IS-001 Evaluation of the Usefulness of App-Based Hearing Screening in School Health Checkups in Cambodia

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In Cambodia, shortages in economic resources, healthcare personnel, and medical equipment result in many children remaining untreated for otolaryngological diseases, raising concerns about hearing-related developmental outcomes. School health systems for early detection of hearing impairment remain insufficient.

We conducted app-based hearing screening as part of a school health examination program, using headphones and a mobile application without soundproof facilities or screening audiometers.

Pure tones at 1, 000 Hz and 40 dB were presented bilaterally, and children were instructed in Khmer to raise their hand upon hearing the sound. However, limited comprehension of the procedure and excessive environmental noise made screening at 40 dB challenging. Increasing the intensity to 60 dB enabled responses in some grade levels, indicating the need for improved testing environments and instructional strategies.

A comparative analysis with data from Gunma University-affiliated schools will be conducted to contribute to the establishment of an effective school-based hearing screening system in developing countries.

IS-002 Safe Listening Behaviors in Medical Students after Hearing Health Promotion via LINE and TikTok

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Objectives : To compare safe listening behaviors after hearing health promotion and to assess hearing screening results. Methods : This prospective cohort study enrolled 4th- and 5th-year medical students. Participants received hearing education content via LINE Official messages, with optional TikTok videos. Listening behaviors were assessed at baseline and three months. The students were self-screened for hearing using the hearWHO application and completed questionnaires. Results : Seventy students completed hearWHO screening, with a mean score of 62. 71 ± 12. 90 ; 8. 1% score ＞75 (pass). Of 497 students, 41 (8. 2%) completed the three-month follow-up ; 35 in LINE + TikTok and 6 in LINE. Significantly increased use of hearing protection in noisy places was observed only in the LINE + TikTok group ($p = 0.035$). No differences were found in listening volume or headphone use between or within groups. Conclusion : Low participation and a high rate of failed hearing screening reflected low awareness. An urgent initiative for a health promotion program among medical students is needed. Video platforms may enhance behavior change.

IS-003 Factors Associated with the Adoption of Baha After Preoperative Trial Use

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The Baha system is mainly indicated for patients in whom surgery is unlikely to improve hearing, such as external auditory canal atresia (EACA). Preoperative trial use is one of advantages of Baha, and we provide a one-month trial for patients. We retrospectively analyzed 33 patients who underwent trial use and compared those who were adopted with Baha (adopted group) with those who were not (not-adopted group) to identify factors influencing its adoption. We assessed age, sex, chronic otorrhea, EACA, air- and bone-conduction thresholds, and aided thresholds. Thirteen patients (39. 4%) adopted, and the adopted group showed a higher rate of EACA ($n = 5$ vs. $n = 1$, $p = 0.03$), lower bone-conduction thresholds (33. 4 ± 21. 4 vs. 45. 9 ± 17. 4 dBHL, $p = 0.04$), and lower aided thresholds (40. 1 ± 12. 3 vs. 52. 2 ± 17. 4 dBHL, $p = 0.04$). Among five EACA cases who adopted Baha, four were bilateral. Although unilateral EACA is not typically a candidate, one case with bilateral hearing loss was adopted. These findings suggest that it is desirable to present various hearing rehabilitation options, including BAHA, based on bone-conduction and trial-aided hearing levels.

IS-004 Significance of Screening for Mild Cognitive Impairment in Patients with Hearing Loss post-midlife

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Midlife hearing loss is recognized as a crucial modifiable risk factor for dementia. With the emergence of therapies targeting amyloid-β for Alzheimer's disease, the early detection and treatment of mild cognitive impairment (MCI) have become essential to prevent dementia. We propose that otolaryngologists should play a pivotal role by screening hearing-impaired patients for MCI, facilitating early access to dementia therapies alongside hearing care. We analyzed 79 patients (aged ≥55 years with bilateral hearing loss) who visited our center between September 2024 and November 2025. Cognitive function was assessed using the MoCA-J, with MCI defined as a MoCA-J score ＜26. Screening identified 35 patients (44.3 %) with MCI. Of the 32 patients recommended for specialist referral, 9 declined further evaluation, and 3 failed to attend. Consequently, 20 patients reached dementia specialists, and 13 were subsequently considered for amyloid-β targeting therapy. These suggest a high prevalence of undiagnosed MCI among patients with hearing loss, even in the absence of dementia symptoms. Otolaryngologists can play an important role in reaching early treatment for dementia.

IS-005 BERA Wave Latency Analysis in Children With Global Developmental Delay

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Background : Global developmental delay (GDD) is defined as multiple significant delays of developmental domains in children. Auditory pathway is essential in language development and could be measured with auditory brainstem response (ABR). Data on ABR wave latency in children with GDD remain limited. Objectives : This study aimed to analyze absolute latencies of waves I, III, and V and interwave latencies I-III, III-V, and I-V, and to evaluate their associations with selected risk factors. Methods : A cross-sectional observational study was conducted in 70 children with GDD (140 ears) aged 6 months to 5 years using medical record data from Dr. Cipto Mangunkusumo Hospital between 2021 and 2025. Results : Most subjects were male (71.4%) with a median age of 25 months, and language delay was the most affected developmental domain. A significant association was found in male sex with prolonged wave V latency. Conclusion : These findings suggest that sex-related differences may influence auditory brainstem maturation in children with GDD. ABR remains a valuable tool for early detection of central auditory pathway abnormalities in high-risk pediatric populations.

IS-006 The Association Between Brainstem Evoked Response Audiometry and Severity of Autism Spectrum Disorder. Children Aged 3-8 Years with Normal Hearing at Cipto Mangunkusumo Hospital Jakarta

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Background : Autism Spectrum Disorder (ASD) is a heterogeneous neurodevelopmental condition with diverse etiologies and comorbidities, leading to social communication deficits, repetitive behaviors, and restricted interests. Studies have linked ASD with prolonged Auditory Brainstem Response (ABR) latencies, but findings remain controversial. Aim : To determine whether ABR Click latencies of waves III and V and interpeak latencies III-V correlate with ASD severity based on Childhood Autism Rating Scale (CARS), in children aged 3-8 years with normal hearing. Methods : A cross-sectional study was conducted on 26 ASD children meet inclusion and exclusion criteria. Subjects were assessed for severity using CARS and ABR examination. Correlation tests were applied between ABR parameters and CARS scores. Results : No significant correlation was found between latencies of waves III and V, interpeak latencies III-V, and CARS scores ($r < 0.3$; $p > 0.05$). Descriptively, latency prolongation of waves III and V and interpeak latency I-III was observed in ASD children with normal peripheral hearing. Conclusion : Children with ASD display abnormal ABR characteristics indicate the potential of ABR as an objective tool to evaluate ASD development in the future but further research is needed. Keywords : autism spectrum disorder, auditory brainstem response, childhood autism rating scale.

IS-007 Machine learning model for automated calculation of intracochlear positional index in cochlear implantation

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Purpose : Training and refining both custom and pre-trained convolutional neural network (CNN) models for calculation of intracochlear positional index (ICPI) is as effective as manual calculation. The ICPI is a position factor that is known to influence cochlear implant performance, however manual calculation on computed tomography (CT) imaging is labour-intensive and prone to calculation errors. Automation of this process with machine learning via a custom built CNN model aims to reduce the difficulty in obtaining this position factor. Increasing the number of training epochs will improve accuracy. Our study aims to develop a validated CNN for ICPI calculation, which may improve surgical electrode positioning.

Methods : Custom built CNN model and pre-trained ResNet 50 model trained and validated on 34 images, and tested on eight CT images of temporal bones with cochlear implants. The ground truth was manually established by calculating the distance from modiolus to electrode (DE) and lateral wall (DL), and applied to derive the ICPI.

Results : The pre-trained ResNet-50 model outperformed the custom-built CNN, with improvement statistically significant on evaluation metrics. The ResNet-50 model has lower mean absolute error and root mean squared error (RMSE). In both models, increasing the number of training epochs from ten to 100 improves accuracy of the ICPI calculation.

Conclusion : Our machine learning models successfully achieved automation of ICPI calculation, with increasing accuracy increasing training epochs to 100 iterations. Future studies should explore optimizing these models and validating them on broader datasets to enhance their applicability in real-world scenarios by comparison to speech and audiometric outcomes.

IS-008 Rising-frequency chirp stimuli effectively enhance amplitude of 40-Hz auditory steady-state response

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(Introduction) The present study is the first study to examine the effect of changes in the group delay from click to CE-chirp signals on the efficiency of the 40-Hz Auditory Steady-State Response (ASSR). This study was conducted in collaboration with RION Co., Ltd. (Method) Ten native Japanese speakers with normal auditory health participated in the study. Participants were exposed to 10 chirp signals with varying group delays from the CE chirp to the click at 60 dB nHL. The 40-Hz ASSR was measured using magnetoencephalography (MEG) and evaluated for amplitude in the maximum signal channel at the click signal measured. (Results) The 40-Hz ASSR amplitude increased with the group delay of the chirp signal, was most efficient with the CE-chirp (longest group delay) and was significantly larger for the CE-chirp than with the click signal. (Discussion) This study demonstrated that the chirp signal efficiently elicits the 40-Hz ASSR, similar to ABR and the 90-Hz ASSR, more so than the click signal. However, it was suggested that the amount of the group delay in the chirp sound most efficiently eliciting each auditory response may be influenced by differences in frequency dependence.

IS-009 Analysis of Audiovisual Synesthetes' ROIs

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Objective : To investigate the mechanisms of audiovisual synesthesia by comparing ROI differences between synesthetes and non-synesthetes using high-density EEG. Methods : 14 normal-hearing young adults were divided into synesthesia ($n=4$) and control ($n=10$) groups. All underwent audiometry, MoCA, and Trail Making Tests. Brain activity was recorded via 256-channel EEG during rest and a synesthesia-induction task. Analysis included power spectrum comparison, sLORETA source localization, and auditory-visual cortex connectivity. Results : The synesthesia group showed significantly better performance on TMT-B ($p<0.05$). EEG revealed significantly higher delta/theta power and lower alpha1/alpha2/beta3/gamma power in synesthetes ($p<0.05$). sLORETA indicated reduced activity in left superior posterior cingulate (BA 31, alpha2) and insula (BA13, beta2) in synesthetes ($p<0.05$). Enhanced beta3 connectivity was found between right posterior cingulate (BA31) and right primary auditory cortex (BA41) in synesthetes. Conclusion : Audiovisual synesthetes exhibit superior visual-processing cognition and stronger ROI connectivity. High-density EEG effectively detects these neural correlates.

IS-010 Microstructure-Engineered Foams for Communication-Safe, Frequency-Selective Noise Control

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Noise is a pervasive but underestimated health risk, and most hearing protectors attenuate speech-relevant frequencies together with noise. Here we report a microstructure-engineered TiO_2@PU foam that enables frequency-selective, communication-friendly noise control in both wearable and architectural formats. TiO_2 refines the open-cell network and biases acoustic loss toward higher frequencies, yielding modest absorption in the 0.5-2 kHz speech band but strongly enhanced absorption at 4-6.5 kHz, supported by impedance-tube measurements and finite-element analysis. The foams remain soft yet mechanically robust for comfortable use. As earplugs, TiO_2@PU increases bilateral transparency in the 500-2,000 Hz band by ~41% versus commercial 3M 1,100 plugs, while maintaining comparable or stronger attenuation at 4-8 kHz and improving speech-in-noise recognition by ~14% (SNR = 0) and ~11% (SNR = −2). As panels in a murine noise-exposure model, TiO_2@PU reduces high-frequency ABR threshold shifts and preserves waveform morphology. Together, these results provide design guidance toward next-generation passive hearing protection that better balances noise reduction with communication needs.

