who had superior performance with female voice (SF). In this analysis, speech recognition and audiometric thresholds are statistically different between groups. Better audiometric thresholds were observed in SM. The average frequency discrimination delta was 55 Hz ( $\pm 26$ ), with no difference between groups.

**Conclusion:** The parameters related to the allocation of frequency in the apical channel and stimulation speed did not show any correlation with the results.

#### **10587 Association between temporomandibular disorders and emotional consequences of tinnitus, assessed by emotional subscale of tinnitus handicap inventory among teachers**

Luciana Lozza de Moraes Marchiori, Daiane Soares de Almeida Ciquinato, Gloria de Moraes Marchiori, Lyvia Sthefany Godoi Assunção, Paula Vanessa Pedron Oltramari, Vitoria de Moraes Marchiori, Victor Matheus Ortega Fuschiani

Unicesumar; Univali, Unopar

**Introduction:** Several concepts involve of the temporomandibular disorders and its relation with the relevant psychological distress of tinnitus. Total score of the tinnitus Handicap Inventory has the scores of its three subscales (functional, emotional and catastrophic) and 8-item emotional subscale explore the emotional consequences of tinnitus.

**Objective:** To verify the association between temporomandibular disorders and emotional consequences of tinnitus among teachers.

**Methods:** This Cross-sectional study is an integral part of broader research approved by Human Research Ethics Committee, developed with schoolteachers were previously informed about its purpose and procedures. Temporomandibular disorders were assessed through a questionnaire and dental evaluation; hearing

was assessed after application of anamnesis and pure tone audiometry. For those who reported tinnitus, Tinnitus Handicap Inventory was applied. For statistical analysis, non-parametric tests were applied.

**Results:** A total of 83 teachers were assessed, with a mean age (mean age of  $48 \pm 9.7$  years old); 63.9% ( $n = 53$ ) were females. Of the total, 19.3% ( $n = 16$ ) reported tinnitus. There was an association between temporomandibular disorders and emotional consequences of tinnitus ( $p > 0.05$ ).

**Conclusion:** Temporomandibular disorder influence the emotional symptoms of tinnitus among teachers. Through this association, it can be concluded that temporomandibular disorders should be considered an important factor in the assessment and rehabilitation process of tinnitus. Further studies are suggested to confirm the association between tinnitus and temporomandibular disorders with anxiety and depression in teachers. Multi-professional teamwork is important for treatment of these people.

**Keywords:** tinnitus; temporomandibular disorder; teachers; psychological distress.

#### **10590 High-Risk Infant follow-up services**

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The aim of this study is the characterization of healthcare for high-risk infants, seeking to map the healthcare flow in the public healthcare network, demonstrating its positives and negatives. Twenty-two high-risk infants were randomly selected, through an active search in the studied region. Meetings were then scheduled with the reference Family Healthcare Strategy Team (FHST) of these subjects so that the PCA-Tool based questionnaire could be applied and later on to the families. The strengths and weaknesses of the high-risk infant healthcare network were discussed in both the professional and familiar environments. Important differences were observed between the user and professional groups, namely two categories: education and socioeconomic level; which may have influenced the responses to the questions asked. The results point to statistically significant variables, highlighting the difficulty in the coordinating and longitudinal axis of the services provided in the high-risk infant care network in the studied region. The greatest challenge lies on the total coverage of the territory by family health strategy teams, reducing the number of families assisted, in parallel to the expansion of FHSC teams, to the solidification of partnerships with higher educational institutions ensuring differentiated professional training. Emphasis is also placed on training and professional updating through permanent education for all the parties involved in the process to contribute consistently to a more effective and qualified healthcare network.

#### **10591 Food selectivity in cases of autistic spectrum disorder**

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The Autistic Spectrum Disorder is characterized by the presence of impairments in aspects of social communication and behavioral aspects. Among the most common alterations, we can highlight hyper- or hypo-reactivity to environmental sensory stimuli. Food selectivity is characterized by the triad: low appetite, food refusal and lack of interest in food. Food selectivity in cases of ASD has been discussed frequently and is related to a dysfunction in sensory modulation that can lead to hypersensitivity to food stimuli (flavors, odors, textures and even the visual input more intensely than normal, generating discomfort and often triggering airway protective reflexes) or hyposensitivity to food stimuli (the child does not perceive the flavors, smells, textures of food, and can take everything in the mouth, including soil and feces). Food selectivity in cases of ASD can generate significant nutritional deficiencies, facilitating the onset of diseases and aggravating the condition and the therapeutic process. The speech-language pathologist will often be the first professional



to identify sensory disorders that lead to such impairment. This study aims to demonstrate the importance of speech therapy assessment in cases of food selectivity in the ASD, aiming to identify impairments in sensitivity in speech organs, in order to promote a more appropriate therapeutic planning and referrals.

#### 10592 Audiometric profile of open office workers and use of headphones

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**Introduction:** WHO (2021) estimates that one in every four people will have hearing problems by 2050 and calls attention to the need to reduce environmental noise and control the use of sound devices by young people. The modernization of work environments that now have no partitions, the open office, has brought as a consequence the increase in environmental noise, hindering work that requires attention and concentration.

**Objectives:** To characterize the audiometric profile, investigate the auditory effects and headphone use of open office workers.

**Methods:** A descriptive, retrospective study, carried out from the analysis of the audiometries of workers aged between 18 and 40 years who work in an open office.

**Results:** 1502 audiometries were analyzed: 97.6%; presented hearing thresholds within normal limits, analyzed by isolated frequency considering the normal limit of 20 dBHL decreases to 87.18% due to hearing loss at 6KHz and 8KHz; 5.5% and 8.3% notches on the right and left ears. 69.5% used earphones and of these 62.2% at work, an average usage time of 2.23 hours/day.

**Conclusion:** The studied population is adult/young workers exposed in environments with different noise levels and the use of headphones that can cause damage to health. Preventive strategies are important to minimize harmful auditory behaviors, including the promotion of "safe listening." There is a consensus among scholars about the needs for educational programs to promote hearing health.

**Keywords:** noise, hearing loss, worker's health, work environment.

#### 10595 Sentence recognition in noise - age influence

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**Introduction:** Increasing age is a factor related to hearing loss. Elderly people often complain of difficulty in understanding speech in a noisy environment.

**Objectives:** to verify the influence of age on the Noise Sentence Recognition Index (NSRI), and elderly people with and without hearing loss.

**Methods:** It was a cross-sectional, observational and descriptive study. The sample consisted of individuals aged at least 60 years. All were evaluated through anamnesis, otoscopy, pure tone audiometry and NRSI survey, with sentences and noise presented in free field. Based on the correct answers, the NRSI was calculated. Data were analyzed quantitatively, by calculating frequencies and correlations (Pearson's correlation coefficient). The sample calculation showed that 125 individuals would be needed.

**Results:** The sample consisted of 130 elderly, 112 female (86.2%). The mean age was  $71.07 \pm 6.25$  years. Regarding hearing, most had sensorineural hearing loss (75.4%), mild, moderate or restricted to high frequencies. The IRSR ranged between 15.60% and 100% (mean  $57.50 \pm 18.40$ ). There was a correlation between NRSI and age ( $r = -0.19$ ;  $p = 0.023^*$ ).

**Conclusion:** It was found that increasing age was determinant for the lowest NRSI.

**Keywords:** elderly, hearing, speech perception.

#### 10606 Correlation between age, physical exercise and memory

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**Introduction:** Memory difficulties are a frequent complaint in the aging population, especially with increasing age. Recent studies indicate that the practice of physical exercise may be related to better health in general, including cognitive aspects.

**Objective:** To verify the existence of a correlation between age, time of physical exercise and memory.

**Methods:** This is a cross-sectional study. Individuals who performed physical activity in a community center were evaluated. They were evaluated through anamnesis and Rivermead Battery Memory Test (RBMT). Data were evaluated in a descriptive quantitative way.

**Results:** 49 subjects were evaluated, being 43 (87.8%) female. Age ranged between 55 and 82 years (mean  $69.20 \pm 6.04$ ). Schooling (in years of study) was between 0 and 16 years (mean  $8.84 \pm 3.77$ ) and the time of physical exercise practice was  $7.53 \pm 6.6$  years (between less than 1 year and 30 years). The mean score on the RBMT was  $18.67 \pm 3.23$  points. There was a significant correlation between age and RBMT score ( $r = -0.29$ ,  $p = 0.04^*$ ). The time of physical activity practice was not correlated with the RBMT score ( $r = 0.80$ ,  $p = 0.58$ ).

**Conclusion:** In the evaluated sample, the result of the memory test was influenced by age, with no relationship with the practice of physical activity.

**Keywords:** aging, memory, exercise.

#### 10608 Neonatal Hearing Screening (NHS) - portrait of identification, diagnosis and treatment in times of pandemic in a reference hospital for COVID-19

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**Introduction:** NHS aims to early identify hearing loss in newborns in order to minimize its effects.

**Objectives:** Reorganize the flow of care during the pandemic in the areas of identification, diagnosis and treatment.

**Methods:** Since the beginning of the pandemic, identification was maintained with rotation among the audiologists. Diagnosis was resumed in May/20 and treatment in July/20. Infants who required diagnosis were scheduled to undergo a medical consultation, electrophysiological assessment and referral for treatment or discharge in a single day.

**Results:** The period from March/20 to June/21 was considered. A total of 4747 tests were performed, 26.2% using automatic auditory evoked potential, 387 retests and 57 referrals for diagnosis. Of these, 41 babies (72%) attended, 35 with a risk indicator for hearing loss (RIDA). 52% of the exams were normal and the babies with RIDA are kept under follow-up, the others were discharged. Conductive impairment was observed in 28.5%, 2.5% due to malformation. Hearing loss was detected in 19.5% of cases, 2.5% without intervention so far, 5% with discharge without intervention due to the reduced survival prognosis and 12% referred for regulation who returned after 1 month for testing and adaptation of hearing aids. Babies who did not attend were contacted and rescheduled.

**Conclusion:** The reorganization of the flow of care reduced as much as possible the number of babies coming to the hospital. Maintaining NHS, as well as resuming diagnosis and treatment, were essential for us to avoid interrupting the program.

**Keywords:** hearing, neonatal screening, hearing loss.

### 10622 Screening of central auditory processing in patients in Speech Therapy follow-up

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**Introduction:** Auditory Processing is the skill set needed for analyzation and interpretation in the sound patterns. It appears that any difficulty to discriminate, detect, recognize, memorize or understand information presented aurally is called auditory processing disorder.

**Objectives:** Identify possible changes in central auditory processing, through screening in patients undergoing speech therapy and correlate with age and speech therapy diagnosis.

**Methods:** The study was approved by the Research Ethics Committee of the Instituto de Neurologia Deolindo Couto. Cohort study, observational, prospective. A field research was carried out using the Scale of Auditory Behaviors questionnaire. To compose the screening, the Simplified Assessment of Auditory Processing was applied. The study consisted of patients undergoing speech therapy follow-up at the clinic.

**Results:** 37 patients were evaluated, 12 females and 25 males, aged from 5 to 79 years. The evaluation was given by groups, among these, those aged 10 to 19 years had the highest failure. Followed by 5 to 9 years and 60 to 69 years. The groups from the aphasia, dyslexia and speech sound disorder outpatient clinic had higher failures in the evaluative screening test.

**Conclusion:** The Screening of the Auditory Processing through the application of the questionnaire and to the simple test was able to identify changes in the auditory processing in the patients with aphasia, dyslexia and speech sound disorder. It is noteworthy that these results are preliminary and that research is still ongoing.

**Keywords:** audiology, auditory perception, hearing tests.

### 10650 Immediate effects of mechanical vibration stimulus (MVS) of the larynx on acoustic parameters of the voice

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**Introduction:** Mechanical Vibration Stimulus (MVS) associated to muscular physical exercises has been the object of study in sports science for its effects on neuromuscular performance. Improvements in warm-up, flexibility and agility have been reported immediately after MVS.