IS-011 Developing a Patient-Reported Outcome Measure of Musical Reward in Individuals with Hearing Loss

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Objective: Existing music outcomes in hearing loss (HL) emphasize perceptual abilities while neglecting emotional, cognitive, and social aspects of music enjoyment. This study aimed to develop an item bank as the foundation for a music enjoyment patient-reported outcome measure (PROM) across the HL spectrum. Methods: Following PROMIS guidelines, forty-seven participants across a spectrum of hearing (ages 18-89; normal hearing, unaided HL, hearing aid users, and cochlear implant users) completed semi-structured interviews exploring music experiences. An abductive mixed-methods approach refined a conceptual framework of musical enjoyment. Two independent reviewers coded transcripts and identified key domains. An initial item pool was generated and refined through cognitive interviews. Results: Five hearing-related factors (music perception, preference, sound quality, listening environment, and social context) influenced passive and active music engagement. These pathways shaped emotional responses and mood regulation, moderating musical reward. An initial 88-item pool was developed. Conclusion: This study establishes a multidimensional, HL-specific framework for musical reward.

IS-012 Vitamin E Supplementation Reduces Oxidative Stress in Noise-Exposed Industrial Workers : An RCT

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Abstract Body (1, 085 characters) : Objective : To determine if tocotrienol-rich vitamin E supplementation protects industrial workers from noise-induced oxidative stress and hearing loss.

Methods : This randomized, double-blind, placebo-controlled trial involved 90 workers aged ≤50 years, exposed to occupational noise ≥78dB. Subjects were randomized to receive either vitamin E (300IU tocopherols + 30mg tocotrienols) or a placebo twice daily for 3 months. Evaluations included high-frequency Pure Tone Audiometry (4-8kHz) and serum oxidative markers : Malondialdehyde (MDA), Glutathione Peroxidase (GPX), and Superoxide Dismutase (SOD).

Results : Seventy-four subjects completed the study. The vitamin E group demonstrated a highly significant reduction in MDA levels ($p = 0.001$), indicating significant reduction in reactive oxygen species activities. Audiometric analysis revealed a significant improvement at 8kHz in the right ear ($p < 0.05$) post-supplementation. No significant changes were observed in the placebo group. Variations in antioxidant enzymes suggested possible baseline dietary influences.

Conclusion : Tocotrienol-rich vitamin E effectively mitigates systemic oxidative stress and offers potential otoprotection at specific high frequencies in noise-exposed workers.

IS-013 Oxidative stress in prenatal stress model C57BL/6 mouse showing accelerated hearing loss.

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Background Prenatal stress is associated with an increased risk of adult-onset diseases, and recent studies have raised concerns about long-term health effects in individuals exposed to prenatal stress during the COVID-19 pandemic. Although animal studies suggest that prenatal stress affects the auditory system, the underlying mechanisms remain unclear. We investigated the role of oxidative stress using a restraint-induced prenatal stress model in C57BL/6 mice, which develop progressive hearing loss in mid-adulthood. Methods Pregnant C57BL/6 mice were assigned to prenatal stress or control groups. Prenatal stress was induced by restraint stress during gestation. In offspring from both groups, ABR thresholds were measured, cochlear hair cells were quantified, and catalase expression in the cochlea was analyzed using Western blotting and quantitative RNA analysis. Results Offspring exposed to prenatal stress showed significantly elevated ABR thresholds, increased cochlear hair cell loss, and reduced catalase expression compared with controls. Conclusions Prenatal stress induces long-term auditory dysfunction, potentially through oxidative stress-related mechanisms.

IS-014 From early techniques to modern practice : injection laryngoplasty in laryngeal neuropathy

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Injection laryngoplasty has been introduced for managing unilateral vocal fold paralysis (UVFP) for more than 100 years. Bruening reported his paraffin injection principle in 1911. The materials, techniques and purposes of injection has been changed. Teflon paste was popular at 70-80's for its stable and easy-manipulate characteristics. But the reported migrating granuloma complication limit in its clinical feasibility. Autologous graft was reported in the 50's. Self-cartilage, bone dust and fat were introduced for injection into the vocal fold. Since the advancement of the laryngoscopy and imaging system, the un-sedated injection technique popularized. Office-based injection laryngoplasty for UVFP has become one in the standard protocol as an immediate therapy option. Many allogenic or synthetic materials are reported to be effective in improving the voice and swallowing function of UVFP. This talk will review the historical development of injection laryngoplasty and the current state of the art in managing UVFP, along with recent advances in laryngeal neuropathy research.

IS-015 OPTIMIZING LARYNGOSCOPE HANDLING IN OFFICE-BASED LASER SURGERY FOR VOCAL CORD, SUBGLOTIC AND TRACHEA

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Office-based laser procedures for vocal cord and tracheal disorders are increasingly utilized due to multiple advantage. Their success, however, relies heavily on optimal laryngoscope handling, which determines visualization quality, laser precision, and procedural safety. This presentation summarizes practical and ergonomic techniques for effective laryngoscope handling during office-based laser surgery involving the vocal cords, subglottis, and trachea. The discussion is based on clinical experience, literature review, and procedural analysis. Techniques are evaluated according to exposure quality, stability, ease of laser targeting, and adaptability to anatomical variations. Key elements include good anesthesia, proper patient positioning, appropriate laryngoscope selection, reliable stabilization methods, and coordinated hand-instrument techniques. Operator ergonomics are emphasized to prevent fatigue and maintain fine motor control during delicate laser application. Effective laryngoscope handling enhances laser safety by reducing collateral tissue injury and improving targeting accuracy, particularly in narrow airway segments.

IS-016 Intracordal Trafermin Injection for ARVA and UVFP : What We Know or Not

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Since Dr. Hirano first clinically applied intracordal trafermin injection (ITI) in age-related vocal fold atrophy (ARVA) in 2009 and demonstrated its effectiveness in improving voice, our group has recognized the potential of ITI and has been investigating its safety, efficacy, optimal dose, timing, and predictors. This reviews what is known or not about ITI to date. Regarding safety during the injection, ITI was shown to be safe even in high-risk patients. Early post-injection complications were comparable to those seen with other durg, there were no long-term complications such as infection, and the transient increase in serum bFGF remained within the physiological range. Regarding efficacy, ARVA patients experience early voice improvement and the effects last for one year. In unilateral vocal fold paralysis (UVFP), increasing the dose is associated with greater voice improvement, but this remains controversial in ARVA. Regarding the timing, early ITI after the onset of UVFP yields better results, and several pre-injection voice parameters were identified as predictors of improvement for both ARVA and UVFP. Further multicenter prospective comparative studies are needed for ITI.

IS-017 Acoustic Characterization of Hypernasality Using Mel-Filterbank Analysis

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Aim : This study aimed to quantify acoustic features of hypernasality using mel-filterbank analysis and establish an objective indicator. Methods : Patients suspected of hypernasality at Showa Medical University Dental Hospital were enrolled. Speech samples were rated by speech-language-hearing therapists on a 4-point scale (0-3). Scores ≥1 indicated hypernasality. The short-time Fourier transform was applied to the audio signals sampled at 16 kHz, and the time-averaged log-power of each band was extracted using a 20-bin mel filterbank. Differences were evaluated by Welch's t-test. Results : A total of 106 cases were analyzed (mean age 7.25±1.64 years ; 57% boys). Diagnoses included cleft palate (40%), submucous cleft palate (31%), and congenital velopharyngeal insufficiency (17%). In the F1-F2 range, hypernasal speech showed higher band energy than non-hypernasal speech (−37.6±4.25 vs. −42.7±4.25 dB ; difference +5.1±1.30 dB, $p<0.001$). In the F2-F3 range, band energy was lower in hypernasal speech (−30.8±8.06 vs. −24.38±4.57 dB ; difference −6.4±1.45 dB, $p<0.001$). Conclusion : Mel-filterbank analysis identified quantitative acoustic features characteristic of hypernasality.

IS-018 Real-time light-guided vocal fold injection for unilateral vocal fold paralysis

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Objective : To evaluate the safety and feasibility of office-based Real-time light-guided Vocal Fold Injection (RL-VFI) with hyaluronic acid (HA) for unilateral vocal fold paralysis (UVFP). Methods : This retrospective cohort study analyzed 378 consecutive RL-VFI procedures in 257 UVFP patients. The technique utilized simultaneous light guidance via a cricothyroid approach to enhance needle tip precision. Voice outcomes (VHI-10, GRBAS, acoustic/aerodynamic studies) and complications were monitored at baseline and 4 weeks post-procedure. Results : Left-sided paralysis predominated (83.7%), primarily due to surgery (63.4%) or metastasis (26.1%). HA was delivered to the intended target under light guidance without mucosal penetration. No serious complications occurred. Among 180 cases with complete assessments, significant improvements were seen in VHI-10, GRBAS, maximum phonation time, and mean expiratory airflow. Conclusions : RL-VFI with HA is a safe, feasible technique for UVFP. It provides precise real-time needle localization, facilitating accurate targeting and significant functional improvements.

IS-019 Correlation of acoustic analysis to perceptual and psychosocial disorders of dysphonia in Parkinson

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Background : Dysphonia is a common non-motor symptom of Parkinson's disease that negatively impacts quality of life. Dysphonia assessment includes subjective, perceptual, and objective evaluations, such as acoustic analysis using the Multi-Dimensional Voice Program (MDVP), perceptual grading via GRBAS, and psychosocial impairment via VHI-30. Objective : To evaluate the correlation between acoustic analysis and both perceptual and psychosocial dysphonia assessments in patients with Parkinson's disease. Methods : This was a cross-sectional analytic observational study involving 25 Parkinson's patients at Cipto Mangunkusumo National Hospital. Voice parameters were analyzed using MDVP, perceptual scoring was conducted by laryngology consultant using GRBAS, and psychosocial impact was measured using the VHI-30 questionnaire. Correlation analyses were performed using Pearson and Spearman's test. Results : Significant correlations were found between certain acoustic parameters (such as jitter, shimmer, and NHR) and GRBAS and VHI-30 scores ($p<0.05$). Additionally, GRBAS scores showed a significant association with VHI-30 results. Conclusion : Acoustic analysis correlates with both perceptual and psychosocial assessments of dysphonia in Parkinson's patients. MDVP, GRBAS, and VHI-30 are valuable tools for comprehensive dysphonia evaluation and may aid in early detection and treatment monitoring in Parkinson's disease. Keywords : Parkinson's disease, dysphonia, acoustic analysis, GRBAS, VHI-30

IS-020 Unilateral vocal fold paralysis as an independent risk factor for depression : a cross-sectional study using BDI and VHI-10

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Unilateral vocal fold paralysis (UVFP) causes significant voice dysfunction and may adversely affect psychological well-being. This cross-sectional study compared psychological distress between patients with UVFP and those with other benign vocal fold disorders. Patients diagnosed between 2017 and 2020 completed the Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and the Voice Handicap Index-10 (VHI-10). Patients with UVFP demonstrated significantly higher BDI scores and a higher prevalence of moderate-to-severe depression than patients with other vocal fold disorders. In the UVFP group, BDI scores were positively correlated with VHI-10, indicating greater perceived voice-related disability among patients with more severe depressive symptoms. Multivariable logistic regression analysis, adjusted for age, sex, and disease duration, identified UVFP as an independent predictor of moderate-to-severe depression. These findings suggest that UVFP is associated with a greater psychological burden beyond voice impairment alone, highlighting the importance of incorporating routine psychological screening into the comprehensive management of patients with UVFP.

IS-021 QUALITY OF LIFE IN PATIENTS FOLLOWING TOTAL THYROIDECTOMY VS HEMITHYROIDECTOMY FOR THYROID CARCINOMA

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Total thyroidectomy is the standard treatment for thyroid carcinoma, yet its impact on patient quality of life remains controversial. This study systematically analyzes quality of life outcomes in patients following total thyroidectomy compared to hemytyroidectomy. Methods : A systematic search was conducted across Medline, Embase, and Cochrane databases (2011–2024). Inclusion criteria encompassed studies evaluating quality of life in thyroid carcinoma patients using validated instruments including HINT-20, SF-36, THYCA-QoL, and EORTC QLQ-H & N35. Results : From 2, 507 articles, 8 high-quality studies involving 4, 847 patients were analyzed. Patients undergoing total thyroidectomy experienced more severe physical function impairment compared to hemithyroidectomy (mobility scores : 68. 4 vs 74. 2 ; $p < 0.05$). Fatigue was reported 66% of total thyroidectomy patients versus 42% in hemithyroidectomy patients. Overall, 77% of patients reported quality of life issues, primarily fatigue (34%) and voice disturbances (15%). Conclusions : Total thyroidectomy causes more significant physical and social function impairment compared to hemithyroidectomy, despite equivalent long-term global quality of life.