**Purpose:** Evaluate the immediate effects of MVS located in the larynx associated to humming exercise.

**Method:** 16 professional voice users divided into: Experimental Group (8 subjects) who performed the humming exercise applying mechanical vibration stimulation (G-Life NL 3000) located in the larynx. Control Group: (8 subjects) who performed only the humming exercise. Maximum phonatory time, acoustic analysis and vocal range were used to assess and compare both pre- and post-stimulation groups.

**Results:** Experimental Group showed a significant increase in maximum phonation time (p-value= \*0.011) and improvement in acoustic parameters: Jitter (p-value= \*0.012) Shimmer (p-value= \*0.012) HNR (p-value= \*0.050) and NHR (p-value= \*0.012). The increase in vocal range presented values with a tendency towards significance for the experimental group (p-value = Men: 0.068 / Women: 0.068).

**Conclusion:** Vocal exercises associated to the stimulation of mechanical vibration brought improvements in the acoustic parameters immediately after the intervention for the professional voice users.

**Keywords:** mechanical vibration stimulus, larynx, vocal conditioning, warm-up.

### 10658 Voice and fatigue self-assessment after thyroidectomy

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**Introduction:** Thyroid cancer is the main tumor in the head and neck, and fifth most common in women. Thyroidectomy is the main option of treatment. Voice symptoms such as hoarseness, vocal fatigue and frequency changes are common after surgery.

**Objective:** to verify the self-perception of vocal symptoms and vocal fatigue in individuals undergoing thyroidectomy at three moments.

**Methodology:** This is a prospective and intervention study with 20 participants undergoing thyroidectomy at a University Hospital. Participants completed three self-assessment protocols: pre-surgery (M1), up to eight days after surgery (M2), and three to six months post-surgery (M3). The protocols were: Vocal Symptom Scale, Vocal Fatigue Index and Thyroidectomy-Related Voice Questionnaire. Data were analyzed descriptively and inferentially (p<0.05).

**Results:** In the total and limitation domains of self-assessment of vocal symptoms, the M1 (p<0.001; p<0.001, respectively) and the M3 (p=0.013; p=0.001, respectively) had significantly lower values than the M2. For the physical domain of self-assessment of vocal symptoms, M3 showed statistically lower values than the M1 (p=0.006) and the M2 (p<0.001) assessments. The values of the M3 of self-assessment of general vocal complaints and symptoms were significantly lower than those of the M2 (p=0.001). Regarding gender, men's values were significantly lower than women's in self-assessment of general vocal complaints and symptoms (p=0.044), and vocal fatigue (p=0.035).

**Conclusion:** Vocal symptoms and vocal fatigue are present since the preoperative period of individuals who undergone thyroidectomy. The VoiSS, VFI and TVQ protocols proved to be good self-assessment instruments capable of identifying changes.

**Keywords:** voice; thyroidectomy; fatigue.

### 10660 Hearing screening with steady state auditory evoked potential NB CE-Chirp: A pilot study

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**Introduction:** Otoacoustic Emissions are used in neonates without risk indicators for hearing loss, and when there is any risk indicator, it is necessary to perform the Auditory Evoked Potential, generally using the Brainstem Evoked Potential. In recent years, the clinical applicability of the Steady State Auditory Potential (ASSR) with NB CE-Chirp stimuli has become evident.

**Objectives:** Study the applicability of ASSR in Hearing Screening.

**Methods:** The extension project was executed at the Infant Audiology Ambulatory located in the Northeast, with the ASSR screening. First, an anamnesis was made to know the history of possible adversities. Then, Transient Evoked Otoacoustic Emissions was applied, considering as a pass/fail criterion the presence of response in three frequency bands. The ASSR was performed with air conducted, NB CE-Chirp stimulus, surface electrodes and insert earphones with a correction factor: 35dB for 500, 1000, 2000, 2000 and 4000 Hz.

**Results:** Twenty-two neonates were screened. Seventeen had risk indicators for hearing loss and the stay of more than five days in the Neonatal Intensive Care Units were the most recurrent. Twenty-one neonates were screened with TEOAE, twenty had bilateral responses, only one failed bilaterally. The ASSR was applied to twenty-one neonates; only three neonates failed in the screening, all unilaterally, and were referred for audiological diagnosis.

**Conclusion:** The ASSR screening is a promising technique, although new studies must be produced with a larger sample.

**Keywords:** steady state auditory evoked potential, nb ce-chirp, neonatal hearing screening.

### 10666 COVID-19 pandemic: Challenges and advances in the speech therapy of patients with cochlear implant

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**Introduction:** This report describes speech therapy challenges in patients with cochlear implant during the novel coronavirus pandemic.

**Objective:** The purpose of this report is to evaluate adherence of patients with cochlear implant to speech therapy during the COVID-19 pandemic.

**Methods:** We performed a retrospective cohort of prospectively collected data, including 82 patients with cochlear implant who had been admitted at the otolaryngology outpatient clinic of private referral center between 2019 and 2021. We collected demographic and clinical data from the patients.

We categorized adherence in speech therapy in: (1) continued treatment; (2) partial adherence to treatment (started speech therapy but did not continue doing); (3) adhered to the treatment (4) evasion;

**Results:** The age profile of patients is shown in Table 1.

Table 1. Clinical profile of patients.

CONTINUED PARTIAL ADHERENCE EVASION.

MEAN AGE 28 35 44.

The follow up of patients according to age is shown in Table 2.

Table 2. Follow up according to age.

The main type of speech therapy is shown in Table 3.

Table 3. Main type of speech therapy.

**Conclusion:** The pandemic circumstances created an opportunity to study speech therapy created limited access for most patients. Challenges were also noted in the delivery of virtual speech therapy. More detailed characteristics of cochlear implant patients and speech therapy may inform policy and reimbursement for speech therapy care.

**Keywords:** cochlear implant; covid-19; correction of hearing impairment.

### 10690 Acoustic reflex and peripheral facial palsy: A retrospective study in a teaching hospital in São Paulo – SP

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**Introduction:** Peripheral facial palsy occurs in facial nerve, with unilateral acute partial or total involvement of face. It is among the most common dysfunctions of cranial pairs, with an incidence of around 20-30 cases per 100,000 individuals. More frequent in young adults, with higher occurrence in women. Usually occurs due to viral infections resulting from herpes simplex or herpes zoster, trauma, inflammatory disorders of the middle ear, metabolic diseases and tumors. In 60% of cases, it has idiopathic origin Bell's palsy. Reflex Measurements helps diagnosing and managing disorders of facial nerve. Acoustic reflexes are absent when measured on the affected side in the case of a high facial nerve disorder or middle ear affection.

**Objective:** To analyze acoustic reflex in patients with facial palsy.

**Methods:** Retrospective-descriptive study developed from medical records analysis of January-December, 2019 in Audiology service of a hospital in São Paulo. Reflexes in patients with PFP were analyzed, regardless of etiology.

**Results:** 88 individuals were assisted, 94% of whom were adults between 18-50 years of age. The most common cause was Bell's palsy 65.9% of cases. Among women, the reflex was absent and/or present only at high levels in 71% of cases and present at normal levels in 29%. In male group, absence and/or increase was in 65.6% and presence was obtained in 34.4% of cases.

**Conclusion:** Acoustic reflexes absent, suggesting suprapedicular lesion, was significantly greater in both groups. Presence of the reflex in high levels was important for clinical monitoring, indicating partial recovery of facial nerve.

**Keywords:** bellpalsy, reflexacoustic, facial nerve.

### 10294 Auditory performance of post-lingually deafened adult cochlear implant recipients using electrode deactivation based on postoperative cone beam CT images

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**Introduction:** The use of image processing techniques to estimate the position of intra-cochlear electrodes has enabled the creation of personalized maps to meet the individual stimulation needs of cochlear implant (CI) recipients.

**Objective:** The aim of this study was to evaluate a novel technique of electrode deactivation based on postoperative cone beam computed tomography (CBCT) images in post-lingually deafened adult CI recipients.

**Methods:** Based on postoperative CBCT images, the positioning of the electrodes was estimated in relation to the modiolus in 14 ears of 13 post-lingually deafened adult CI recipients. The electrodes sub-optimally positioned or involved in kinking and tip fold-over were deactivated. Speech perception scores in silence and in noise were obtained from subjects using the standard map and were followed up 4 weeks after image-based electrode deactivation reprogramming technique (IBEDRT). The participants selected their preferred map after 4 weeks of IBEDRT use.

**Results:** There were statistically significant improvements in the speech recognition tests in silence and noise when comparing IBEDRT performance to the standard map. All participants elected the IBEDRT as their new preferred map.

**Conclusions:** IBEDRT is a promising technique for fitting CI recipients and minimizing channel interaction increased by the positioning of the electrodes sub-optimally placed, thereby improving their auditory performance. We propose a novel electrode deactivation technique based on postoperative CBCT imaging, with a limited number of deactivated electrodes and a low-dosing scanning which could be applied for clinical routine.

### 10295 Development of an internet-based system for hearing aid orientation and tele monitoring

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Frequently, the unsatisfied individuals or those who have any difficulty in listening may evade using their hearing aids. Teleaudiology itself has been valued among those who need hearing aids because it relies on reusable tools that work as a complement in the audiological appointments.

**Objectives:** To develop a web-based tool that provides the patients with the orientation they need remotely, as well as help the audiologists to assist their patients' performance, which may guarantee the correct hearing aids usage. Also, to test this tool in a pilot study.

**Methods:** We develop our system (named "I do listen, but I do not understand") based on literature recommendations for layout, design, and content in counseling and orientation. We tested our strategy with 43 adult-to-elderly individuals, experienced and inexperienced hearing aid users. The remote follow-up was conducted, they answered the SSQ-12 questionnaire, which intended to assess their hearing. Then, we followed those subjects for eight-to-twelve months. In the end, we checked the usability of our system through the System Usability Scale questionnaire.

**Results:** After the remote follow-up, we observed better hearing performance in the speech hearing domain compared with the other domains of the SSQ-12 and increased total time of hearing aids usage.

**Conclusions:** The system we developed "I do listen, but I do not understand" seemed to be an effective tool to orient and remotely follow hearing aids users, increasing the time and consistency of the device usage, which tends to improve their hearing performance. Hearing aids. Counseling. Telehealth. Patient satisfaction. Telemonitoring.

### 10301 Swallowing and breathing clinical findings in systemic sclerosis: A case study

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**Introduction:** Systemic Sclerosis (SSc) is an autoimmune disease of the connective tissue, chronic and with variable progression, resulting from the excessive deposit of collagen and glycosaminoglycans in multiple systems, including swallowing and breathing.

**Objectives:** To describe the clinical findings of swallowing and breathing in individual with SSc.

**Resumed report:** Single case study, Ethics Committee 2.670.111. Female, 53 years, SSc confirmed by clinical and laboratory examination (ANA > 1/640) since six years ago, presence of non-invasive and infrequent ventilatory support, O<sub>2</sub> saturation varying between 90% and 97% during the day and with complaint of swallowing disorders. Clinical swallowing assessment with different volumes and consistencies of food with severity scale, American Speech-Language Hearing Association - National Outcomes Measurements System ASHA-NOMS for dysphagia and Functional Oral Intake Scales (FOIS) were applied. Breathing assessed using manovacuometry, peak expiratory flow and spirometry. Oral phase of swallowing had impairment with incoordination between breathing and swallowing in all food consistencies. There were no clinical signs of laryngeal penetration and/or aspiration. Mild dysphagia, ASHA NOMS level 6 and FOIS level 8. In the respiratory evaluation there was a decrease in the values of manovacuometry (inspiratory pressure = -40 mmH<sub>2</sub>O and expiratory pressure = 35 mmH<sub>2</sub>O), decrease in the peak expiratory flow (200 L / min). Expirometry showed a 60% FVC, 73% FEV<sub>1</sub> and 119% FEV<sub>1</sub> / FVC.

**Conclusion:** In this individual with Systemic Sclerosis, the oropharyngeal dysphagia and the restrictive ventilatory disorder were mild, but with decreased respiratory muscle strength.

**Keywords:** swallowing disorders, dysphagia, respiration, scleroderma systemic, case reports.

### 10324 Sequential frequency ability in children with complaints of school difficulty

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**Introduction:** Decoding and encoding verbal and non-verbal sound information is important for learning.

**Objective:** To analyze the frequency sequential ability in children with school difficulty complaints.

**Methods:** Basic audiological evaluation and a temporal ordering test (Frequency Pattern Test), applied in two response conditions (verbal e non-verbal) in 24 children (08 to 11 years old), of both genders, complaining of school difficulty. Research approved by the Research Ethics Committee, under protocol 1852478.

**Results:** The mean age was 8,9 years and male gender was predominant (n=18). The children were divided into two groups: Group A (8-9 years old) and Group B (10-11 years old). There was no statistically significant difference when comparing the two groups in relation to gender and age, nor in relation to the type of response requested (imitation or naming). The 8-9 years old children in the naming task. The mean value (%) for Frequency Pattern Test performance was below the normal range in both task types.

**Conclusion:** Although there was no difference between the two groups, the results were below what was expected for the age groups, showing that children with learning disabilities may have alterations in the temporal processing of sounds assessed by the Standard Frequency Test.

**Keywords:** auditory perception; hearing; learning; children.



### 10334 Incidence of changes in swallowing in patients submitted to total laryngectomy

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**Introduction:** Laryngeal cancer is the most common form of cancer on head and neck, being the second most common tumors in the respiratory tract worldwide. Total laryngectomy consists of the total removal of the larynx, causing anatomical and functional changes.

**Objective:** To evaluate the occurrence and findings related to swallowing disorders in total laryngectomized patients.

**Data Synthesis:** The search for scientific articles was carried out by two independent researchers in the Medline (Pubmed) databases, LILACS, SciELO, Scopus, WEB OF SCIENCE and BIREME without restrictions on language, location and time. The systematic review was conducted in accordance with the recommendations of the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA). Studies that scored  $\geq 6$  points according to the qualitative scoring protocol proposed by Pithon et al. (2015). Head and neck cancer is one of the most recurrent cancers in Brazil mainly due to the use of tobacco and alcohol. It is also a disease of great impact worldwide. Treatments for this disease can lead to difficulties in the voice, speech articulation and swallowing requiring speech therapy.

**Conclusion:** due to the total removal of the larynx and consequent anatomical change, the occurrence of changes in swallowing was frequent, with great impact on the patient's life, both physical and psychological.

### 10350 Impact of weight and BMI changes on auditory symptoms in university professors during the COVID-19 pandemic

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**Introduction:** Various studies have pointed out that changes in lifestyle habits could influence well-being and hearing. However, there is a lack of studies on the prevalence and probable associations of hearing, weight and Body Mass Index in university professors during the COVID-19 pandemic.

**Objective:** to verify the impact of weight and Body Mass Index changes on auditory symptoms in university professors during the COVID-19 pandemic.

**Methods:** In this cross-sectional study, professors answered an online semi-structured questionnaire (to which the consent form was appended) with 27 questions related to health, hearing, weight and Body Mass Index changes and during the pandemic. The link was sent via e-mail.

**Results:** Altogether, 74 professors who comprise the faculty of the undergraduate program at the institution where the research was conducted were assessed. Their mean age was  $42.1 \pm 8.9$  years; 68.9% (N = 51) were females and 31.1% (N = 23) were males; 47.3% were well-nourished (N = 35) and 16.2% (N = 12) were obese; 20.3% (n = 15) reported worsened hearing due to remote classes. Significant differences were found between those with auditory symptoms (G1: worsened hearing; G2: unchanged hearing) regarding Body Mass Index. The chi-square test showed an association between the groups and Body Mass Index classification (P = 0.007) – those with worsened hearing (G1) were more overweight.

**Conclusion:** This study revealed an association between worsened hearing and Body Mass Index in professors due to remote and distance teaching during the COVID-19 pandemic.

**Keywords:** body mass index; auditory symptoms; professors; COVID-19.

### 10370 Tinnitus interference in the concentration of individuals with chronic tinnitus

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**Introduction:** Tinnitus has been described as a symptom that interferes with attention, concentration and mood, negatively impacting the daily lives of individuals.

**Objective:** To compare the interference of unilateral or bilateral chronic tinnitus in the concentration of affected individuals.

**Methodology:** Cross-sectional and observational study, carried out in a specialized outpatient clinic. Data for the study were collected at the time of anamnesis and audiological assessment. This study was submitted and approved by the Ethics Committee of the institution - Protocol 06027. For data analysis, the level of significance adopted was 5% (p<0.05). The test performed to compare the groups was the Student t test.

**Results:** 641 individuals participated in this study, with a mean age of  $59 \pm 13$  years, 409 (63.8%) being female. Bilateral tinnitus was reported by 375 (58.5%) of the participants and unilateral tinnitus by the others, 121 (18.9%) in the right ear and 145 (22.6%) in the left ear. Of the total number of participants, 324 (50.5%) reported that tinnitus did not interfere with concentration. When comparing the presence of unilateral or bilateral tinnitus and interference in concentration, no significant differences were observed (p=0.56).

**Conclusion:** In this study, we observed that concentration difficulties with the presence of chronic tinnitus are not related to the location of tinnitus (unior bilateral).

### 10393 Meningitis in the elderly population in Brazil

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**Introduction:** With advancing age, the physiological changes grow increasingly worse, favoring the severity of possible infections in older adults. People older than 60 years are constantly subject to underlying diseases with associated symptoms, which may be mistaken for those of meningitis.

**Objectives:** To present scientific evidence, based on a narrative literature review, of meningitis in the older Brazilian population.

**Data Synthesis:** The articles were searched in the SciELO, LILACS, MEDLINE (PubMed), Scopus, BIREME, and Web of Science databases, besides a search for gray literature in Google Scholar. The studies were selected with a combination based on the Medical Subject Headings (MeSH), conducted according to the PRISMA recommendations (2015). The quality of the studies included in the research scored 6 points or more, as assessed with the qualitative grading protocol proposed by Pithon et al. (2015). The predominance of non-10 valent pneumococcal conjugate vaccine (PCV10) serotypes stands out in the invasive pneumococcal disease in the older population in strains circulating three to five years after the PCV10 was introduced in Brazil. A long interval between the onset of symptoms and the diagnosis of the disease indicates a worsened prognosis and increased lethality in the older Brazilian population.

**Conclusion:** Meningitis in the older population is associated with greater diagnostic difficulty, neurologic severity, clinical complications, and increased mortality.

### 10394 Elastic bandage as a complementary method in the speech therapy treatment of temporomandibular dysfunction: An electromyography analysis

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**Objective:** To analyze the effectiveness of Therapeutic Elastic Bandage in the treatment of patients diagnosed with

Temporomandibular Disorder (TMD) through surface electromyography (EMGs).

**Methods:** Experimental intervention study. The sample includes 16 women diagnosed with TMD and aged between 19 and 35 years, subdivided into two groups: 08 composed the "Without Bandage Group" (SB), who performed the usual manual therapy preconized for TMD; and 08 were included in "With Bandage Group" (CB) that used bandages associated with usual therapy. After the diagnosis of TMD, the individuals were submitted to evaluation with EMGs of the masseter and temporal muscles in rest position and during the tasks of maximum voluntary contraction (MVC) and habitual mastication. After the preestablished therapy period, a new electromyography test was performed.

**Results:** In the pre-treatment, both groups showed similarity in muscle electrical activities. After intervention, an increase in electrical activity was observed in the MVC task for all groups, also for mastication in the right muscles of all groups and a decrease in electrical activity in the rest task for both groups.

**Conclusion:** For this population, both groups showed a reduction in electrical activity at rest, acting on muscle relaxation and an increase in electrical activity for CVM activity, showing balance after therapy, with or without bandage.

#### 10396 Characterization of the child population referred for audiological diagnosis in a hearing health service

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**Introduction:** Early diagnosis of hearing loss in children, carried out in the first months of life, together with intervention, can be considered determining factors for the development of auditory and language skills. Factors such as the effective use of the electronic device, the quality of amplification, the expectations of family and their involvement with the treatment are important agents for the child's prognosis, as well as aspects related to socioeconomic, cultural and academic conditions.

**Objective:** The aim of this study was to investigate and characterize the population referred for audiological diagnosis, from the procedures established in the Hearing Health Network of the Health Department of the city of São Paulo, from 2014 to 2018.

**Method:** The research was conducted with the medical records and scheduling data of children with suspected hearing loss referred for audiological diagnosis attended at the Child Hearing Center. The subjects were characterized from a demographic, audiological, socio-educational point of view.

**Results:** An analysis of the places used was performed. Age distribution was made at the beginning of the diagnosis in the service to identify the age at which children are referred to the specialized service, gender, region of residence and completion of diagnosis.

**Conclusion:** The number of children assisted increased when comparing the years 2014 and 2018; 59% of the children attended are boys over the 5 years of analysis; more than 50% of children come from the southern region of São Paulo; approximately 35% of children referred for audiological diagnosis have sensorineural hearing loss.

#### 10404 Speech therapy in palliative care in the pediatric ICU

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**Introduction:** Pediatric patients in palliative care have specific clinical conditions that require prolonged intensive treatment from the perspective of a multidisciplinary team, which includes speech therapy.

**Objective:** To describe the speech therapy intervention of a pediatric patient in palliative care in the ICU.

**Case report:** Patient, one year old, male, truncus arteriosus, interventricular communication, microcephaly and malformations in

the lower limbs, tracheostomized, invasive mechanical ventilation in the SIMV(PC)+PS mode, in palliative care with a condition of refusal to eat. Speech therapy sessions were carried out to maintain the sensitivity, structures and functionality of swallowing, promoting safe training for oral feeding together with the patient's mother, providing the practice of motherhood. The interventions involved tactile-thermal-gustatory stimulation and oral training with a speech therapy team with pasty food, such as salty porridge or fruit porridge. In the face of refusal, there were recurrent episodes of nausea, cyanosis and fluctuations in saturation, however, there was a gradual improvement in the acceptance of oral diet, even with the use of tube, and later, gastrostomy. From the advance in diet acceptance, the therapeutic focus became cognitive stimulation, favoring language development, using auditory and visual stimuli resources. The patient continues in speech therapy receiving cognitive stimuli.

**Conclusion:** When solving complaints such as refusal to eat, promoting cognitive development and the practice of motherhood even in the hospital environment, speech therapy intervention effectively fulfills its role in palliative care, optimizing the quality of life of the patient.

**Keywords:** palliative care, pediatrics, speech therapy.

#### 10446 Student speech therapy week - Academic Center Intervention from the students' academic perspective

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**Introduction:** The Academic Center of Speech Therapy of a Federal University in a Northeastern capital, created the Student Week of Speech Therapy (SEFON), which, together with the Department of the course, promoted a moment of integration, learning and relaxation for students and the entire academic community. The event appears as a form of commemoration and mention of the speech therapist's day - December 9<sup>th</sup>, since graduation.

**Objectives:** Create an annual event for students of the Speech Therapy course that impacts their academic prospects.

**Methods:** In its third edition, a SEFON brings the theme: The student as the protagonist of their training, with internal and external teachers, as well as presentations of work and workshops. Result: The event promoted interaction with students from the beginning to the last period of the course, as well as students from another campus. The works in oral exhibition and poster promoted teaching and sharpened the academic community's desire for research, even counting on awards.