IS-022 Adherence to Prophylactic Swallowing Exercises in Head and Neck Cancer : Evidence from India

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Background : In low- and middle-income countries like India, limited access to speech-language pathology services highlights the need to examine adherence to different prophylactic swallowing exercise (PSE) delivery models in head and neck cancer (HNC). This study examined adherence to a six-week PSE program delivered through clinician-directed (CD) and self-directed (SD) modes among HNC patients undergoing (chemo) radiotherapy and explored associations with patient- and clinical-related factors. Methods : In this prospective study, 104 HNC patients were randomized to CD ($n = 53$) or SD ($n = 51$) programs. The CD group received weekly in-person supervision, while the SD group practised independently with weekly telephone support. Adherence was calculated from weekly exercise logs. Results : Adherence was significantly higher in the CD group than the SD group and declined over time in both groups, particularly after week four. Service delivery mode was the only factor associated with adherence. Conclusion : CD therapy supported better and sustained adherence, emphasizing the need for adherence-enhancing strategies for SD rehabilitation in resource-limited settings.

IS-023 AMBISPECTIVE EVALUATION OF SINONASAL TUMORS FOR SURVIVAL AND QUALITY OF LIFE

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We are conducting an Ambispective cohort study of patients with sinonasal tumour treated at our centre in which demographic, clinicopathological, treatment interventions, survival and QoL related data is being captured. Interim data is available for 24 patients till now. Median age of patients were 48 years. Males & female ratio- 2 : 1. Tumor staging- T1-1, T2-0, T3-4, T4a-14, T4b-5 patients. Only 1 patient had node positive disease.Most common histopathology was SCC-7 patients, followed by Adenoid cystic carcinoma- 5 , SNUC- 4 , melanoma- 3, Adenocarcinoma-2, 1 patient in DEK-AFF2 rearranged sinonasal carcinoma, Teratocarcinosarcoma, Small + squamous cell carcinoma each. 18 patients underwent upfront surgery, 4 patients underwent neoadjuvant chemotherapy and 2 patients were on palliative chemotherapy. 22 patients recieved adjuvant treatment while 2 patients defaulted. 3 patients failed loco-regionally while 2 patients had distant Metastasis. Median DFI for recurrent cases was 11 months. Updated result including statistical analysis for survival and quality of life assessment will be presented in later timeline.

IS-024 Adherence to the SPIKES Protocol in Breaking Bad News in Head and Neck Cancer: A Prospective Study

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Background: Breaking bad news is a crucial and challenging component of head and neck cancer care. The SPIKES protocol offers a structured approach, though real-world adherence varies. Objectives: To evaluate adherence to the SPIKES protocol among fellows and residents during bad news disclosure in head and neck cancer patients and to identify factors affecting patient and attendant experience. Methods: A prospective observational study using structured survey questionnaires assessed trainee adherence to individual SPIKES components and post-consultation patient and attendant perceptions. Results: Overall adherence to the SPIKES protocol was 70%. The Invitation step had the lowest adherence (45%). Language barriers, logistical constraints, and limited consultation time adversely affected patient experience. Conclusion: Structured communication in breaking bad news is achievable in routine practice. The SPIKES protocol functioned as a practical checklist rather than a rigid framework, supporting effective clinician-patient communication.

IS-025 Risk Factors and Management of Healthcare-Associated Infections in Head and Neck Cancer Surgery

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Head and neck cancer surgery involves multiple operative fields, prolonged surgical time, complex reconstruction, and postoperative risks such as dysphagia and tracheostoma management. As a result, healthcare-associated infections (HAIs), including surgical site infections (SSIs), occur at a high rate. We retrospectively analyzed 159 patients with head and neck cancer who underwent reconstructive surgery at our department between 2020 and July 2025. HAIs were observed in 68 cases (42%), and multivariate analysis identified operative time, blood loss, and the presence of a tracheostomy as significant risk factors for HAIs. Among the HAIs, SSIs were the most common, occurring in 31 cases (19%), followed by respiratory tract infections. Bacterial cultures from SSI wounds frequently demonstrated polymicrobial infections predominantly consisting of oral commensal flora. Although HAIs are influenced by multiple factors, including host related factors, tumor characteristics, reconstruction, and postoperative dysphagia, we considered that establishing a perioperative infection control bundle focusing particularly on wound management, swallowing function, and tracheostomy care is essential.

IS-026 Outcomes after head and neck cancer in patients with dental scaling: a retrospective cohort study

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Our purpose was to evaluate the outcomes after admission of head and neck cancer (HNC) in patients with and without dental scaling (DS). We used data from public health insurance and identified 121,973 patients with admission of HNC aged ≥ 18 years who received inpatient care in 2006-2020. The outcomes during the admission of HNC were compared between patients who had received DS or not within the previous 24 months before admission. The adjusted odds ratios (ORs) and 95% confidence intervals (CIs) of complications and mortality associated with DS were analyzed. We found that DS was significantly associated with reduced risks of septicemia (OR 0.84, 95% CI 0.81-0.88), stroke (OR 0.87, 95% CI 0.80-0.95), pneumonia (OR 0.88, 95% CI 0.84-0.91), urinary tract infection (OR 0.88, 95% CI 0.80-0.97), and 30-day in-hospital mortality (OR 0.88, 95% CI 0.85-0.92). Compared with HNC patients without DS, HNC patients with DS had a shortened length of hospital stay, decreased medical expenditures, and reduced risks of intensive care after admission of HNC. In conclusion, patients with HNC who received regular DS had reduced complications and mortality compared to those without DS.

IS-027 Residual Dizziness following BPPV Treatment.

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Despite the high success rate of canalith repositioning maneuvers (CRMs) in the treatment of benign paroxysmal positional vertigo (BPPV), a growing number of patients report residual dizziness symptoms that may last for a significant time. Although the majority of BPPV cases can be explained by canalolithiasis, the etiology is complex. Consideration of the individual patient's history and underlying pathophysiology of BPPV may offer the potential for treatment approaches supplementary to CRMs, as well as a promising alternative for patients in whom CRMs are contraindicated. This article provides a summary of the possible underlying causes of BPPV and residual dizziness, along with suggestions for potential management options that may be considered to relieve the burden of residual symptoms.

IS-028 Educational Gaps in Symptom-Based Evaluation of Dizziness in the Emergency Department

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Background : The Timing, Triggers, and Targeted Examinations (TiTrATE) framework links symptom timing and triggers to bedside vestibular examinations in emergency department (ED) dizziness, but real-world use remains uncertain. Methods : We retrospectively reviewed dizziness visits to an ED from January to December 2024. From charted history, cases were classified as acute vestibular syndrome (AVS), triggered episodic vestibular syndrome (tEVS), spontaneous episodic vestibular syndrome (sEVS), or indeterminate. We assessed whether documented bedside examinations and diagnostic tests matched each category, including the Head-Impulse, Nystagmus, and Test-of-Skew (HINTS) examination, positional testing (such as Dix-Hallpike or Head roll test), and neuroimaging. Results : Among 442 patients, AVS 18.6%, tEVS 42.5%, sEVS 12.0%, and indeterminate 26.9%. In AVS, HINTS documentation was 19.5%, whereas MRI was performed in 35.8%. In tEVS, positional testing was infrequently documented. Conclusions : Symptom-based diagnostic strategies were inconsistently applied in ED dizziness care. Frequent indeterminate classification and limited bedside vestibular assessment indicate important educational gaps.

IS-029 Withdrawn

IS-030 Evaluation Battery for Severity of Menière's Disease : Towards a Novel Classification Proposal

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Objective : To develop a multidimensional classification of Menière's disease (MD) integrating audio-vestibular tests and vertigo burden. Methods : We studied 101 unilateral MD patients undergoing pure tone audiometry (PTA), vestibular-evoked myogenic potentials (VEMPs), video head impulse testing (vHIT), and rotary chair testing (RCT). Machine-learning models identified variables associated with DHI scores. Cluster analysis using PTA, number of affected vestibular organs (NAVO), and vertigo attacks over 6 months (NVA) derived MD subtypes. Results : RCT showed the highest abnormal rate (~69.31%) and was the strongest predictor of DHI, followed by anterior-canal vHIT and cervical VEMP. A GA-NN indicated that NAVO alone predicted DHI severity with accuracy comparable to the full vestibular battery. Using bi-categorized NAVO plus PTA and NVA, five clusters were identified, from Cluster I (27.72%) to Cluster V, differing in 2-year management and distributions of affected organs. Conclusions : Classification based on PTA, NVA, and NAVO yields a clinically meaningful staging system for monitoring progression and guiding individualized treatment.

IS-031 Decrease in atmospheric pressure could increase endolymphatic space volume in Meniere's disease

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Patients with Meniere's disease (MD) often suffer from vertiginous symptoms during bad weather. Endolymphatic hydrops (EH) have been thought to be the pathological basis of MD. However, the relationship between EH and weather has not been clarified. Endolymphatic space (ELS) volume can be evaluated using three-dimensional analysis of 3T-MRI. In this study, we examined the correlations between the 24-h atmospheric pressure change from the day before MRI scanning and the ELS rates in patients with unilateral MD (uMD) and in patients with chronic rhinosinusitis as a control group. Atmospheric pressure data for the day before and on the day of each patient's MRI were obtained from the Japan Meteorological Agency data. There was no significant correlation between changes in atmospheric pressure and the ELS rate on the affected and healthy sides, or bilaterally, in the control group. However, in those with developed MD, a significant negative correlation was observed between changes in atmospheric pressure and the vestibular ELS rate on the affected side. Negative atmospheric pressure changes may influence vestibular ELS volume in patients with moderate hearing impairment.

IS-032 Glycemic Control and Its Association with Hearing Loss and Retinopathy in Diabetes Patients

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Diabetes mellitus (DM) is a chronic metabolic disorder with hyperglycemia due to insulin deficiency or resistance, causing microvascular and macrovascular complications. While diabetic retinopathy is a major cause of blindness, hearing loss in DM is less studied. This cross-sectional study at Saidu Group of Teaching Hospital (Oct 2024-Feb 2025) included 80 diabetic patients to assess glycemic control (HbA1c, FBS, RBS), hearing loss (audiometry), and retinopathy (fundoscopy), along with age, disease duration, and comorbidities. Retinopathy was observed in 44% of patients, mostly moderate (18%), and hearing loss in 25%, mainly mild (10%). Poor glycemic control was associated with higher prevalence and severity of both complications. Shared mechanisms, including oxidative stress and vascular dysfunction, likely contribute. These findings highlight the importance of early detection, strict glycemic control, and integrated care to reduce complications and improve quality of life. Increased awareness and further research are needed, particularly in resource-limited settings, to optimize management of diabetic retinopathy and hearing impairment.

IS-033 A case of presbycusis benefited by a consultation-liaison psychiatry and hearing intervention

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Background : Hearing loss is a common sensory impairment in the elderly and can increase the risk of mental disorders such as dementia and depression. Early intervention for hearing loss with hearing aids (HA) could attenuate or prevent these mental health issues. However, we frequently experience that providing HA usage in an aged patient is challenging due to primary mental disorders.

Patient : A 78-year-old female suffering from bilateral severe sensorineural hearing loss, who had tried using HA several years before but failed it. She complained of auditory hallucinations, reduced activities of daily living (ADL), and difficulty in communication caused by hearing loss. We consulted her mental status with a psychiatrist, which led to the diagnosis of depression and drug-induced Parkinsonism. The psychiatrist provided her with the proper approach to improve her ADL and mental state, which successfully enabled us to introduce HA in her.

Conclusion : A multidisciplinary approach incorporating psychiatric assessment and intervention could be considered in hearing management of elderly population.

IS-034 A randomized controlled trial of systemic steroid therapy with ITSI for ISSNHL

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Idiopathic sudden sensorineural hearing loss (ISSNHL) lacks a definitive standard treatment, and the therapeutic value of systemic steroid therapy (SST) or intratympanic steroid injection (ITS) remains uncertain. This open-label, randomized controlled trial evaluated whether high-dose SST combined with ITS provides superior auditory outcomes compared with a low-dose regimen. Adults presenting within 14 days of ISSNHL onset were assigned to either a high-dose or low-dose systemic steroid protocol, with both groups receiving four consecutive days of intratympanic dexamethasone. Among 57 participants analyzed, recovery rates at six months did not differ significantly between groups, and improvements in pure-tone thresholds and speech discrimination scores were comparable. The findings showed no dose-related advantage of SST, indicating that adding SST to ITS does not augment the overall therapeutic effect.

IS-035 Early Hyperbaric Oxygen Therapy With Steroid Treatment For Sudden Sensorineural Hearing Loss

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Objective : Evaluate hearing outcomes of early hyperbaric oxygen therapy (HBOT) with steroid treatment in sudden sensorineural hearing loss (SSNHL) and the effect of treatment timing.

Methods : Retrospective review of 7 adults with severe-to-profound SSNHL (PTA ≥80 dBHL) treated with HBOT after systemic ± intratympanic steroids. HBOT : 2. 4 ATA, 107 min/session, 10-20 sessions. Patients were stratified as early (≤4 weeks, n = 4) vs delayed (>4 weeks, n = 3). Primary outcome was PTA gain ; AAO-HNS partial recovery defined as ≥15 dB.

Results : Median PTA improved from 110 dBHL (IQR 105-120) to 89 dBHL (IQR 77-98), median gain 22 dBHL (p = 0. 018). Early HBOT : 100% response (4/4) with median gain 25. 5 dBHL (IQR 19. 8-39. 3). Delayed HBOT : 67% response (2/3) with median gain 15 dBHL (IQR 7. 5-43. 0 ; range 0-100). One case that started HBOT early (less than 10 days) had regained normal hearing.

Conclusion : Early HBOT produces significant hearing improvement in SSNHL. Initiation within 4 weeks yields more consistent outcomes than delayed treatment, supporting earlier salvage referral.

IS-036 UNVEILING THE IMPACT OF DENGUE FEVER ON HEARING HEALTH : A CASE CONTROL STUDY

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BACKGROUND : Dengue fever, a mosquito-borne viral illness, has varied systemic manifestations, but its auditory effects remain underexplored. METHODOLOGY : A prospective case-control study was conducted on 79 patients—40 dengue-positive (NS1 antigen confirmed) and 39 with other febrile illnesses not known to cause hearing loss. All participants underwent otological examination and pure tone audiometry. RESULTS : Hearing loss was observed in 15.2% of dengue patients, with none in controls ($p<0.001$). The odds ratio for hearing loss in dengue was 34.6 (95% CI : 1.97-610). Dengue patients exhibited significantly elevated air and bone conduction thresholds ($p<0.001$). Lower platelet counts and higher CRP levels correlated with hearing loss, suggesting vascular and inflammatory mechanisms. CONCLUSION : Dengue fever may be associated with reversible sensorineural hearing loss, likely due to microvascular and inflammatory injury to the cochlea. Early audiological screening is recommended in dengue cases.

IS-037 The History and Future Perspectives of Research on Laryngeal Papillomatosis

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Laryngeal papillomatosis is a benign yet refractory disease caused by HPV 6/11 and characterized by multifocal growth and frequent recurrence. Although surgery is the standard treatment, effective strategies for highly recurrent disease remain limited, and many institutions combine various adjuvant therapies.

Our department pioneered the introduction of cidofovir in Japan and has treated 13 patients. Despite its international recognition and common postoperative use, its efficacy is modest ; nearly half of the cases showed no improvement in our clinical study, and the only randomized controlled trial did not demonstrate significant benefit. Thus, cidofovir cannot be considered a definitive therapy.

Progress in pathogenesis research and novel treatment development of Laryngeal papillomatosis requires reliable infected-cell and tissue models. Although such models have not yet been established, recent domestic progress includes successful development of an infected-cell model, and our department is developing a chick egg based tissue model. This presentation reviews these advances and discusses future directions, including potential therapeutic applications of the amniotic membrane.

IS-038 Functional Analysis of HPV6 Isoforms in Normal Laryngeal Epithelium-Derived CR Cells

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Background : Recurrent respiratory papillomatosis (RRP) is primarily driven by persistent HPV6 infection. HPV6 generates multiple transcript variants (isoforms) through alternative splicing ; however, the functional roles of these isoforms in epithelial cells remain unclear. Objective : To identify HPV6 isoforms involved in RRP pathogenesis and determine their functional impact on epithelial cells. Methods : Conditional reprogramming (CR) cells derived from normal human laryngeal epithelium were transduced with a GFP-coexpressing retroviral vector encoding HPV6 isoform X or with an empty vector control. Vector introduction and cell proliferation across serial passages were evaluated. Results : Isoform X was successfully transduced into CR cells and stably maintained over serial passages. Cells expressing isoform X showed a trend toward increased proliferation compared with control cells. Conclusion : HPV6 isoform X may promote epithelial cell proliferation and contribute to early events in RRP pathogenesis. Further broader analyses across multiple isoforms and molecular phenotypes will be essential to elucidate isoform-specific mechanisms.

IS-039 ACUTE EPIGLOTTIC ABSCESS IN AN ADULT

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A 32 year old man with NKMI p/w 3 day history of fever & sore throat a/w odynophagia, dysphagia, poor oral intake, & voice change. He had no trismus or noisy breathing. He was alert, not tachypnoeic, clinically dehydrated, & able to speak in short sentences, with good 02 saturation. Intraoral examination : right peritonsillar bulge extending to the posterior tonsillar wall with mild uvular deviation & multiple soft palate ulcers. Neck examination : right anterior neck tenderness without a palpable mass. FNPLS : swollen epiglottis with normal, mobile vocal cords. Blood IX : raised WBC & CRP. Neck x-ray : +ve thumb sign. Initially treated as acute epiglottitis & admitted to ICU for IV ceftriaxone, dexa & neb adrenaline. CT neck : heterogeneous hypodense collection in the right supraglottic region & lateral pharyngeal wall extending to the epiglottis. Emergency examination under anaesthesia, direct laryngoscopy, incision & drainage were performed, with pus drained from the epiglottis, right lateral pharyngeal wall, & retropharyngeal wall. Symptoms resolved, repeat endoscopy was normal, & he was discharged well on oral antibiotics. Follow up review showed full recovery.

IS-040 Fiberoptic Laryngoscopic Findings by RFS in LPR Patients at Dr. Haryoto Hospital (2022–2025)

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Laryngopharyngeal reflux (LPR) causes various laryngeal and pharyngeal symptoms, but data on clinical presentation and laryngoscopic findings in routine ENT practice remain limited. This retrospective descriptive study aimed to describe symptom profiles and fiberoptic laryngoscopic findings based on the Reflux Finding Score (RFS) in patients with suspected LPR at Dr. Haryoto Regional General Hospital from 2022 to 2025. Medical records of 71 patients were reviewed. The most common symptoms were globus sensation (42.3%) and dysphonia (29.6%). Fiberoptic laryngoscopy showed predominant posterior laryngeal involvement, especially in the arytenoid region, with edema (73.2%) and hyperemia (70.4%) as the most frequent findings. Most patients demonstrated multiple abnormalities involving more than one laryngeal structure. These findings indicate that suspected LPR is characterized by globus sensation and dysphonia with diffuse posterior laryngeal inflammatory changes, and that RFS-based evaluation is useful in daily clinical practice.

IS-041 Airway Findings in Patients Suspected of Laryngopharyngeal Reflux (LPR) Aged 6 Months - 5 Years

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Background : Laryngopharyngeal Reflux (LPR) is a manifestation of extraesophageal reflux with non-specific symptoms, and a lack of understanding in children. The absence of guidelines for diagnosis and financial burden prompted this study.

Objective : To explore the subjective and objective findings in children under 5 years old, aiming to develop a scoring system.

Methods : This descriptive analytic cross-sectional study to examine subjective symptoms and objective findings in pediatric LPR patients aged 6 months to 5 years.

Results : Out of 81 subjects, 59.3% were male. Three age groups were identified : 6-12 months (25 subjects), >1-3 years (40 subjects), and >3-5 years. Younger patients had more respiratory complaints, while older children had gastrointestinal symptoms. Tonsil hypertrophy was highest in the 1-3 years group (35%), while extensive cobblestoning was most prevalent in the >3-5 years group (75%). Vocal fold edema was observed in 45% of the 1-3 years group. Refluxate was most frequent in the youngest group (72%).

Conclusion : Subjective findings overlapped, with objective findings varying across age groups. Aggravating factors like NGT use and crying may influence these findings, with gold standard confirmation still needed.

Keywords : Laryngopharyngeal reflux, pediatrics, aerodigestive complaints, nasolaryngoscopy

IS-042 The Efficacy and Safety of Ultrasound in Percutaneous Dilatational Tracheostomy : A Meta-analysis

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Introduction : Percutaneous dilatational tracheostomy (PDT) is a standard ICU procedure. While traditional anatomical landmark-guided (ALG) techniques are common, ultrasound guidance (USG) has emerged as a visual adjunct. This study compares USG versus ALG-PDT regarding major bleeding, first-puncture success, complications, and operative time. Methods : PubMed, Cochrane, and EMBASE were searched for RCTs from January 2020 comparing USG and ALG-PDT. Primary outcomes were major bleeding and first-puncture success. Secondary outcomes included periprocedural complications and operative time. Meta-analysis was performed using R Studio. Results : Three RCTs (n = 443) were included. USG significantly reduced major bleeding (OR : 0. 35 ; 95% CI [0. 12-0. 88] ; p < 0. 02) and increased first-puncture success (OR : 4. 35 ; 95% CI [2. 32-6. 58] ; p < 0. 001). USG was also associated with fewer overall complications (OR : 0. 31 ; 95% CI [0. 20-0. 57] ; p < 0. 001). No significant difference was found in operative time (MD : −0.61 ; 95% CI [−4.20-2.66] ; p = 0. 061). Conclusions : Ultrasound guidance significantly improves PDT safety and success rates without increasing procedural duration.

IS-043 Long-term functional outcomes of paediatric cochlear implantation in cochlear nerve deficiency

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Introduction : Cochlear implantation is an effective method for auditory rehabilitation in children with severe to profound sensorineural hearing loss. In recent years, the candidacy criteria have been expanded in which children with inner ear malformations with or without cochlear nerve deficiency (CND) or additional disabilities are considered candidates.

Objectives : To assess the long-term outcome of auditory performance and speech intelligibility in children with CND who received cochlear implants (CI) in our centre.

Methods : A retrospective review of the UKM Cochlear Implant Program from May 2007 to May 2024 was conducted. Preoperative assessments, including imaging findings (MRI and CT scan), unaided and aided hearing thresholds, were retrieved from the patient database. Outcome measures included aided hearing thresholds with cochlear implants, Categories of Auditory Performance II (CAP II), and Speech Intelligibility Rating (SIR) scores at multiple time points up to 5 years post-cochlear implantation.

Results : Thirteen children with CND, aged between 1 year 4 months and 5 years 2 months, were included in this study. On imaging, majority (61. 5%) of the cochlear nerve were not visualized at the level of internal auditory canal. Communication modalities varied, with auditory-verbal (23. 1%), total communication (53. 8%), and sign language (23. 1%) being employed. Significant improvements in aided hearing thresholds were observed one-year post-implantation, reaching a ceiling effect (20-30 dB HL). CAP II scores demonstrated a statistically significant improvement up to 3 years post-implantation, plateauing thereafter at an average score of 5, indicative of understanding common phrases without lipreading. SIR scores exhibited continued improvement up to 5 years post- implantation.