**Conclusion:** The Academic Center of Speech Therapy has created an annual tradition among students and teachers, which has its 3rd consecutive edition, combining the student movement with encouraging research and promoting leisure for the event's participants.

**Keywords:** speech therapist day, academic center, student event.

#### 10498 Manual for pharyngeal bulb molding during nasoendoscopy

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**Introduction:** The pharyngeal bulb has the function of providing the possibility of velopharyngeal sufficiency to improve speech in cases of velopharyngeal dysfunction. It interacts dynamically and functionally with the pharyngeal walls, sealing the passage of air and acoustic energy to the nasal cavity during the production of oral sounds. For an adequate visualization of the velopharyngeal structures and functioning during speech, the molding of the pharyngeal bulb must be done through nasoendoscopy.

**Objective:** To develop a manual of guidance for molding of pharyngeal bulb during nasendoscopy for the treatment of velopharyngeal dysfunction.

**Methods:** Relevant information with regard to the pharyngeal bulb molding reported in the literature, as well the one observed in clinical practice was collected. After defining the topics to be observed during molding, examples were separated (on video) of all topics for the preparation of the manual.

**Results:** The manual was prepared in power point presentation format, offering graphic models and video demonstrations on the following aspects: size and type of velopharyngeal gap, height of the bulb in the velopharynx during speech, location where the pharyngeal walls touch the bulb, and occurrence of velopharyngeal closure with the use of pharyngeal bulb.

**Conclusion:** The manual can help the speech pathologists and dentists in the molding of a pharyngeal bulb during nasendoscopy.

**Keywords:** cleft palate, velopharyngeal insufficiency, pharyngeal obturator.

#### 10500 Tinnitus: A group intervention proposta for patients from the Brazilian public health system

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**Abstract:** ABISSAMRA, R.G.C.- Tinnitus: A group intervention proposal for patients from the Brazilian public health system. São Paulo, 2020. Tese de Doutorado. Universidade Presbiteriana Mackenzie.

This study presents a proposal for group intervention to patients complaining of tinnitus and users from the Brazilian public health system.

**Purpose:** To verify the effectiveness of group counseling as a form of intervention, as well as to evaluate the quality of life of individuals before and after treatment.

**Methods and Procedures:** 70 patients complaining of tinnitus and normal auditory thresholds participated in the study. They were divided into 2 groups, the Intervention group with 50 individuals and the Control group with 20 subjects. All filled out the Tinnitus Handicap Inventory (THI) instruments and the Visual Analog Scale (VAS) before and after intervention. The result of the pre and post THI of the Intervention group showed a significant difference compared to the Control group, which represents an improvement in quality of life. The comparison of VAS before and after intervention sessions also showed a significant difference, indicating the benefit of group orientation as a form of treatment for tinnitus.

**Conclusion:** Group guidance proved to be a valid and very accessible instrument as a form of treatment for patients complaining of tinnitus users of the Unified Health System.

**Keywords:** tinnitus, audiology, intervention, health literacy.

#### 10502 Speech therapy approach to scalpel victims: An Amazonian reality

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*Fonocare*

Scalping is a traumatic injury caused by partial or total avulsion of the scalp, being common in the riverside population of the Amazon.

**Objective:** To describe the importance of speech therapy intervention for the patient victim of scalping. Methodology: Qualitative, descriptive study, with a single case study approach.

**Results:** M.S.V, 47 years old, victim of a boat accident, was admitted to a referral hospital and underwent a craniofacial surgical procedure, evolving to an adult ICU with IOT and NS, spending 10 days. She was discharged from the clinic and was referred to her city, Cametá/PA, for a rehabilitation process. Started therapy with a total of 6 sessions, 2x/week, based on cervical-facial manipulation, intra and extra oral digital stimulation, such as ice and sponge to stimulate the facial fibers, in order to restore sensitivity; in addition, digital

laryngeal stimulation with passive swallowing techniques and speech and breathing exercises associated with voice therapy. After the 5th session, satisfactory oral cavity amplitude, adequate facial sensitivity, resonant pattern and speech intelligibility were obtained, as well satisfactory masseter and buccinator muscle tone and strength.

**Conclusion:** The speech therapy treatment in victims of scalping is essential for the proper return of orofacial mobility, as well as the swallowing pattern and quality of life that emerged in all aspects, both physical and psychosocial. Thus, further studies are needed on speech therapy in cases such as these, in order to integrate knowledge and provide qualified and effective intervention to the victim.

**Keywords:** speech therapy, scalping, orofacial myofunctional motricity.

#### 10530 Biosafety training in speech therapy for interns in the fight against COVID-19: Pilot project

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*Universidade Federal de Sergipe*

**Introduction:** According to ANVISA (2020), Biosafety is a "safety condition achieved by a set of actions defined to prevent, control, reduce or eliminate risks inherent to activities that can compromise human, animal and environmental health". According to the Biosafety Manual of the Federal Council of Speech Therapy (CFFa, 2020), we have in the speech therapy environment, the critical and semi-critical areas, being essential for teachers, students and technicians to adopt the Standard Precautionary Measures, and obtain knowledge of the verification standards of the Regulatory Standard (NR) 32 in the MTE.

**Objective:** Train internships about fundamental standards and actions for the control of contamination in face of the global pandemic of COVID-19 (SARS-Cov-2).

**Material and Method:** The Internship Committee of the University's Department of Speech Therapy, located in Northeast Brazil, created a pilot project to train students for the return of the internships: clinical, hospital and Basic Health Units, as an action plan against the pandemic. A hybrid training was conducted with theoretical classes taught by professors, with the support of three student monitors, in addition to face-to-face training in Biosafety with small groups about donning and doffing Personal Protective Equipment used in internships.

**Results:** 74 students participated in the extension action, from the 5<sup>th</sup> and 7<sup>th</sup> periods, 95.1% of the students reported satisfaction with this initiative and felt more prepared and welcomed for the internships.

**Conclusion:** Biosafety training was essential to minimize health risks and provide greater autonomy and security for the interns.

**Keywords:** biosafety, COVID-19, health promotion.

#### 10540 Technological advances in children's hearing prosthesis in Brazil: A literature review

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*Universidade Federal de Sergipe*

**Introduction:** The technology developed in the last centuries has made possible that people from different ages, types and degrees of hearing loss to have access to the hearing through the devices used in auditory (re) habilitation, which starts from the audiological diagnosis, aiming greater gain and comfort to the patient.

**Objective:** Identify, using the literature review, the hearing technological advances that are available in Brazil and are effective for the children population.

**Data Synthesis:** Currently, the Behind The Ear Sound Amplifier have a receiver in the canal, a thin tube and a silicone olive, in addition to waterproof models. Regarding the Cochlear Implant, the hybrid technology, available in Brazil by the Med-EL (DUET) and Cochlear (Nucleus HYBRID) companies, it offers electroacoustic stimulation in just one device. Regarding bone conduction hearing implant, the

Oticon Medical developed the MIPS technique, which allows the abutment through a minimal opening, without any scar. As Much for Middle Ear Prosthesis, the Carina Implant model, from Otologics company, has an algorithm capable of canceling ambient noises, such as noises from the user's own body, which reach the microphone. The Envoy's Esteem uses piezoelectric technology to replace the microphone. It is worth mentioning studies to perform auditory brainstem implants in children with auditory nerve malformation, or those who are not fit for Cochlear Implant.

**Conclusion:** According to the hearing technologies mentioned, through the literature review, the possibility of treating hearing loss is evidenced, from the way they affect the external ear until the auditory nerve.

#### 10543 Hearing aids in children in Brazil: A systematic review

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*Universidade Federal de Sergipe*

Environmental sound amplification is a resource that allows the hearing impaired to minimize the hearing difficulties of these subjects, qualitatively affecting their quality of life.

**Objective:** To verify at what age prosthetization in children starts in Brazil.

**Methods:** Systematic review registered in PROSPERO (CRD42021232561) following the PRISMA recommendations based on the search for a scientific collection with the help of the keywords "auxiliares de audição", "aparelho auditivo", "implante coclear", "fonoaudiologia", "deficiência auditiva", "perda auditiva", "hearing aids", "cochlear implantation", "hearing sciences", "hearing loss", "audifonos", "implantación coclear", "fonoaudiología", "pérdida auditiva" in the LILACS, SciELO, PubMed, Science Direct, SCOPUS, Web of Science, Open Gray, and Open Access Theses and Dissertations virtual databases. Based on the definition of eligibility criteria, the collection was selected and those included were synthesized, read, and interpreted qualitatively.

**Results:** 2,751 records were identified after the search in the aforementioned databases and ten were selected. The prosthetization ages ranged between 3 and 142 months of life, occurring on average at 30.97 months in Brazilian children, that is, it occurs around two and a half years, and it can happen up to 4 and a half years (because of the standard deviation).

**Conclusion:** Hearing aid, whether through individual sound amplification or cochlear implant, is late in Brazil and deserves greater attention from public managers, health professionals, and particularly speech therapists so that this reality can be changed.

#### 10552 Study of auditory and visual sensory responses in infants aged 6 to 15 months with and without back and foot support

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**Introduction:** Multisensory integration can be defined as the processes used by humans to respond to convergent inputs of multiple sensory modalities. The integration of auditory and visual stimuli is of particular interest due to their role in speech perception that has a visual and an auditory component.

**Objectives:** To evaluate auditory and visual sensory responses in infants aged 6 to 15 months with and without back and foot support.

**Methods:** The present research proposes a cross-sectional analytical observational study. All infants in our sample were submitted to Universal Newborn Hearing Screening and the Red Reflex Test. Seventy infants were submitted to auditory behavior evaluation and evaluation of visual acuity (Lea Gratings) in two situations with and without back and foot support proposed by Bullinger Method. We evaluated the response of infants in each auditory location/visual

orientation in relation to latency, that is, the moment when the auditory/visual stimulus is given by the researcher to the moment of auditory/visual response by the infant. Totalized 12 sound locations and 4 visual orientations.

**Results:** Statistical significance in auditory variables was found. Comparing the median from visual and auditory tests between categories with and without support, we found clinical significance.

**Conclusions:** The strategy of back and foot support is an alternative that can be used in clinical, home, hospital and educational practice to favor learning as well as the input of sensory responses.

**Keywords:** psychomotor performance, visual perception, auditory perception, infant.

#### 10563 Communication, quality of life in voice and predictive factors in total laryngectomized patients

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**Introduction:** Total laryngectomy (TL) is indicated for the treatment of advanced laryngeal cancer, and consists of the complete removal of the larynx, causing loss of laryngeal voice and impairments in communication. Understanding the quality of life (QL) associated with it still deserves attention.

**Objective:** To characterize non-laryngeal communication and analyze the voice-related QoL of patients undergoing TL. **Methodology:** cross-sectional study approved by CEP under no. 2906/20, consisting of a survey of data from medical records of patients who underwent TL between 2009 and 2019 in an oncologic hospital and subsequently the response to the Voice Handicap Index (VHI) and Voice Related Quality of Life (QV) questionnaires, translated and validated to Portuguese.

**Results:** 29 participants took part in the study, most (65.52%) communicating via tracheoesophageal prosthesis (TEP). The mean score in the total score in the QV protocol was 64.8 and 36.25 in the VHI, indicating a quality of life close to normal and mild vocal handicaps. It was observed that the functional domain and the total score of QV were favored by the use of the PTE. Participants who underwent speech therapy follow-up had better QoL in the socioeconomic domain and total score. The time aspect between radiotherapy treatment and salvage surgery was inversely correlated with the functional domain and the total QoL score.

**Conclusion:** Non-laryngeal communication was predominantly characterized by the use of PTE. This and the speech therapy follow-up were associated with better QoL in the functional and socioeconomic aspects, respectively, and both to the general aspect.

#### 10565 Risk indicators for hearing loss in Brazilian children: Systematic review

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Hearing loss compromises human interaction in different contexts, and an early diagnosis is essential for selecting the appropriate conduct, minimizing damage.