Conclusion : Cochlear implantation yielded significant benefits for pediatric patients with CND, highlighting the importance of extending access to this transformative technology. Cochlear nerve deficiency on imaging does not exclude the function of residual hearing.

IS-044 Assessment of surgery duration of cochlear Implant surgery by computed tomography

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Cochlear implantation is the only effective treatment for severe to profound sensorineural hearing loss, and preoperative TBCT is essential for surgical planning. This retrospective cross-sectional study analyzed the association between TBCT findings and surgical outcomes in cochlear implant surgery. 45 patients who underwent implantation at the FCHM between 2016 and 2023 were included. CT images were scored using the 10-point system described by Vaid et al. and correlated with operative time and complications. All surgeries were performed by one surgeon. The mean operative time was 105.4 ± 22.8 minutes. Hypo- or non-pneumatized mastoid, anterior FN displacement, unfavorable cochlear basal turn-ossicular chain relationship, and uneven internal auditory canal positioning were frequent findings. Narrow FN canal, anterior facial nerve displacement, cochlea-ossicle connection, and uneven auditory canal position were significantly associated with prolonged operative time ($p < 0.05$). CT scores ≥8 were significantly associated with facial nerve paralysis. Preoperative CT evaluation is therefore valuable for predicting surgical difficulty and complication risk in cochlear implantation.

IS-045 Auditory Outcomes of Cochlear Implantation in Chronic Otitis Media Compared to Standard Implantation

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Objectives : To compare auditory outcomes after cochlear implantation (CI) between patients with chronic otitis media (COM) and noninflammatory sensorineural hearing loss (SNHL), and assess effects of labyrinthitis and deafness duration. Methods : We retrospectively analyzed 33 postlingual COM patients and 70 age- and sex-matched SNHL controls. Audiologic data before and after surgery were reviewed, and preoperative CT/MRI assessed for labyrinthitis. Surgical stage (single or two-stage) of COM was recorded. Results : Postoperative aided thresholds and word recognition scores (WRS) were comparable between groups. Scale-out bone conduction thresholds were more frequent in SNHL ($P = 0.003$). Labyrinthitis was identified in 3 COM patients (9%) and linked to poorer WRS ($P = 0.007$ vs SNHL; $P = 0.025$ vs COM without labyrinthitis). Unlike SNHL, COM patients maintained stable WRS despite long-term deafness (>20 years). Conclusion : CI in COM yields auditory outcomes similar to SNHL. Without labyrinthitis, COM patients preserved speech performance after long-standing deafness, implying maintained cochlear integrity. Preoperative imaging helps detect labyrinthitis, a predictor of worse outcomes.

IS-046 Quality of Life Evaluation of Family Members Supporting Cochlear Implant Recipients

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Objective : Although postoperative quality of life (QOL) assessments by cochlear implant (CI) recipients have been reported, evaluations of family members' QOL are limited. This study assessed changes in family QOL after CI surgery. Methods : Family members of adult postlingually deafened CI recipients aged 65 years or older at surgery were recruited at Sapporo Medical University Hospital. Caregiver burden, health-related QOL, and family perceptions of hearing-related difficulties were evaluated using J-ZBI-8, SF-8, and NHHHI. Family members retrospectively assessed pre- and postoperative conditions. Results : Among 47 recipients, many attended hospital visits without accompaniment, while partners were the most common accompanying family members. SF-8 scores showed no significant change, whereas caregiver burden and NHHHI scores improved after surgery. Conclusion : Although health-related QOL did not change, caregiver burden and family-perceived hearing-related difficulties improved after CI surgery, suggesting benefits of cochlear implantation for both recipients and their families.

IS-047 Adult Cochlear Implantation Cases with ≥50% Preoperative Maximum Word Recognition Score

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In our department, we conduct monosyllabic speech audiometry under optimal hearing aid fitting conditions when we decide cochlear implant (CI) candidacy. We encountered patients with a maximum word recognition score (WRS) of ≥50 %, but with a WRS of <50% at speech levels. These cases fell at the borderline or outside of the current CI candidacy criteria; however, some patients proceeded with CI surgery after thorough discussion and informed decision-making.

This study evaluated postoperative outcomes in adult CI recipients who demonstrated aided WRS <50% on average at conversational levels (60, 70 dB) using the 67-S monosyllabic word list, despite having a maximum WRS ≥50% before operation. Fifteen implanted ears with complete audiological records between October 2012 and April 2025 were retrospectively analyzed. The average WRS at conversational levels significantly improved from 41% preoperatively to 78% postoperatively ($p<0.05$). This finding suggests that CI recipients can achieve substantial improvements in speech perception even when their overall maximum WRS ≥50%.

IS-048 Optimizing Cochlear Implant Position for Magnetic Resonance Imaging of Vestibular Schwannoma

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Objectives: This study aimed to determine the optimal placement of the cochlear implant (CI) magnet to ensure the visibility of the inner ear and internal auditory canal (IAC) on postoperative magnetic resonance imaging (MRI) scans in patients treated for vestibular schwannoma (VS).

Methods: Nine patients who underwent CI either simultaneously with VS resection or sequentially after gamma knife surgery between January 2021 and June 2024 were retrospectively reviewed. Three patients had the CI placed in the conventional position, while six had it positioned farther from the external auditory canal (EAC) at a more vertical angle (alternative positioning). Postoperative temporal MRI scans were analyzed for inner ear and IAC visibility. Postoperative brain computed tomography (CT) scans underwent three-dimensional reconstruction to measure the distances from the CI magnet to the EAC and IAC, and the nasion-EAC-magnet angle.

Results: Among the six patients in the alternative positioning group, five showed unobstructed IAC visibility, with both magnet-to-EAC and magnet-to-IAC distances exceeding 90mm. The remaining patient in this group, whose distances were below 90mm, showed obscured IAC structures due to artifacts. All three patients in the conventional positioning group had distances less than 90mm and exhibited obscured IAC visibility. A strong correlation was observed between the magnet-to-EAC and magnet-to-IAC distances.

Conclusion: Optimal positioning of the CI magnet, particularly maintaining a distance greater than 90mm from the EAC, is crucial for achieving clear postoperative MRI visualization of the IAC in patients undergoing VS treatment.

IS-049 Bilateral Cochlear Implantation for Profound Sensorineural Hearing Loss in Chronic Myeloid Leukemia

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Chronic myelogenous leukemia (CML) is a disease characterized by increased blood cell production caused by formation of the oncogenic BCR-ABL fusion gene. About 20% of leukemia patients have ear symptoms such as hearing loss, tinnitus, or vertigo, but ear symptoms are uncommon in CML. We report a case of simultaneous bilateral cochlear implantation with a scala vestibuli approach for severe sensorineural hearing loss associated with CML. The patient was a 45-year-old man who had visited another hospital for vertigo and hearing loss and was diagnosed with CML. After CML achieved remission, he was referred to our department. Hearing in both ears was scale out, and CT and MRI suggested fibrosis in the scala tympani. Two years after the onset of hearing loss, we performed bilateral cochlear implantation (CI612). Through opening into the scala vestibuli, all electrodes were inserted without resistance, and postoperative cochlear implant use resulted in good outcome.There have been two previous reports of good outcomes after cochlear implantation for hearing loss associated with CML. Careful preoperative diagnosis and consideration of cochlear implantation are necessary.

IS-050 Cochlear Implantation in *MYH9*-Related Disease with Post-Transplant Immunosuppression : Case Report

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Introduction

MYH9-related disease (*MYH9*-RD) is an autosomal dominant disorder with macrothrombocytopenia, sensorineural hearing loss, and renal dysfunction. Cochlear implantation (CI) under long-term immunosuppression remains challenging.

Case report

A 34-year-old man with *MYH9*-RD has had progressive hearing loss since childhood. He had living-donor kidney transplantation at age 20. Since then, he has been on continuous immunosuppressive therapy. At age 26, he had surgery plus adjuvant chemotherapy for adrenocortical carcinoma. Genetic testing identified a heterozygous *MYH9* mutation (c.2104 C>T, p.A702C). Preoperative platelet count was 11,000/μL; perioperative platelet transfusions and steroid support were provided. Right CI via a round window approach was performed after platelet count increased to 49,000/μL. Full electrode insertion was achieved without intraoperative complications. Postoperative hemorrhage resolved conservatively. At 10 months, aided thresholds averaged 20-25 dB, with 96% word recognition and 100% sentence recognition.

Conclusions

CI was safe and effective for patients with *MYH9*-RD and complex comorbidities when meticulous perioperative management was applied.

IS-051 Magnet Extrusion in Cochlear Implants Due to Silicone Housing Fracture : A Successful Salvage

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Magnet extrusion is a rare but serious complication of cochlear implantation. Repeated magnet manipulation for magnetic resonance imaging can cause mechanical and soft-tissue failure. We report a case of 23-year-old male who underwent left cochlear implantation in 2008 for congenital bilateral profound sensorineural hearing loss. He also has underlying Arnold-Chiari malformations, syringomyelia and neuromuscular scoliosis. Following the need for magnetic resonance imaging of the spine to reassess his syringomyelia condition, the magnet was removed and reinserted back in 2017. In late 2024, he presented with magnet extrusion with no sign of infection. Intraoperative findings showed fractured silicone magnet housing, which caused the magnet migration. The magnet was displaced and located just at the subcutaneous area while the implant is still in the original operated area. The extruded magnet was removed and replaced, and a temporalis myofascial flap was used for reinforcement. Postoperative recovery was uneventful, and device function was fully restored. Early surgical intervention with vascularised tissue coverage allows device salvage and prevents further complications.

IS-052 Effect of Round Window Opening Size on Residual Hearing Preservation in Cochlear Implantation

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We aim to compare the hearing preservation outcomes in cochlear implant surgery following slit versus full opening of the round window membrane. 70 patients (mean, 26.3 years; range, 2-69 years) who underwent cochlear implantation via the round window approach were included in the study. 35 subjects were prospectively enrolled for cochlear implantation via the open round window technique between August 2018 and January 2019. 35 patients who underwent cochlear implantation from January 2017 to July 2018 via the slit round window opening, frequency matched by sex and age, were retrospectively enrolled. Pre- and postoperative thresholds were obtained. The percentage of hearing preservation was computed with the HEARRING Network formula and classified into complete, partial, and minimal hearing preservation. The results between the groups were compared and analyzed at 6 months postoperatively. The rate of complete hearing preservation in the open group was statistically significant (P=.030) at 71.4% (n=25) as compared with 45.7% (n=16) in the slit group. The widely opened round window may be an optional technique that surgeons can utilize to improve hearing preservation outcomes.

IS-053 Cochlear Implantation via Extended Endaural Incision in a Patient with Congenital Ear Malformation

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In our previous report, we described a surgical technique for cochlear implantation in canal wall down (CWD) ears. Specifically, this involved extending the endaural incision superiorly, harvesting a large temporal fascia flap, completely removing the tympanic epithelium, inserting the electrode array, obliterating the middle ear cavity with the temporal fascia flap, and sealing the external auditory canal with a tragal cartilage plug. This report details the safe application of this technique in a patient with severe ear malformation and suspected CHARGE syndrome. The patient was a 28-year-old female with malformations of the ear, as well as patent ductus arteriosus, amblyopia, and mild intellectual disability. The CT revealed significant inferior displacement of the emissary vein, precluding standard electrode insertion via the posterior tympanotomy approach to the round window. We therefore applied our previously reported technique to this malformed ear without prior surgical history. The cochlear implantation technique for CWD ears was safely adapted to this patient. This approach represents a viable surgical option for cases with severe malformations such as CHARGE syndrome.

IS-054 Revision Cochlear Implantation in an Elderly Patient with Electrode Extrusion

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Revision cochlear implantation can be technically challenging when intracochlear obstruction is present. We report a case in which reinsertion of the electrode was difficult and required an alternative surgical approach.