**Objective:** To verify which are the most recurrent risk indicators in hearing loss in Brazilian children.

**Data Synthesis:** Based on the design of the research's guiding clinical question, the keywords "indicadores de risco", "perda auditiva", "surdez", "criança", "neonato", "recém-nascidos" and "Brasil" were selected to search different virtual databases, without restriction on language and year of publication. Based on these eligibility criteria, the collection was selected and the works that met them were read in full and qualitatively analyzed, verifying the risk of bias. From an amount of 439 collections, nine articles were qualitatively analyzed, underscoring that the most prevalent risk indicator for hearing loss was the stay in Neonatal Intensive Care Units. The risk indicator for hearing



loss correlated with the “failure” outcome in the hearing screening was mechanical ventilation, and the risk indicator for hearing loss correlated with confirmation of hearing loss was the suspicion of a syndrome.

**Conclusion:** Over the years, one can observe how research on risk indicators for hearing loss has great importance for the hearing health of newborns who present them. There should be greater encouragement to research that focuses on finding the causes of hearing loss and its type for each risk indicator to identify changes that harm the auditory system.

**Keywords:** hearing loss; deafness; child; infant, newborn; Brazil.

**10568 Risk and protective factors for language development**  
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**Introduction:** The first thousand days of life are extremely important for the development of the human being. The sooner the risks are identified, the better the effectiveness of the treatment.

**Objectives:** Correlation between two screening protocols: Protocol for Identification of Risk Factors for Language and Speech Disorders and Protocol for Language Development.

**Methods:** The protocol of 500 children, from 1 to 60 months of age, who attended the FMUSP in the last 5 years were analyzed.

**Results:** In the online database, 255 protocols were found, and only 144 were completely filled. Risk factors found in the univariate analysis were: gender, race, income classification, family history, being born prematurely and/or with low birth weight, pregnancy complications, diagnosed illness, hospitalization, orofacial motor disorders and being exposed to a situation of violence. Schooling of the mother and the father were protective factors. However, in the multivariate analysis, some factors no longer have statistical significance. The risks were male gender, low income classification, the prematurity and/or low birth weight. The protective factors were not having family history of speech and/or language disorder and the time that the parents spend with the child.

**Conclusion:** Speech therapy is an evidence-based science, and therefore it is extremely important that the data collected is reliable to be used in research, where the results imply in the care of the subject, creation and reorganization of public health. The protocol allowed the identification of risk and protective factors for language development.

**10569 Procedures used in the speech-language pathology evaluation of patients with chronic cough: A scoping review**

Maria Christina Bussamara Casmerides, Mara Behlau, Vanessa Veis Ribeiro, Rebeca Cardoso da Silva, Rodrigo Dornelas, Lucas Tito Pereira, Maria Victória dos Anjos Souza  
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**Introduction:** Cough is a reflex act of the larynx, considered chronic when it lasts longer than eight weeks. The speech-language management of cough is a recent approach. It is necessary to understand which procedures have been used to evaluate cough in order to assist the SLP to make good clinical decisions.

**Objective:** To map the procedures used by SLP to evaluate chronic cough.

**Data Synthesis:** A scoping review of the literature was developed to answer the clinical question: “What are the procedures used in the SLP evaluation of patients with chronic cough?”. An electronic (MEDLINE, Cochrane Library, EMBASE, Web of Science, SCOPUS and LILACS) and manual (Journal of Voice, Chest, Thorax, BDTD, Open Grey, Clinical Trials, and scanning in the references of the included studies) search were performed, with a specific source search strategy. Data analysis was descriptive by frequency. A total of 1,325 studies were found, of which 12 were selected. Studies

were published between 2006 and 2020, with a higher frequency of Australian contributions (75%). The size of the samples ranged from 18 to 112 participants, the mean age ranged from 46.9 to 62.6 years, with higher frequency of both sexes (91.6%) in the studies. The evaluations used were: self-assessment (75%), aerodynamic evaluation (66.67%), auditory-perceptual analysis of voice (58.33%), acoustic analysis of voice (41.67%), frequency and threshold of cough (41.67%), and electroglottography (25%).

**Conclusion:** Subjective instruments of specific evaluation were used more frequently, while specific objective instruments are used infrequently. Complementary evaluations, such as vocal assessment have been commonly used.

**10573 Voice handicap index in cancer patients**  
Larissa Vidal Ferreira, Elisabete Carrara de Angelis, Camila Barbosa Barcelos, Ana Paula de Assis Oliveira, Rômulo Heitor Melo de Sá  
*AC Camargo Cancer Center*

**Introduction:** The impact of cancer and its treatment directly influences the quality of life and in this context the voice must be considered an indicator of health or disease, furthermore, subjects with severe diagnoses and reserved prognoses can show a positive attitude towards dysphonia. The Voice Handicap Index - 10 (VHI-10) is the protocol used for vocal self-assessment, it is necessary to study the oncology population regarding application of the VHI-10 so that the speech therapy treatment is properly directed to your expectations.

**Objective:** To characterize the VHI-10 in cancer patients with dysphonia.

**Method:** Retrospective, descriptive study, approved by Research Ethics Service (RES - n. 2868/20), with 449 individuals diagnosed with organic dysphonia obtained between 2016 and 2020, Clinical and epidemiological data collection, vocal auditory perceptual analysis (GRBAS) and responses to the VHI-10 were collected.

**Results:** 339 dysphonic individuals were included, which 58.3% were female, with a mean age of 55.1 years. Head and neck cancer was the most frequent (67.3%). The most were submitted to surgery (79.3%), without adjuvant treatment. 41.3% were classified as having a moderate global degree of dysphonia and the average of VHI-10 was 18.15 points. Total laryngectomized patients had worse vocal handicap when compared to the group submitted to resection of the mouth, oropharynx or salivary gland ( $p = 0.010$ ).

**Conclusion:** The average of VHI-10 for dysphonic cancer population is 18.15 points, which does not differ statistically according to each oncological etiology. Those with a severe global degree of dysphonia have a worse vocal handicap.

**10577 Voice, speech, culture and media - workshops to provide speech therapy activities in the academic community**  
Estér Almeida Sales, Carla Suzanne Pereira Sousa  
*Universidade Federal de Sergipe*

**Introduction:** The speech therapist is the health professional who works in the process of human communication, the extension action entitled Voice, Speech, Culture and Media intends to create workshops to promote actions for the public to understand about their vocal instrument and do the best use it for every goal you want.

**Objectives:** The objective of this work was to provide speech therapy activities in university extension, aiming at the training and qualification of human resources in inter-institutional cooperation actions with related areas, such as health, education, communication and culture, aiming at improving the quality of life and services provided to society through the public university.

**Methods:** Three workshops were created with the themes: Musical Principles, To Talk Well and Vocal Techniques, with internal and external members who carried out theoretical and practical exposition on the subjects, developing them in a clear and objective way. The project had thirteen students, four professors and three external members, in addition to the support of Rádio Universitária for dissemination and development of the action.

**Results:** The extension action had 60 listeners, who showed the experience of vocal techniques, auditory development in the practices of musical principles and social integration, in addition to prior knowledge of singing and spoken voice with development of social and professional communicative competence.

**Conclusion:** The academic community that participated in the extension action demonstrated satisfaction with the workshops, reporting the achievement of the objective and that they aspired to the expected learning.

**Keywords:** voice, speech, culture.

#### 10578 Efficacy of speech language pathology management in chronic cough: Systematic review and meta-analysis

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**Introduction:** Speech-language pathology management has been used for cases of persistent chronic cough to medical treatment. It is necessary to understand the efficacy of this type of intervention in patients with chronic cough.

**Objectives:** To analyze the efficacy of speech-language pathology management in chronic cough.

**Data Synthesis:** This is a systematic review with meta-analysis that answered the clinical question: "In adult individuals with chronic cough, what is the effect of the use of speech-language pathology management on the frequency and threshold of cough, self-assessment and vocal quality, compared to another intervention?" (PROSPERO 2021/CRD42021226729). An electronic search (MEDLINE, Web of Science, EMBASE, SCOPUS, Cochrane Library and Lilacs) and a manual search (Journal of Voice, Brazilian Library of Theses and Dissertations, Open Grey and Clinical Trials) was carried out, with specific search strategies. The risk of bias was assessed with the Cochrane Collaboration's tool for assessing risk of bias in randomized trials. Meta-analysis (standardized difference of means, Inverse Variance and random effects model) and heterogeneity analysis (Tau<sup>2</sup>, and I<sup>2</sup>) were performed. We found 610 studies and selected five. There was a risk of selection, performance and detection bias. The data were heterogeneous and there was no difference between interventions in self-perception of cough impact ( $z=0.2195$ ,  $p=0.8262$ ;  $\tau^2=0.702$ ,  $I^2=86.11\%$ ) and the frequency and severity of cough ( $z=-0.2020$ ,  $p=0.839$ ;  $\tau^2=0.865$ ,  $I^2=88.77\%$ ).

**Conclusion:** There was no difference in the efficacy of speech-language pathology management and other interventions in self-perception of patients with chronic cough.

#### 10579 Congenital syphilis in the context of neonatal hearing screening

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*Maternidade Darcy Vargas*

**Introduction:** In the neonatal context, through newborns with congenital syphilis, the speech pathologist and audiologist therapist performs universal neonatal hearing screening in the maternity hospital through examinations of transient-evoked otoacoustic emissions and the auditory evoked potential of the brainstem.

**Objective:** To verify the prevalence of congenital syphilis associated with the results of the universal neonatal hearing screening in newborns at a public maternity hospital in the city of Joinville, Santa Catarina. Methodology: Cross-sectional, retrospective and analytical study, with data obtained from records of 30912 neonates from the audiologist therapy service of a public maternity hospital in the city of Joinville, Santa Catarina with a diagnosis of congenital syphilis undergoing universal neonatal hearing screening (UNHS) from January 2016 to December 2020.

**Results:** From the sample of newborns, 495 were diagnosed with congenital syphilis (1.60%). At UNHS, 481 (97.17%) passed and

14 (2.82%) failed; among those who failed, 7 (1.41%) were referred for audiological diagnosis. Therefore, with regard to neonates referred for audiological diagnosis, 4 neonates presented, in addition to syphilis, other risk indicators for hearing loss, such as prematurity, use of potentially ototoxic aminoglycoside, toxoplasmosis, maternal drug addiction, Zika virus and HIV.

**Conclusion:** Syphilis was confirmed as a high frequency pathology for risk of hearing loss and the universal hearing screening performed in this maternity hospital efficiently diagnosed newborns in the city. UNHS is a high standard procedure for Brazilian speech therapy and should be part of services in public and private maternity hospitals for the early diagnosis of hearing loss.

#### 10581 Characteristics of home office work influence self-perception of vocal fatigue during COVID-19 pandemic

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**Introduction:** The COVID-19 pandemic changed the routine of many workers, some of whom had to adapt to working in the home office. These workers have worse vocal fatigue self-perception than those who are in face-to-face work. It is necessary to understand what influences the vocal self-perception of these workers.

**Objective:** To verify the influence of work characteristics and occupational voice use on self-perception of vocal fatigue symptoms in individuals who are working in the home office mode during the Covid-19 pandemic.

**Methods:** This research is a cross-sectional and descriptive study. The research ethics committee approved the study (4.071.175). The sample consisted of 206 individuals who were working exclusively in the home office mode due to the pandemic, with an average age of 34 years, 120 females and 83 males. Through an online form, all answered the Vocal Fatigue Index (IFV) and the occupational voice and work characterization questionnaire developed by the authors of the present study. Data were analyzed descriptively and inferentially.

**Results:** Participants who had vocal complaints during the pandemic had higher vocal fatigue symptom scores in tiredness and voice impairment factors ( $p<0.001$ ), avoidance of voice use ( $p=0.003$ ), physical discomfort ( $p<0.001$ ), improvement of voice symptoms with rest ( $p<0.001$ ) and total ( $p<0.001$ ). The presence of noise in the work environment generated higher scores of symptoms of vocal fatigue in physical discomfort ( $p=0.011$ ) and total ( $p=0.027$ ) factors.

**Conclusion:** Environmental conditions of home office work are associated with increased perception of vocal fatigue in occupational use of the voice.

#### 10593 Performance of speech therapists in breastfeeding: A literature review

Gabriele Pelais Dias, Alef Moraes dos Santos, Rômulo Evandro Brito de Leão, Francisca Canindé Rosário da Silva Araújo, Douglas Rego Chaves, Josafá Pantoja da Silva

*Therasuit Studio Belém*

**Introduction:** Breastfeeding plays an important role in the nutritional, immunological and social development of the newborn. For the practice to be successful, guidance and support are needed from professionals involved in providing correct information at this stage related to breastfeeding, which should start in the prenatal period and continue in the postnatal period, especially in the first days of the baby's life. Thus, this study aims to analyze the role of speech therapy in newborn breastfeeding.

**Objective:** To identify the importance of the speech therapist in breastfeeding, the ways of acting and the benefits of this intervention. Methodology: this is a literature review with a qualitative approach, where the choice of articles was based on the search and identification of titles on the subject.

**Results:** They emphasize the importance of the speech therapist's help in the process of adaptation of the oral movement

and on the speech therapy aspects that allow an observation of the newborn's circumstances for safe feeding and in the mother's guidance on the practice of breastfeeding, which requires information on the correct position of the breast, increase or decrease in milk production, weight gain, suction, breathing, relactation and possible consequences on the use of materials such as artificial nipples.

**Conclusion:** Speech therapy intervention is important in breastfeeding, as the speech therapist can play the role of educator, advisor and stimulator of the continuity of breastfeeding, acting in an educational practice that contributes to maternal and child health.

**Keywords:** breastfeeding, speech therapy, maternal and child health.

#### 10598 Language demand in a community in Belém of the Pará: Results of a social Campaign

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It is through language that we express our feelings, learn our sense of time, develop our reasoning and plan our attitudes. So that we have good language development.

**Objective:** To evaluate and characterize indication of possible language acquisition disorders in children living in a community in Belém. **Methodology:** Quanti-qualitative cross-sectional study, in which a social action was carried out in a church in Belém-PA in February 2020, which had as its main objective, the promotion of actions that generate quality of life for the community living in the region.

**Results:** 14 children were screened (100%), 6 males (42.85%) and 8 females (57.14%), aged between 3 and 11 years, where of these, one presented fricative nasalization (7.14%), two presented fricative posteriorization (14.28%), two presented epenthesis (14.28%), 4 presented liquid substitution (28.27%), 5 presented consonant cluster reduction (35.71%) and 7 showed final liquid erasure (50%). No parent or guardian reported any type of neurological dysfunction that could justify such problems.

**Conclusion:** This work demonstrates the importance of bringing quality of life to the community and highlighting the importance of creating programs aimed at the development of language in children, with a focus on preservation and information, showing the importance of speech therapy action in the processes language acquisition, providing better development and quality of life.

**Keywords:** language, language development, social project.

#### 10599 Phonetic evaluation of patients undergoing open horizontal laryngectomy

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**Introduction:** Open horizontal laryngectomy preserves one-third of the larynx and causes a significant impact on speech and swallowing functions.

**Objective:** To analyze the voices of two patients through a perceptual phonetic instrument. **Abstract Report:** Male patients who underwent cricohyoidopiglotomy for laryngeal neoplasia, in a recent (patient 1) and late postoperative period (patient 2), 77 and 82 age respectively. Both underwent speech therapy. Phonetic analysis of voice was performed by applying The Vocal Profile Analysis Scheme, in a consensus of three judges. The self-reported voice was registered.

**Results:** In the supralaryngeal arena, patients revealed tendencies for lip, jaw, and tongue body limited extension, combined with retracted and lowered tongue body and pharyngeal constriction adjustments. In the muscular tension domain, there had been vocal tract and laryngeal hyperfunction, in addition to inadequate

respiratory support. From the phonatory point of view, both patients showed aperiodic voices. Some singularities were probably related to the time after surgery. Patient 1 presented a harsh voice combined with air escape and short-term occurrences such as breaks and diplophony. He feels that "the voice is normal and complicated". The patient, with a long time after surgery, showed a harsh voice adjustment

**Conclusion:** The vocal tract and laryngeal muscular tension adjustments were observed in both, but in a higher degree inpatient in a recent post-operative period. The patterns related to physiological events of air escape, muscular tension, and stiffness seemed less acceptable, as far as the participant's own expectations were concerned.

**Keywords:** phonetic evaluation, laryngectomy, voice.

#### 10604 Hearing handicap inventory for elderly - results obtained in elderly people groups

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**Introduction:** Hearing loss in the elderly can cause isolation in the elderly and difficulties in social interaction. Questionnaires can be used to identify the presence of this social distancing, and there is a relationship between the score obtained in the questionnaires and the presence of hearing loss

**Objective:** To verify the handicap caused by hearing loss in elderly participants in a social group.

**Methods:** The Hearing Handicap Inventory for Elderly, short version (HHIE-S), was applied to elderly people who attended a social group to perform physical activities. The application was in the form of an interview and there was a quantitative analysis of the data obtained.

**Results:** 59 individuals, aged between 60 and 83 years (mean 69.81±6.18 years), were evaluated. The score on the HHIE-S ranged from 0 to 32 points. It was found that 47 (79.7%) participants had no restriction on social participation caused by hearing loss (between 0 and 8 points in the questionnaire), nine (15.2%) had mild to moderate handicap (between 10 and 23 points) and three (5.1%) had a significant handicap (between 24 and 40 points).

**Conclusion:** It was found that most of the elderly people evaluated did not present social difficulties due to their hearing loss.

**Keywords:** elderly, hearing loss, hearing.

#### 10605 Consequences of fetal alcohol syndrome on newborn hearing: Case report

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**Introduction:** Alcohol intake during pregnancy brings consequences for both the mother and the baby, such as miscarriage or acquisition of Fetal Alcohol Syndrome. Ingested alcohol reaches the fetal blood system and makes conditions in the uterus inappropriate for healthy development. Included among the consequences are neurological abnormalities, behavioral dysfunctions, neuropsychomotor development delay, intellectual disability, sensory and perceptual changes. Among the sensory impairments described in the population with Fetal Alcohol Syndrome are conductive and sensorineural hearing losses, with an occurrence between 70-77% and 29%, respectively.

**Objective:** To describe a case of Fetal Alcohol Syndrome and its consequences on the hearing of a newborn.

**Resumed report:** Male patient, born on 06/04/2021, with gestational age of 42+4. Born by caesarean section, with central cyanosis, hypotonic and weak crying, weighing 3388g, apgar 7/8. Mother without prenatal care, reports use of psychoactive substances (cocaine and alcohol) during pregnancy. On physical examination, an pre-auricular fistula on the left, atresia of the left external auditory meatus, little prominent nasal philtrum, thin upper lip, adductus

foot and possible macroglossia were identified. Altered Otoacoustic Emissions and Automatic Auditory Brainstem Response exams in the left ear and normal in the right ear, cerebral ultrasound with alteration in the morphology of the left lateral ventricle and possible alteration of the corpus callosum and electroencephalogram showed convulsive crisis. Patient referred for audiological diagnosis.

**Conclusion:** Important report to identify possible hearing alterations in cases of Fetal Alcohol Syndrome, seeking greater knowledge on the subject.

**Keywords:** audiology; fetal alcohol syndrome; speech therapy; newborn.

#### 10611 Hearing assessment in patients treated at a reference center for the treatment of osteogenesis imperfecta

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**Introduction:** Osteogenesis imperfecta (OI) is a rare inherited disease characterized by decreased bone density due to defects in type 1 collagen biosynthesis. The main clinical features of OI are bone fragility, recurrent fractures, short stature and progressive bone deformity. Other manifestations include: bluish sclera, dentinogenesis imperfecta, ligament laxity, hearing loss.

**Objectives:** Assess the hearing of these patients to verify the prevalence of hearing loss according to the type of OI.

**Methods:** Pure tone audiometry was performed in patients treated at a public hospital in southern Brazil at a Reference Center for the treatment of OI for auditory quantification according to the type of OI.

**Results:** The sample consisted of 44 patients, 26 female and 18 male, with a minimum age of 5 and a maximum of 68 years (median of 19.5 years). Among the types of OI, 31 individuals were evaluated as Type I, 4 from III, 6 from IV and 3 from V. The mean thresholds obtained varied according to ear and type of OI, with the highest being seen in Type III on the left. difference (12.35dB). There was a higher percentage of normality in types I, III and IV (66, 50 and 75% respectively). Among hearing loss, the greatest impairment was the sensorineural type (33%) in Type V and 17% in Type IV, mixed (26%) in Type I, followed by conductive impairment (25%) in Type III.

**Conclusion:** The percentage of hearing loss in the group of patients evaluated corroborates the need for auditory monitoring of these patients.

#### 10612 Access and permanence of patients with voice complaints or swallowing in a speech therapy clinic

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**Introduction:** The trajectory of patients in a health service is marked by a series of factors, since the access to completion of treatment, which generally influence their adherence or not to the established proposal.

**Objective:** To analyze the variables associated with the clinical outcome of patients with voice or swallowing complaints.

**Methods:** Observational, cross-sectional, descriptive and retrospective study. 81 records were included in the research, 47 female and 34 male, aged over 18, attended at the Voice Clinic of the Speech Therapy Service of the University Hospital Clementino Fraga Filho between 2010 and 2018. Participants were divided into three groups, based on the clinical outcome of the speech therapy: discharge, dismissal and abandonment. The variables studied were gender, marital status, education, income, being a voice professional or not, initial complaint, speech-language diagnosis hypothesis and professional who referred. For descriptive analysis, frequency measures were used and for inferential analysis, Pearson's Chi-Square test was used ( $p < 0.05$ ).

**Results:** Sociodemographic variables were not significantly associated with the outcome. Dropping out of therapy was associated

with income of up to 1 minimum wage ( $p=0.04$ ). There was an association between the specific voice complaint and the outcome of speech therapy discharge ( $p=0.02$ ). Low adherence to treatment was observed, as evidenced by high dropout and dropout rates.

**Conclusion:** Income was associated with the clinical outcome of noncompliance, and the initial complaint with the clinical outcome of discharge.

**Keywords:** unified health system; health services; hospital clinic; outpatients; speech therapy.

#### 10614 Vocal effects in combined treatment in metastatic medullary thyroid carcinoma: Case report

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**Introduction:** Thyroid cancer is the most common malignant tumor in the head and neck region. Alternative treatments for metastatic disease may include surgery, radiotherapy or radioiodine therapy and chemotherapy.

**Objectives:** Describe the impacts of combined treatment for Metastatic Medullary Thyroid Carcinoma on vocal quality.

**Resumed report:** Forty-four years-old female patient diagnosed with metastatic medullary carcinoma of the thyroid. She went through a partial thyroidectomy in 2012, and in the same year, the gland was completely removed. In 2013, was submitted to 25 radiotherapy sessions, admitted two times for I-131 MIBG therapy and one time for administration of iodine therapy. In 2021, she presented nodal recurrence in the cervical region, causing the patient to perform a right and left neck dissection. Present severe cervical fibrosis and left vocal cord paralysis. In the self-perception vocal questionnaire, she presented vocal disadvantage in the Voice Handicap Index (VHI-10) and in the Voice Handicap Index-Throat (VHI-T), which refers to laryngeal sensitivity. On the GRBASI Scale, she presented grade three for general and hoarseness, grade two for breathiness and harshness, and grade one for instability. In the Thyroidectomy-Related Voice (TVQ) the total score was 72, which the total score can be 80. These questionnaires assess vocal disadvantages and the TVQ aims to assess the complaints at laryngeal, vocal and swallowing after thyroidectomy.