An 83-year-old woman with progressive sensorineural hearing loss underwent left cochlear implantation at the age of 73. Due to poor mastoid pneumatization and tympanic membrane adhesion, the electrode was inserted via a transcanal approach. During postoperative follow-up, persistent cerumen accumulation on the tympanic membrane led to gradual electrode exposure. At the age of 83, the electrode was dislodged during cerumen removal, and revision cochlear implantation was performed.

After electrode removal, reinsertion into the cochlea was not possible because of intracochlear granulation tissue. Enlargement of the original cochleostomy was unsuccessful, and therefore a cochleostomy was created in the scala vestibuli, allowing electrode insertion. Tympanoplasty using thinly sliced cartilage and posterior canal wall reconstruction were performed. Scala vestibuli insertion may be a useful option in revision cochlear implantation when standard reinsertion is not feasible.

IS-055 Patient-Reported Outcomes and Speech Perception One Year After Cochlear Implantation in Adults with Single-Sided Deafness and Asymmetric Hearing Loss : A Large Single-Center Cohort

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Background :
Cochlear implantation (CI) is increasingly used in adults with single-sided deafness (SSD) and asymmetric hearing loss (AHL), but comparative single-center outcome data remain limited. We evaluated 1-year changes in patient-reported auditory benefit, tinnitus burden, device use, and objective speech perception after CI.
Methods
We retrospectively reviewed 124 adults (SSD n = 88, AHL n = 36) who underwent CI at Samsung Medical Center (2019-2024). Outcomes included CI-aided thresholds, daily device usage, Tinnitus Handicap Inventory (THI), Hearing Handicap Inventory for the Elderly (HHIE), and Speech, Spatial and Qualities of Hearing Scale (SSQ). Group comparisons and pre-post analyses were performed. A subgroup (SSD n = 50, AHL n = 15) underwent CI-ear-isolated speech testing via Bluetooth-assisted direct streaming.
Results
At baseline, SSD patients were younger (SSD 51. 7 ± 13. 2 vs AHL 58. 3 ± 13. 5 years ; p = 0. 003) and had shorter deafness duration (SSD 4. 5 ± 6. 3 vs AHL 15. 0 ± 15. 3 years ; p < 0. 001). SSD patients had worse baseline auditory handicap with lower SSQ speech scores (47. 4 ± 21. 7 vs 76. 7 ± 26. 6 ; p < 0. 001), higher HHIE (66. 3 ± 26. 8 vs 47. 3 ± 23. 4 ; p < 0. 001), and higher THI (44. 3 ± 25. 0 vs 30. 0 ± 30. 3 ; p = 0. 042). Baseline CNC scores were comparable. At 1 year, both groups improved in SSQ domains and HHIE, with no between-group differences in change (all p > 0. 40). THI improvement was greater in SSD than AHL (20. 7 ± 23. 3 vs 2. 2 ± 30. 7 ; p = 0. 008). Daily device use was similar (10. 6 ± 3. 8 vs 10. 7 ± 4. 2 h/day ; p = 0. 68). CI-ear-isolated speech perception favored SSD for monosyllabic (52. 4 ± 19. 1% vs 35. 4 ± 23. 0% ; p = 0. 014), bisyllabic (83. 6 ± 15. 1% vs 65. 7 ± 28. 3% ; p = 0. 011), and sentence recognition (94. 5 ± 14. 0% vs 81. 1 ± 26. 8 % ; p = 0. 005).
Conclusion
CI provided comparable patient-perceived benefit and device acceptance in SSD and AHL despite differing baseline characteristics. CI-ear-isolated speech outcomes indicate distinct auditory performance profiles, supporting tailored counseling in asymmetric hearing loss.

IS-056 Management of Locally Advanced Oral Cancer - Evidence generation at Tata Memorial Centre, India

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Tata Memorial Centre continues to define global standards for managing locally advanced oral cavity cancer (LAOCC) in resource-constrained settings. Our work emphasizes cost-effective, high-impact interventions ranging from systemic therapies to molecular diagnostics. Low-cost, smartphone-attached intraoral imaging probes are being tested in remote areas to facilitate early diagnosis through telemedicine. One of our studies established that elective neck dissection (END) is superior to therapeutic dissection in node-negative early oral cancer. A 2024 update showed that while adding ultrasound to follow-up physical exams detects relapses earlier, it does not significantly improve overall survival. A landmark Phase III trial established that adding nivolumab at just 6% of the standard dose (20 mg every three weeks) to metronomic chemotherapy significantly improved 1-year overall survival from 16. 3% to 43. 4%. TMH research has validated the use of Induction Chemotherapy to downstage "technically unresectable" cases. A 2024-2025 update of a Phase III RCT showed that a 3-drug regimen (docetaxel-platinum-5FU) offers superior 5-year and 10-year overall survival compared to 2-drug regimens for borderline resectable tumors. Patients achieving resectability through NACT have a 5-year OS of 50. 7%, compared to only 5% for those who do not undergo surgery. To address the lack of intraoperative frozen sections in many Indian centers, TMH research demonstrated that a 7 mm specimen-driven margin achieved R0 (clear) margins in over 90% of cases. Researchers identified a protein, MMP10, and a microRNA, miR-944, as critical markers for tongue cancer metastasis. High MMP10 levels correlate with increased migration and dissemination of cancer cells. TMH is actively running clinical trials to monitor Circulating Tumor Cells (CTCs) in head and neck cancer patients to detect early recurrence via simple blood tests. A 2024-2025 study found that treating advanced-stage oral cancer is 42% more expensive than early-stage treatment.

IS-057 A Hidden Consequence : Osteoradionecrosis of the Hyoid Bone in Post-Radiation Surveillance

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Osteoradionecrosis (ORN) is a well-recognized late complication of radiation therapy to the head and neck region. While mandibular ORN has been extensively studied and documented, osteoradionecrosis of the hyoid bone represents a relatively rare but serious complication that has received limited attention in the literature. We present a case of a 51-year-old Indian male with a history of smoking and alcohol use disorder who developed osteoradionecrosis of the hyoid bone following definitive radiotherapy (RT) for stage IVA base of tongue squamous cell carcinoma. This case highlights the development of osteoradionecrosis of the hyoid bone as a late complication following definitive radiotherapy for oropharyngeal squamous cell carcinoma, emphasizing the importance of long-term surveillance and early recognition of post-radiation complications.

IS-058 Withdrawn

IS-059 NIR-PIT Triggers Rapid Immune Activation and Costimulatory Signaling in ICI-Naive HNSCC

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Background : Near-infrared photoimmunotherapy (NIR-PIT) is an emerging treatment for HNSCC, but the immediate immune responses in human tumors remain unclear. Methods : Paired tumor samples were analyzed before and one hour after NIR-PIT. $CD8^+$ T cell infiltration was assessed by immunohistochemistry. Flow cytometry was used to evaluate $CD8^+$ T cell activation (CD69), differentiation status (CD45RA/CCR7), and the expression levels of CD80 and CD86 in $HLA\text{-}DR^+$ $CD3^-$ cells. Results : Baseline $CD8^+$ T cell infiltration was higher in immune checkpoint inhibitor (ICI)-pretreated tumors than in ICI-naive tumors. Although post-treatment $CD8^+$ T cell counts were similar between groups, the fold-increase from baseline was significantly higher in ICI-naive tumors. In ICI-naive tumors, NIR-PIT rapidly induced $CD8^+$ T cell activation and effector memory differentiation within one hour. CD86 expression increased in $HLA\text{-}DR^+$ $CD3^-$ cells. These changes were not observed in ICI-pretreated tumors. Conclusion : NIR-PIT acts not only as a tumor-debulking treatment but also as a rapid immune-modulating therapy. These findings support the potential role of NIR-PIT as an immune-priming strategy prior to ICI therapy.

IS-060 Exploratory study of peripheral inflammatory markers in recurrent HNSCC treated with NIR-PIT and ICI

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Purpose : This exploratory retrospective study examined potential predictivebiomarkers of sequential near-infrared photoimmunotherapy (NIR-PIT) and immune checkpoint inhibitor (ICI) therapy in non-surgical candidates with recurrent head and neck squamous cell carcinoma (HNSCC). Methods : From January 2022 to May 2025, 11 patients with recurrent HNSCC underwent NIR-PIT, including9 who received sequential ICI. Associations between peripheral blood biomarkers and oncological outcomes were evaluated. Results : Thirteen target lesions were treated. The overall response rate was 84. 6%, with five complete and six partial responses. Higher relative eosinophil increase (REI) tended to be observed in better responders, whereas higher absolute monocyte counts (AMC) were associated with disease progression. Conclusion : Sequential NIR-PIT and ICI therapy demonstrated favorable efficacy and safety in non-surgical candidates with recurrent HNSCC. REI and AMC may represent potential biomarkers of treatment response and progression.

IS-061 Surgical Experience and Oncologic Outcomes of Transoral Robotic Surgery for Oropharyngeal Cancer

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Background : The clinical landscape of oropharyngeal squamous cell carcinoma (OPSCC) is defined by the distinction between HPV-positive and HPV-negative disease. Standard high-dose concurrent chemoradiotherapy (CRT) is associated with significant acute and late toxicities, including severe dysphagia and xerostomia. In contrast, HPV-negative OPSCC exhibits more aggressive behavior and a poorer prognosis, typically necessitating high-intensity multimodal therapy. This study reviews the role of transoral robotic surgery (TORS) as a primary modality for treatment de-escalation aimed at reducing treatment-related morbidity.

Materials and Methods : From May 2016 to April 2025, a total of 101 patients with head and neck cancer underwent transoral robotic surgery (TORS) at Chiayi Chang Gung Memorial Hospital. Among these patients, 33 underwent surgical treatment for oropharyngeal squamous cell carcinoma, while 68 were treated for non-oropharyngeal head and neck cancers.

Results : In early-stage disease, TORS was associated with improved overall survival (OS) and disease-free survival (DFS) compared with non-surgical treatment modalities. In p16-negative OPSCC, TORS demonstrated favorable survival outcomes compared with radiotherapy and may serve as a surgical de-escalation strategy in a highly selected subset of early-stage patients (pT1-T2, pN0), despite the generally high risk of recurrence in this population. In p16-positive OPSCC, TORS enabled risk-adapted adjuvant therapy, facilitating treatment de-escalation while maintaining oncologic control.

Conclusion : TORS represents an important modality in the contemporary management of OPSCC. It offers oncologic outcomes comparable to definitive concurrent chemoradiotherapy while reducing long-term treatment-related toxicity. Future treatment strategies should emphasize meticulous pathological risk stratification to optimize functional preservation in HPV-positive patients. Even patients with HPV-negative disease may, with the use of TORS, transition from high-dose definitive radiotherapy to postoperative adjuvant radiotherapy, thereby reducing radiation dose and improving quality of life.

IS-062 Christie Scheme in Advanced Head and Neck Cancers : Experience from a Tertiary Cancer Centre

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Aim of the present study is to assess the tolerability of hypo fractionated radiotherapy schedule in very advanced Head and Neck Cancers. 46 patients unsuitable for curative treatment, were treated with a hypo fractionated scheme of radiotherapy consisting of 50Gy/16# @3. 125 Gy/fraction (EQD2 = 54. 69Gy, equivalent dose in 2 Gy fractions), 5 days a week, with median age 48 years were analysed. Male were 35 and female were 11 patients. Among the sites, Buccal mucosa were most common 19 followed by Tongue 10. Most common technique used were Three-Dimensional Conformal Radiation Therapy 35 followed by Rapid arc Intensity Modulated Radiotherapy 7. Average duration of radiotherapy was 23 days. 43patients received full dose of 50Gy. Grade 2-3 dermatitis and mucositis were seen in 30%.At the end of treatment there is significant symptomatic improvement on subjective assessment. Christie scheme is an effective, well-tolerated and safe palliative schedule in HNSCC who are unsuitable for curative treatment options. Excellent palliation was achieved resulting in acceptable response rates, excellent symptom control, acceptable toxicity profile and this schedule is of short duration.