**Conclusion:** It is observed that the combined use of treatments for metastatic medullary carcinoma of the thyroid can have major consequences for the patient's vocal quality.

**Keywords:** thyroidectomy; thyroid cancer; radiotherapy; voice quality.

#### 10617 Impacts of total thyroidectomy in the voice of pediatric patients: Case series

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**Introduction:** Post-thyroidectomy dysphonia is a recurrent manifestation, however, information related to the juvenile population is still scarce.

**Objective:** To analyze the vocal self-perception and the findings of videolaryngoscopy exams of five patients with total thyroidectomy in childhood.

**Resumed report:** The study was approved by the Research Ethics Committee under CAAE No. 89042418.7.0000.5274 and carried out at the National Cancer Institute located in Rio de Janeiro. There was the Vocal Performance Questionnaire (QPV) and the Pediatric Voice Quality of Life Questionnaire (QVQ-P), followed by rigid laryngoscopy. All participants had papillary thyroid carcinoma and underwent radioactive iodine treatment in addition to surgery. The five participants have preserved vocal fold mobility and the Recurrent Laryngeal Nerve, two participants have a glottic cleft, one has arytenoid asymmetry and the other has attenuated salivary stasis. The QPV scores show that all participants express some impairment in vocal performance, whether mild or moderate. In the results of the QVQ-P,



it was possible to observe that the highest scores corresponded to the two participants with the shortest postoperative time, indicating a better quality of life in voice. In this sense, 80% of the participants showed lower scores for the physical functioning of the QVW-P when compared to the socio-emotional functioning.

**Conclusion:** This study corroborates the literature, in which vocal complaints are not associated with nerve damage. Furthermore, laryngeal structural changes may occur due to the difference in size and delicacy of anatomical structures in children.

**Keywords:** voice; thyroidectomy; children.

### 10630 Perceptual and acoustic vocal assessment of pre and post thyroidectomy patients

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**Introduction:** The incidence of thyroid cancer has been increasing and vocal changes may be present in the pre-and post-surgical phase.

**Objective:** Perceptual and acoustic voice assessment in two moments of thyroidectomy.

**Methods:** This is a prospective, almost experimental study before and after the surgical intervention. (8 days). The socio-demographic, clinical and perceptual and acoustic voice were performed. Phonatory tests of vowel emission, automatism and phrases were recorded. For perceptual evaluation, the hoarseness, breathiness, asthenia, tension, and instability parameters were used. Acoustic parameters were analyzed by the voxmetry program. Intra-rater and inter-rater agreements were performed using the Kappa test.

**Results:** The study sample consisted of 10 female patients, with a median age of 42 years. Papillary carcinoma was prevalent in half of the sample. Rough was the most reported symptom in the sample. According to the acoustic parameters, the fundamental frequency, the phonation deviation diagram, and the glottic signal/noise ratio remained normal in both moments, in the jitter and shimmer parameters it was observed a worsening in the second moment. In the auditory-perceptual evaluation, the voices became rougher in the postoperative period, but without statistical significance, in the same way, no association was shown in the pitch between the first and second moments.

**Conclusion:** Research participants had vocal alterations at both times. In the acoustic analysis, the jitter and shimmer parameters worsened in the second assessment. In the auditory-perceptual analysis, a rough and more tense vocal quality was observed in relation to the initial moment.

**Keywords:** voice, thyroidectomy, follow-up.

### 10631 “Minha traqueo não me define”: A transdisciplinary project proposal

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*Hospital Público Estadual Galileu*

Faced with diseases of morphological origin that threaten the continuity of life, treatment is necessary from a multidisciplinary perspective, always based on humanized care.

**Objective:** To present a humanized project in a public hospital.

**Methodology:** Based on the experiences of the staff of the tracheoplasty service at the Hospital Público Estadual Galileu (HPEG), in Belém/PA with users undergoing treatment for tracheal stenosis, it was seen that there was a need to expand the vision and direction of the conducts, also welcoming the emotional demands of these users and their families during the long and exhausting period of treatment.

**Results:** The project entitled “Minha Traqueo Não Me Define” was then created with the aim of expanding the biopsychosocial care of users undergoing tracheoplasty treatment through the realization

of therapeutic groups. This is a pilot project in which 3 groups will be assembled, each with 10 participants; each group will participate in 2 meetings that will include the following actions: 1- promote a speech education moment; 2- create space for exchanging experiences and sharing; 3- carry out activities that favor and encourage the development of self-esteem, self-care and the process of elaboration/ acceptance of the limits and potential of each subject; 4- encourage the participation and socialization of users. Thus, the project is configured as an innovative and welcoming action in health, in an attempt to offer biopsychosocial support to a demand that is often neglected. As a way to achieve the main objective of health care: ensuring the dignity of human life.

### 10640 Sociodemographic and speech-language analysis of cancer patients

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**Introduction:** Cancer is a public health problem that requires a multimodal follow-up by a multidisciplinary team to offer better care to cancer patients.

**Objective:** To identify the profile of patients undergoing diagnosis treated in a high-complexity Institution.

**Methods:** A retrospective study was carried out between 2017 and 2019 in an Oncology Unit, whose assessment instrument consisted of a semi-structured questionnaire, in addition to a performance scale regarding diet, eating in public, and speech intelligibility.

**Results:** The final sample consisted of 1,170 participants where 60.9% were male and 50.8% over 60 years old. Schooling varied between illiteracy (13.3%) and higher education (10.5%). There was a considerable frequency of speech-language symptoms, coughing or choking, pain when swallowing and difficulty in eating in at least 45, 9% of patients, where they needed to make significant changes in their diet and or communication. The performance scale showed that 58.7% made changes to the oral diet, 45.9% needed to repeat it in order to be understood, and 6.2% of the graphic support.

**Conclusion:** The study presents the sociodemographic and clinical functional profile considering the feeding and communication of patients in the first multi-professional oncology consultation, in addition to indicating the integrated care to minimize the sequelae of the disease, highlighting the importance of the speech therapist inserted in the team.

**Keywords:** dysphagia, multiprofessional care, diagnosis.

### 10645 Alaringeal communication method under a speech therapy perspective

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*Fonocare*

**Introduction:** There are many pathologies that affect the larynx region. This is what happens with hypopharyngeal cancer, which grows by abnormally growing cells that are likely to spread to lymph nodes. As a result, treatment of the lymph nodes in the neck is recommended during total laryngectomy.

**Objective:** To report the therapeutic advances achieved in the rehabilitation of a total laryngectomized patient using the esophageal voice technique.

**Methodology:** This is a qualitative, retrospective search, with a simple case study methodological technique. Clinical case description: A.F.P.R., 62 years old, resident in Belém / PA, presented vocal roughness, being identified the confirmation of laryngeal cancer through biopsy. In São Paulo, he performed total laryngectomy with bilateral neck dissection on 14/09/19. Returning to Belém, he continued in Speech Therapy with no pharyngeal sound, cervical tension and Mallapati III

classification. The therapy used: cervical stretching exercises, posterior pharyngeal wall, aerophagia and articulation training. Twenty skills were performed to reach esophageal voice emission, and 45 for fluency.

**Conclusion:** The techniques used for esophageal voice adaptation were considered satisfactory, and the objective of vocal compliance was achieved. There are few debates about esophageal voice techniques, more research is needed in order to enhance the speech therapy practice with laryngectomized patients, as well as the rehabilitation of communication in these patients.

**Keywords:** speech therapy, total laryngectomy, esophageal voice, laryngeal cancer.

#### 10651 Systematic review: Vocal health guidance programs for teachers

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**Introduction:** Research based on affirming the importance of teachers, understanding about vocal health. In this context, it is up to the speech therapist to carry out guidance with teachers regarding the good use of their voice.

**Objectives:** Systematically review the prevalence of vocal orientation programs aimed at continuing teacher education within the last 5 years.

**Data Synthesis:** As search source was used Google Scholar, for ease of access. The pre-established criteria for the work to be selected were: date of publication in the last 5 years; key words "Teacher's voice" and/or "Vocal health" and/or "Teachers" and/or "continuing education"; implementation of a vocal guidance program aimed at teachers.

About 50 studies analyzed, most of them bring illness and distancing teachers from vocal symptoms. A work, from perspective to vocal guidance. Silva Oliveira (2020) with the title "Professor, where is your voice? How's your voice? A proposal for continuing education", the teacher and speech therapist, affirms the lack of work in this area for teachers and the importance of these in vocal health. Developed a program of dialogical and reflexive vocal orientation, considering the teacher's perspective, physiological aspects, and the individual's perception of voice psychodynamics. He applied a course, with a program elaborated together with the teachers, aiming to use accessible language for general understanding.

**Conclusion:** It is perceived the scarcity of vocal orientation programs, which take into account the physiology of this process, and that are focused on the continued formation of teachers.

**Keywords:** teacher voice, teacher training, systematic review.

#### 10657 Vocal signs and symptoms in patients undergoing thyroidectomy

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**Introduction:** Thyroidectomy is one of the most performed surgeries in the world, corresponding to the surgical technique that involves the manipulation of the thyroid gland and adjacent structures, which may cause vocal impairment. Given the scarcity of studies of probable vocal alterations in patients after total or partial thyroidectomy, was identified the need to know the possible vocal complaints and verify the integrity of the recurrent laryngeal nerve and vocal fold mobility of patients treated at the National Cancer Institute, located in Rio de Janeiro.

**Objectives:** Investigate the variables that may influence the vocal quality of thyroidectomized people.

**Methods:** The study was approved by the Research Ethics Committee under CAAE nº 89042418.7.0000.5274. This is a retrospective study, performed by the method of document analysis, which the data of patients who underwent thyroidectomy surgery will be accessed through consultation in electronic and physical medical charts.

**Results:** 22 medical charts were retrieved, being 3 males and 19 females, with an average age of 46 years. It was observed that all of them had laryngeal nerve integrity and 50% of the sample had preserved vocal fold mobility, of which 45% had vocal complaints such as hoarseness, soporous voice and reduced intensity.

**Conclusion:** Understanding the variables that may influence the vocal production of patients who undergo thyroidectomy surgery may contribute to new technologies regarding assistance and speech therapy care and then enable the welfare of the individual in his social and professional life.

**Keywords:** voice, thyroidectomy, thyroid neoplasms, voice quality.

#### 10661 The use of hormonal contraceptive and hearing loss: Systematic review

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**Introduction:** Hearing loss results in the restriction of the ability to communicate, directly affecting the subject's socialization. There are etiological factors that cause hearing loss, including ototoxicity, among which hormonal drugs such as contraceptives stand out.

**Objective:** Present scientific evidence based on a systematic literature review (PRISMA) on the use of hormonal contraceptives and hearing loss.

**Data Synthesis:** Searches for articles in PubMed, LILACS, SciELO, ScienceDirect, SCOPUS, Cochrane and Academic Google databases without location or language restrictions, published from January 2009 to January 2020. The first search was performed in the PubMed database, with the descriptors (contraceptive) and (hearing) and (women). In subsequent databases, descriptors were adapted when necessary. 444 articles were found, and 3 articles met all the inclusion criteria. It was observed that hormonal contraceptives tend to influence changes in the auditory and vestibular system.

**Conclusions:** It was observed that the use of contraceptives is directly related to hearing alterations, in their great majority, they affect the vestibular system, causing symptoms such as tinnitus and vertigo, however, such alterations depend on the administered dosage. These findings show that hormonal contraceptives are directly related to sensorineural hearing loss in women. However, a cohort study is suggested in order to investigate the risk to hearing of women with the use of hormonal contraceptives.

**Keywords:** contraceptive, hearing, women.

#### 10671 Impact of voice on quality of life and mental health of subjects with total laryngectomy

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*University of Campinas - Unicamp*

**Introduction:** Laryngeal cancer treatment involves vocal alterations, quality of life and, consequently, mental health.