IS-063 Objective and subjective evaluation of Cochlear sparing in Highly conformal head & neck radiotherapy

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Background : Radiotherapy for head and neck cancers often results in the risk of sensorineural hearing loss. This study evaluates the effectiveness of cochlear-sparing volumetric-modulated arc therapy (CS-VMAT) and to reassess the cochlear dose constraint of <45 Gy. Methods : This prospective observational study, 58 ears receiving CS-VMAT were assessed. Objective evaluations PTA, DPOAE, tympanometry and subjective assessment (Hearing Handicap Inventory for Adults were conducted at baseline and 3 months post-therapy. Results : CS-VMAT achieved mean cochlear doses <25 Gy in 51.7% of cases without compromising target volume coverage. At 3 months post-treatment, PTA revealed hearing deterioration in 18 ears (31%), with statistically significant worsening in those receiving >25 Gy mean cochlear dose ($p<0.01$). DPOAE and tympanometry showed trends toward cochlear dysfunction and middle ear changes but were not statistically significant. HHIA score indicated a decline in quality of life in 31% of patients ($p<0.01$), all reported from those who received >25 Gy. Conclusion : This study demonstrates that cochlear doses >25 Gy are associated with early hearing loss with reduced quality of life.

IS-064 Clinical Outcomes of Double Free-Flap Reconstruction in Head and Neck Cancer : A Six-Year Experience.

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Objective : Simultaneous double free-flap reconstruction has become a robust option for extensive composite defects after ablative surgery for advanced head and neck cancer. This study examined long-term survival and patient-reported functional outcomes. Methods : Retrospective review of consecutive patients undergoing double free-flap reconstruction for large defects post-resection of locally advanced head and neck malignancies (2019-2025). Data included demographics, operative details, complications, and survival. Speech and swallowing were evaluated six months postoperatively using the Functional Oral Intake Scale (FOIS) and Intelligibility Rating Scale (IRS). Results : Thirty patients underwent 60 free flaps, most frequently fibula plus anterolateral thigh (27 cases). Flap survival was 100%. Two-year overall survival reached 58.6 %. At median 24-month follow-up, most patients expressed satisfaction with aesthetic and functional outcomes at donor and recipient sites. Conclusions : Double free-flap reconstruction is safe, yielding acceptable survival and favourable patient-reported outcomes in complex head and neck defects.

IS-065 CD25-targeted Near Infrared Photoimmunotherapy and intratumor IL-15 enhance PD-1 blockade.

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Immune checkpoint therapies like anti-PD-1 antibodies are widely used but help only a subset of patients. Near-infrared photoimmunotherapy (NIR-PIT) is a novel cancer treatment that selectively destroys targeted cells. CD25-targeted NIR-PIT can selectively deplete intratumoral regulatory T cells (Tregs), while IL-15 further activates $CD8^+$ T cells, improving the $CD8^+$/Tregs balance. we evaluated the combination of CD25-targeted NIR-PIT and intratumoral IL-15 administration with anti-PD-1 antibodies in treating syngeneic murine tumor models. The triple therapy suppressed tumor growth, increased the $CD8^+$/Tregs ratio, extended survival, and achieved up to 90% complete responses. Mice with complete responses resisted tumor re-challenge, indicating durable memory T-cell formation. These results suggest the combination could markedly enhance the efficacy of anti-PD-1 immunotherapy.

IS-066 Early Surgical Intervention for Traumatic Stapediovestibular Luxation : A Case Report

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Traumatic stapediovestibular luxation is rare, and its management remains controversial. A 49-year-old woman developed vertigo after accidental deep insertion of a cotton swab into the right ear. Otoscopic examination revealed a perforation of the tympanic membrane. Pure-tone audiometry demonstrated mixed hearing loss with paralytic nystagmus. Computed tomography of the temporal bone revealed depression of the footplate into the vestibule. The patient was diagnosed with stapediovestibular luxation and hospitalized for conservative management with steroids and bed rest. Although vertigo improved, spontaneous closure was considered unlikely due to marked depression. Surgery was therefore performed three days after injury. Intraoperative manipulation was safely achieved with minimal fibrosis. Postoperatively, vertigo resolved promptly. Follow-up CT confirmed restoration of the footplate, and audiometry demonstrated closure of the air-bone gap with partial recovery of low-frequency bone-conduction thresholds. Management should be individualized based on symptoms and imaging findings, and early surgical intervention is warranted when spontaneous closure is unlikely.

IS-067 Ossicular Chain Reconstruction vs Bone Conduction Implantation post tympanomastoid surgery.

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Aim : Aims to determine the factors that affect decision to offer a bone conduction implant vs ossicular chain reconstruction after canal wall down mastoidectomy. Methodology : A retrospective chart review of all patients who underwent bone conduction implantation at Sir Charles Gairdner Hospital and Osborne Park Hospital from year 2019 until 2023. Result : 28 patients were implanted in total ; 19 patients had history of modified radical mastoidectomy (MRM) for cholesteatoma. 70% of MRM patients had a second relook surgery and was subjected to ossicular chain reconstruction (OCR), 50% PORP, 20% TORP and 30% had cartilage tympanoplasty. Average air-bone closure achieved in cartilage tympanoplasty was 5dB and average air-bone closure achieved in TORP/PORP was 11. 42dB. Average time taken from ossicular chain reconstruction to extrusion of prosthesis was 1. 38 years. By the second year of OCR, all the prosthesis extruded and those patients subsequently proceeded to have a bone conduction implant. Conclusion : Bone conduction implantation should be considered in patients with canal wall down mastoidectomy.

IS-068 Endoscopic Tympanoplasty Using SIS Xenografts for Large Perforations : A One-Year Cohort Study

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Objective : To evaluate the anatomical and audiological outcomes of endoscopic tympanoplasty using porcine small intestinal submucosal (SIS) xenografts for large tympanic membrane perforations. Methods : This retrospective cohort study included 102 patients with TM perforations (>50%) who underwent transcanal endoscopic tympanoplasty. Patients received either SIS grafts (n = 52) or perichondrial grafts (n = 50) with ≥12 months of follow-up. Success was measured by graft uptake and pure-tone audiometry. Multiple linear regression analyzed associations between clinical variables and postoperative air-bone gap (ABG) gain. Results : Graft uptake rates were 88. 5% for SIS and 86% for perichondrium ($p > 0.05$). Both groups showed significant postoperative ABG improvement across all frequencies. In the SIS group, patients <65 years achieved significantly higher ABG gain than those ≥65 years (11. 8 vs. 5. 8 dB ; $p = 0.005$). Sex and comorbidities were not associated with outcomes. No major complications occurred. Conclusions : SIS xenografts are a reliable, effective alternative for large TM perforation repair, offering high uptake rates and satisfactory hearing improvement.

IS-069 Interlay Type I Tympanoplasty in Large Central Perforations : Analysis of 500 Cases

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Aims and Objectives : To study the outcomes of interlay tympanoplasty (Type I) in patients with large central perforations (inactive mucosal chronic otitis media [COM]) in terms of graft uptake and hearing improvement. Materials and Methods : The present study is an analysis of database of 500 patients of inactive mucosal COM with large central perforation, who had undergone Type I interlay tympanoplasty at Prathima institute of medical sciences Karimnagar, Telangana during the past 5 years. Results : The graft uptake rate in the present study was found to be 96. 6%, and 95. 4% of the patients reported an improvement in terms of hearing with the mean air–bone gap improving from 26. 08 to 10. 12 dB. Conclusion : Tympanoplasty done by interlay technique has excellent results both in terms of graft uptake and hearing improvement, with minimal complications

IS-070 Endoscopic Versus Microscopic Tympanoplasty : An Updated Systematic Review and Meta-Analysis

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Introduction : Endoscopic ear surgery (EES) is now a primary surgical standard. This meta-analysis evaluates the clinical efficacy and safety of EES versus microscopic tympanoplasty based on current high-level evidence. Methods : PubMed, Cochrane, Scopus, and ClinicalTrials. gov were searched for RCTs and observational studies. Primary endpoints included graft success and air–bone gap (ABG) improvement. Secondary outcomes were periprocedural complications and operative duration. Data synthesis utilized pooled odds ratios (OR) and mean differences (MD) with 95% confidence intervals. Results : Analysis of 34 studies (2, 684 patients) showed comparable success in graft uptake and hearing restoration. However, EES was associated with significantly lower incidences of wound infection, dysgeusia, otitis externa, and auricular numbness. Furthermore, EES significantly reduced surgical time compared to the postauricular microscopic technique. Conclusions : Endoscopic tympanoplasty is an effective, minimally invasive alternative to microscopic methods, providing equivalent success with significantly lower morbidity and shorter operative duration.

IS-071 Analysis of Risk Factors Affecting Hearing Outcomes in Patients with Tubotympanic Chronic Otitis Media After Type I Tympanoplasty

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Background : Type I tympanoplasty is a standard surgical procedure for tubotympanic chronic suppurative otitis media (CSOM) aimed at restoring tympanic membrane integrity and improving hearing. However, postoperative hearing outcomes may vary and be influenced by preoperative clinical factors.

Objective : To identify preoperative clinical characteristics associated with hearing outcomes after type I tympanoplasty.

Methods : This prospective cohort study included patients with tubotympanic CSOM who underwent type I tympanoplasty and achieved an intact postoperative tympanic membrane. Preoperative variables included perforation size, perforation location, and Eustachian tube function. Hearing outcomes were assessed using pure tone audiometry. Hearing improvement was defined as a postoperative air–bone gap (ABG) reduction of ≥10 dB in adjacent frequencies.

Results : Mean hearing thresholds improved from 44. 7 ± 15. 9 dB preoperatively to 33. 2 ± 14. 4 dB postoperatively. The mean ABG decreased from 41. 9 dB to 14. 4 dB. Hearing improvement was observed in 82. 3% of patients, while 17. 6% showed no improvement. No significant association was found between hearing outcomes and perforation size, perforation location, or preoperative Eustachian tube function.

Conclusion : Most patients experienced hearing improvement after type I tympanoplasty, although some showed no improvement, suggesting additional influencing factors.

Keywords : Air Bone Gap, Chronic Otitis Media, Hearing, Tympanoplasty

IS-072 GJB2 p.V37I Variant and ER Stress in Sudden Sensorineural Hearing Loss

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Objective : To examine whether the heterozygous GJB2 p.V37I variant increases susceptibility to sudden sensorineural hearing loss (SSNHL) and to explore its link to endoplasmic reticulum (ER) stress. Methods : A total of 145 SSNHL patients were screened for 25 variants in GJB2, SLC26A4, OTOF, and 12S rRNA using the SNaPshot® Multiplex Assay. The frequency of GJB2 p.V37I was compared with the Taiwan Biobank. Clinical correlations were analyzed, and functional assays were performed in HEI-OC1 cells expressing wild-type or p.V37I GJB2 under tunicamycin-induced stress. Results : The p.V37I variant was detected in 26.9% of SSNHL patients and was significantly enriched compared with the general Taiwanese population (OR 1.92 ; P<0.001). The variant was associated with more severe hearing loss and recurrence. Functionally, p.V37I-expressing cells exhibited increased GRP78 and CHOP expression, indicating heightened ER stress. Conclusion : Heterozygous GJB2 p.V37I is associated with susceptibility and recurrence of SSNHL, potentially through ER stress-related mechanisms, supporting genetic screening and further mechanistic research.

IS-073 Feasibility and surgical considerations for transcanal endoscopic gene therapy in young children

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Background : Reliable intracochlear delivery is essential for AAV-mediated OTOF gene therapy, yet anatomical feasibility in young children remains insufficiently defined. Methods : Seven patients (eight ears) underwent transcanal endoscopic intracochlear microinjection. Preoperative CT was used to assess external and middle ear anatomy and to correlate imaging findings with surgical feasibility. Results : Pediatric external auditory canals were narrower than those reported in older populations. A bony EAC length ≥4 mm permitted secure tympanomeatal flap elevation and scutum removal. Middle ear dimensions and round window niche deviation showed no age dependence, and endoscopic instrument angulation consistently allowed round window exposure without posterior canal wall drilling. No major complications were observed. Conclusion : Transcanal endoscopic intracochlear microinjection is feasible in young children when key anatomical thresholds are met, providing practical guidance for early endoscopic gene therapy delivery.