**Objectives:** In this study we evaluated the vocal aspects of subjects with total laryngectomy, as well as the mental health conditions and quality of life of this population.

**Methods:** After approval by the Institution's Research Ethics Committee (opinion number 4.799.555/CAAE: 46398121.5.0000.5404), we carried out a descriptive, quantitative and cross-sectional study. Adults of both genders undergoing total laryngectomy and in outpatient follow-up responded to the Voice Symptom Scale – VoiSS, the Self-Reporting Questionnaire (SRQ - 20) and the European Organization for Research and Treatment of Cancer (EORTC-C30).

**Results:** A total of 12 total laryngectomized subjects participated in the study, 91.6% (N=11) were male and 8.4% (N=1) were female, mean age 64 years. All subjects exceeded the cut-off score of the ESV. Through the score obtained in the SRQ-20, 33.3% manifested psychic distress. In these individuals, the mean scales in the EORTC-C30 were: functional 52; global health 52 and symptoms 53. In the others, the mean scales were: functional 81; global health 78 and symptoms 6.

**Conclusion:** the data presented in this study confirm the effects of vocal alterations in total laryngectomized patients and their influence on emotional aspects as determining factors in quality of life, indicating the importance of integral care including psychological factors during treatment in this population.

#### 10674 Improving the school performance of children using hearing aid with the use of auxiliary technologies in times of pandemics and remote education

Izabella Lima de Matos, Luiz Fernando Manzoni Lourencone, Maria Fernanda Capoani Mondelli, Vanessa Fonseca Ormrod, Thais Lenharo Saters, Eliene Silva Araújo  
*Clisound Fonoaudiologia*

**Introduction:** In the context of the Covid-19 pandemic, education in all grades and cycles had to adapt to the required social distance. One of the measures adopted was remote teaching, however, the sound that comes out of the mobile device is not of quality, it can suffer modifications and acoustic distortions. Thus, difficulties emerged for students using hearing aids. In this scenario, auxiliary devices appear as facilitators in the sound transmission process, offering direct connectivity between the hearing aid and the mobile device.

**Objective:** To describe two clinical cases of children using bilateral hearing aids with results of improvement in school performance after using auxiliary devices during remote teaching.

**Case report:** Two children aged 6 and 9 years, diagnosed with hearing loss at 3 and 6 years respectively with severe bilateral sensorineural hearing loss and fitted with a hearing aid since diagnosis, are private school students, and in remote education due to the pandemic of Covid-19. Mothers reported children's difficulties in hearing what the teacher and classmates said and understanding the content taught to carry out the activities. The adaptation of the auxiliary device was suggested by the Speech-Language Pathologist, who follows the cases, and with its use in the first weeks, it was already possible to observe an improvement in listening comprehension and school performance.

**Conclusion:** The use of auxiliary devices facilitates the listening process for understanding the content passed in online classes and helps the student with hearing loss in the school learning process.

**Keywords:** COVID-19, audiology, school.

#### 10675 Case report: What can we do in the clinic about auditory hypersensitivity?

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**Introduction:** In clinical practice, some complaints are not identified in conventional audiological assessment, such as auditory hypersensitivity, which can be classified as hyperacusis, misophony or phonophobia. Thus, the advancement of knowledge and improvement of the clinical protocol is essential.

**Objectives:** Describe a clinical case of a patient complaining of hypersensitivity to low intensity sounds.

**Resumed report:** A 30-year-old woman complaining of irritability to everyday sounds, such as computer keys, chewing, a fan, among others of low and medium intensity. Reported impact on sleep quality and irritability in different everyday situations. The complaint started more than two years ago, however, in the last six months, the discomfort increased, so she decided to seek evaluation and treatment. In the complete audiological evaluation with audiometry, speech audiometry, impedance tests, otoacoustic emissions and auditory brainstem evoked potential for neurodiagnosis and electrophysiological threshold research, all results were within normal limits. After multiprofessional discussion of the clinical case, we carried out the study of the discomfort threshold, the presence of hyperacusis was found and we referred the patient for neurological investigation

and definition of conduct. It was necessary to use medication for intervention.

**Conclusion:** Valuing the patient's complaint is the first step for professionals to optimize clinical assessment protocols. Furthermore, acting in a multidisciplinary team is essential to effectively guide the conduct of the case and closure of the diagnosis.

**Keywords:** hearing, hyperacusis, hearing tests.

#### 10676 Change in the type and degree of hearing loss after COVID-19

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**Introduction:** The consequences of covid-19 have been widely studied, but scientific evidence in the field of audiology is still limited.

**Objectives:** Describe the case of a patient with hearing loss, user of bilateral hearing aid, after contamination by Covid-19.

**Resumed report:** Woman, 85 years old, with a previous diagnosis of bilateral moderate sensorineural hearing loss, use of hearing aids since 2017 and regular follow-up for hearing assessment and adaptation conditions with the aids. In October 2020, the patient had Covid-19 with symptoms. She was hospitalized, received drug treatment (not informed) and, after hospital discharge, reported motor and eating difficulties and hearing loss seemed to get worse. Audiometry revealed severe mixed hearing loss in the right ear and moderate sensorineural hearing loss in the left ear, with worsening of hearing thresholds due to air and bone conduction and speech recognition. The patient continues using the hearing aids, but with greater power on the right side due to the worsening of the severity of the hearing loss and alteration of the type.

**Conclusion:** Modification of the audiological pattern was found after Covid-19, with worsening of hearing loss. In addition to the Sars-cov-2 virus infection, there is the possibility of using ototoxic drugs for the treatment, thus, it is essential to analyze the auditory and vestibular symptoms both in listeners and in patients with previous hearing loss.

**Keywords:** hearing loss, Covid-19, hearing aids, audiology.

#### 10678 The importance of audiological follow-up in patients using hearing AIDS

Izabella Lima de Matos, Thais Lenharo Saters, Eliene Silva Araújo, Maria Fernanda Capoani Mondelli, Vanessa Fonseca Ormrod  
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**Introduction:** It is known that periodic follow-up after hearing aid fitting is important for the patient's treatment. Within this monitoring, audiological assessments are stipulated in the elderly population at annual intervals or every two years to monitor the auditory condition.

**Objectives:** To describe a clinical case of a patient with presbycusis, user of bilateral hearing aid, with hearing loss progression shortly after adaptation.

**Resumed report:** A 69-year-old female patient came for hearing aid fitting with a diagnosis of symmetric bilateral sensorineural hearing loss with a moderate degree and descending configuration. A device with a receiver in the canal was adapted, with self-perception of hearing improvement. In the clinical evaluation with the devices, satisfactory responses were observed. The patient came for periodic visits and six months after the adaptation reported difficulties in hearing and understanding speech even with the use of hearing aids. Adjustments were made, however, it was necessary to greatly increase the gain for the patient to report hearing improvement. Thus, it was decided to carry out auditory reassessment, with maintenance of the type and degree of hearing loss, however, with worsening of low and medium sound frequency thresholds and worsening of speech recognition. The devices were reprogrammed according to the updated audiological findings, with subsequent amplified threshold

research, speech mapping and speech perception tests indicating optimized results after adjustments.

**Conclusion:** Periodic return after adaptation of hearing devices is extremely important for monitoring the audiological condition and effective use of the devices.

**Keywords:** hearing aids, hearing tests, audiology.

#### 10679 Sequential bilateral sudden hearing loss: Case series

Thais Lenharo Saters, Vanessa Fonseca Ormrod, Luiz Fernando Manzoni Lourencone, Eliene Silva Araújo, Izabella Lima de Matos  
*Clisound Fonoaudiologia*

**Introduction:** In sudden hearing loss, unilateral impairment is common, with sudden worsening of hearing thresholds and the possibility of tinnitus and dizziness as associated symptoms. The etiopathogenesis is often unknown and some studies point to viral infections, vascular insufficiency and autoimmune diseases as the main etiologies.

**Objectives:** To describe a clinical case with retrocochlear sensorineural hearing loss, with late topographic diagnosis.

**Resumed report:** Three women, aged 31, 42 and 67 years, followed from diagnosis to intervention. It was observed that 3 weeks, 10 years and 3 years, respectively, after unilateral sudden hearing loss, they had sudden hearing loss in the other ear. In the three cases and in both moments, the evaluation was carried out in the same week of the onset of symptoms and drug treatment was carried out, using intratympanic corticosteroids for one of the cases. There was no hearing improvement in any case. Patients aged 42 and 31 years had a diagnosis of profound bilateral sensorineural hearing loss, the first using hearing aids with good results and the second having an indication for cochlear implants. The 67-year-old patient has moderate sensorineural hearing loss on the right and severe on the left.

**Conclusion:** Although sudden bilateral hearing loss is considered rare, in the last year we observed three cases of sequential sudden hearing loss, with different intervals. It emphasizes the importance of longitudinal follow-up and studies that investigate the incidence, as well as expand knowledge about the etiologies and treatments.

**Keywords:** hearing, audiology, hearing tests.

#### 10680 Fonoremember 2.0: Remote reviews by the academic center during the COVID-19 pandemic

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**Introduction:** "Fonoremember 2.0" was an event that featured a series of remote reviews of the areas of expertise in speech therapy, from assessment to treatment and performance in each specific area.

**Objectives:** Check the impact and adherence of students completing the last year of the course by offering reviews on the various areas of speech therapy.

**Methods:** The event was organized by the Academic Center of the course and featured internal and external speakers. For daily

classes, the online meeting platform Google Meet was used. At the end of each meeting, participants virtually signed an attendance list through Google Forms. For the study, participants' opinions and attendance lists were analyzed as a criterion for adherence.

**Results:** The event registered 50 students who were very satisfied with the platform and the lectures given every day for three weeks, reporting great benefit from the event and the knowledge that was passed on during it. The course was attended by 96% of the students who actively participated by the end. A virtual folder was created with all the content presented by the speakers to be available to students.

**Conclusion:** In addition to reaching the enrollment target and a considerable attendance of the participants, it was possible to notice that the students were quite satisfied with the action, enabling greater security in the speech therapy practice both in supervised internships and in the post-graduate professional career.

**Keywords:** distance study, academic center, student event.

#### 10683 A close clinical look for accurate diagnosis: A case of vestibular schwannoma

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*Clisound Fonoaudiologia*

**Introduction:** The importance of the differential diagnosis in unilateral or bilateral asymmetric sensorineural hearing loss is a consolidated knowledge, however, it's essential that it is actually implemented. In the daily routine of auditory centers, topographic and etiological diagnosis can sometimes be performed earlier through the attention of the professionals.

**Objectives:** To describe a clinical case with retrocochlear sensorineural hearing loss, with late topographic diagnosis.

**Resumed report:** Female, 89 years old, complaining of dizziness and hearing loss in the left ear for over 10 years. Previous audiological follow-up in different auditory centers with the diagnosis of hearing loss, however, without a differential diagnosis. She sought a new assessment due to the complaint of severe dizziness and difficulty in understanding speech. In the evaluation, bilateral asymmetrical sensorineural hearing loss of moderate degree on the right and profound on the left was found. In speech audiometry of the right ear, we verified incompatibility of speech recognition with pure tone thresholds. After discussing the clinical case, the doctor requested an imaging diagnosis. The result suggested vestibular schwannoma measuring 26x27x29 millimeters on the left, bulging the cerebellar pendulum and the cerebral bridge contralaterally, which justifies the complaint of dizziness and the incompatibility in the speech recognition test on the right.

**Conclusion:** Although the diagnosis of asymmetric hearing loss has been defined for years, clinical investigation with complementary exams, and therefore, the topographic diagnosis was late. Improving assessment protocols and working as a team can optimize diagnosis, treatment and effective management.

**Keywords:** hearing loss, audiology, Schwannoma.



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