IS-074 Human iPSC-Derived Inner Ear Models for Drug Development and Prenatal Ototoxicity Assessment.

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Introduction : Human iPSC-derived organ modeling is critical for the inner ear, where species differences are significant and tissue biopsy is challenging. These in vitro human systems are vital for clinical application development for hearing loss.

Methods & Results : We established a protocol for generating human iPSC-derived inner ear organoids at Jikei University. This organoid model was used to evaluate therapeutic compounds against cisplatin-induced ototoxicity, demonstrating its utility in drug screening.

Moreover, at Stanford University's Stankovic lab, we employed human iPSC-derived inner ear progenitor cells to predict potential ototoxic effects of compounds administered during the embryonic stage. This progenitor model provides a crucial platform for assessing developmental risks related to congenital hearing loss.

Conclusion : The combined use of a human inner ear organoid model for acquired ototoxicity treatment and a progenitor model for prenatal ototoxicity assessment offers a powerful approach. These two distinct human cell-based systems provide essential validation for animal studies and hold significant promise for accelerating the development of novel therapies.

IS-075 Effects of aging on NESTIN Expression in the Organ of Corti after noise exposure

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In mammals, spontaneous regeneration of hair cells does not occur; therefore, recovery from sensorineural hearing loss is difficult. Recently, differentiation-based therapies using inner ear stem cells have been explored. However, age-related changes in inner ear stem cell potential and their response to noise exposure remain unclear. We investigated age-dependent changes in NESTIN expression, a neural stem cell marker, in the organ of Corti after noise exposure.

Nestin-EGFP mice at postnatal days (P) 30, 100, 200, and 300 were divided into noise-exposed and non-exposed groups. The noise-exposed group was subjected to white noise at 121 dB for 2 hours. Auditory brainstem responses were measured before and 3 days after noise exposure, and hearing thresholds at 8, 16, and 24 kHz were evaluated. Inner ear specimens were analyzed by immunohistochemistry. Hearing thresholds increased with age and after noise exposure in all groups. NESTIN expression was enhanced in inner phalangeal cells after noise exposure in P100 mice, but not in P300 mice. These findings suggest that inner ear stem cell responsiveness declines with aging.

IS-076 Brain Reorganization Following Hearing Loss: A Longitudinal DTI Study Using the Common Marmoset

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Since the association between hearing loss and dementia was reported in 2017, evidence suggesting that hearing intervention may prevent cognitive decline has been accumulating. Research focusing on the brain has also increased, with auditory cortex atrophy and cross-modal plasticity now widely recognized. However, questions regarding when and where brain changes occur, and their reversibility, remain unanswered, particularly due to a lack of longitudinal imaging data. In this study, we created bilateral hearing loss models in common marmosets of the same age and housing conditions, and followed them longitudinally from the acute phase through six months. DTI analysis was performed using 9.4T MRI, with brain regions classified into functional categories including visual, auditory, somatosensory, association, limbic, basal ganglia, and thalamus. We analyzed temporal changes in inter-regional connectivity. The results revealed distinct patterns of connectivity enhancement and reduction across categories, suggesting that brain reorganization following hearing loss involves multiple time courses.

IS-077 Multi-Omic GWAS Mouse Strains Identifies Genetic Determinants of Vestibular Function

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Disequilibrium is a prevalent age-related condition that increases fall risk, yet the genetic basis of vestibular function remains unclear. At last year's conference, we reported a preliminary genome-wide association study (GWAS) using the Hybrid Mouse Diversity Panel (HMDP) that identified suggestive loci without genome-wide significance. Here, we extend this work by analyzing expanded phenotypic datasets and integrating multi-layer transcriptomic data. We performed GWAS of vestibular-evoked potential (VsEP) thresholds and raised-beam performance in young female HMDP strains and additionally analyzed aged strains of both sexes. We identified genome-wide significant SNPs in both young and aged cohorts. Integration of cochlear and cerebellar cis-expression quantitative trait locus (cis-eQTL) data from BXD strains with human cochlear transcriptomes prioritized 12 cochlea-enriched candidate genes within linkage disequilibrium blocks. Single-cell RNA sequencing localized candidate genes to vestibular hair cells and inner-ear melanocytes. This integrative framework provides new insight into the genetic architecture of vestibular function and age-related balance impairment.

IS-078 Effect of automated chair maneuver on BPPV: A Randomized Clinical Trial

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Objective: To compare automated canalith repositioning maneuvers (Automated-CRM) with manual CRM in benign paroxysmal positional vertigo (BPPV). Methods: In this prospective multicenter randomized trial, 404 unilateral BPPV patients from three tertiary hospitals in China were assigned 1: 1 to Automated-CRM (n=201) or Manual-CRM (n=203). Participants and examiners were unblinded; outcome assessors and statisticians were masked. The primary end point was response (cured or improved) at week 1. Secondary end points were immediate and weekly response and cure rates through week 4 and safety. Results: At week 1, response was higher with Automated-CRM than Manual-CRM (97.51% vs 86.70%, P<0.001); sustained response through week 2 also favored Automated-CRM (98.51% vs 93.60%). Generalized estimating equations showed higher odds for response (OR 6.13, 95% CI 3.16-11.82) and cure (OR 1.44, 95% CI 1.06-1.95) with Automated-CRM. Adverse events were similar (39 events in 31 vs 32 in 28 participants). Conclusions: Automated-CRM yields faster and more durable symptom relief than Manual-CRM without increasing adverse events and may be considered first-line therapy for BPPV.

IS-079 Development of the SMART-BPPV learning module: an ADDIE based content and face validation study

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Introduction: Diagnostic and therapeutic errors remain common in benign paroxysmal positional vertigo (BPPV) due to difficulties in nystagmus interpretation and canalith-repositioning maneuvers. Conventional instructional approaches are often inadequate underscoring the need for validated, multimedia-based educational tools. Methods: The SMART-BPPV learning module addressed five core domains of BPPV management through concise instructional videos, annotated visualizations, and clinical algorithms. Content validity was evaluated by seven multidisciplinary vestibular experts while face validation was conducted among 30 medical officers from otorhinolaryngology, emergency medicine, and primary care. Results: Content validity was excellent (S-CVI/Ave=0.987). Although Fleiss'κ was low due to prevalence effects, agreement beyond chance was near-perfect (Gwet's AC1=0.976). Face validation demonstrated excellent clarity and relevance (overall S-FVI/Ave=0.999). Conclusion: SMART-BPPV is a rigorously validated, theory-driven multimedia module with strong potential to enhance vestibular education and clinical competence.

IS-080 vHIT for Semicircular Canal Function Assessment in Vestibular Schwannoma under Wait-and-Scan

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Background: Vestibular schwannoma (VS) is a benign tumor from the vestibular nerves, and a wait-and-scan strategy is adopted for small tumors without significant hearing loss. While longitudinal changes in hearing level or tumor size are reported, changes in vestibular function have been scarcely studied using the video Head Impulse Test (vHIT). Methods: Twenty-five VS patients managed under wait-and-scan were enrolled. VOR gain in horizontal (HSC), posterior (PSC), and anterior (ASC) semicircular canals, pure-tone average (PTA), tumor area on MRI, and DHI scores were compared between baseline and 1 year. Results: VOR gain significantly decreased in affected HSC and PSC (p=0.040, p=0.007). ASC showed a nonsignificant trend (p=0.068). Tumor area on MRI increased (p=0.002), and PTA worsened (p=0.0035). No correlation was observed between VOR changes and tumor growth. DHI showed no significant change (p=0.52). Conclusion: In VS patients under wait-and-scan, VOR gain decline occurred over 1 year, while subjective dizziness did not worsen. Tumor enlargement was not clearly linked to VOR changes. vHIT-based assessment may be useful for monitoring functional changes.

IS-081 100 Hz sound stimulation as a potential new treatment for vestibular balance disorders

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We investigated the efficacy of 100 Hz sound stimulation for treating disequilibrium in patients with vestibular balance disorders. Patients with suspected vestibular dysfunction were consecutively recruited and randomly assigned to two groups : experimental and control groups, receiving a single session of sound stimulation of 75 dB and 40 dB, respectively, at a frequency of 100 Hz for 10 min. Cervical vestibular-evoked myogenic potential (cVEMP) and posturography values were measured before and after each sound stimulation. In the experimental group, significant increases in cVEMP amplitudes were observed after the 75 dB stimulation in both the affected and the unaffected ears, and dynamic posturography revealed significant stabilization during a 10-meter walk. No such changes were observed after the 40 dB stimulation in the control group. Sound stimulation of 75 dB at a frequency of 100 Hz led to partial improvement of disequilibrium in patients with vestibular balance disorders. Adequate 100 Hz sound stimulation might be a new method for treating patients with vestibular balance disorders, especially those with dysfunction of their otolith organs.

IS-082 Correlation between Subjective Visual Vertical and VEMP in Geriatric Subjects

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Introduction : Subjective Visual Vertical (SVV) and Vestibular Evoked Myogenic Potential (VEMP) are examinations used to assess otolith organ function and are suitable for elderly patients as they are performed in a sitting position. This study aimed to determine the correlation between SVV values obtained using the bucket method and VEMP findings. Methods : A cross-sectional study was conducted on 41 geriatric subjects without balance disorder complaints. All subjects underwent SVV examination and VEMP testing with tone-burst stimuli at intensities of 95 dB and 100 dB. Results : The median SVV value was 1.8°(0.8°-3.8°). The mean n1 and p1 latencies of oVEMP were 11.7±2.6 ms and 16.5±3.8 ms. The mean p1 and n1 latencies of cVEMP were 16.4±3.9 ms and 25.0±4.2 ms. A significant correlation was found between SVV values and cVEMP asymmetry at 95 dB (r=0.310 ; p=0.049) and 100 dB (r=0.586 ; p=0.001). No significant correlation was observed between SVV values and oVEMP parameters. Conclusion : SVV values measured using the bucket method correlated with cVEMP findings in geriatric subjects without balance disorder. Keywords : SVV, VEMP, geriatric, vestibular

IS-083 THE ASSOCIATION BETWEEN VESTIBULAR, HEARING AND COGNITIVE ABILITIES AMONG OLDER POPULATION

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Objective : We studied the association between vestibular, hearing and cognitive abilities among older population.
Study Design : Cross-sectional study.
Setting : Tertiary academic medical center.
Patients : Hundred twenty-two subjects aged 60 years and above with vestibular symptoms and with or without hearing loss recruited.
Intervention : All subjects underwent modified Clinical test of Sensory Interaction in Balance (mCTSIB) and video Head Impulse Test (vHIT), Pure Tone Audiometry (PTA) test and Montreal Cognitive Assessment (MoCA) Malay version.
Main Outcome Measure : mCTSIB in seconds, vHIT either normal or abnormal, average hearing threshold in decibels hearing level (dB HL) and MoCA scores.
Results : The mean age of the subjects was 68.44±6.17 years. The majority were female (62.3%). The association between MoCA and the education level revealed to be significant (*p value<0.05 ; 95% confidence interval*). The association between hearing threshold and vHIT, was not statistically significant. However, it was significant between hearing threshold and mCTSIB ($p<0.05$; 95% confidence interval ; 50-120 seconds). A significant and positive (0.259) interaction effect between MoCA and hearing threshold was found (*$p=0.004$; 95% confidence interval ; 30-72 dB HL*). We discovered the association with mCTSIB comparatively similar, which was significant ($p=0.049$).
Conclusions : Cognitive function, hearing and vestibular abilities are interrelated among older population. Deterioration of hearing and balance can be found in older population with mild cognitive impairment.

IS-084 Endoscopic intranasal optic nerve decompression

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Indirect optic nerve injury as traumatic loss of vision may occur without external or internal evidence of injury the eye or its nerve. The optic nerve is injured in 0.5% to 1.5% of cases of closed head injury and often involve the optic canal. Common injuries resulting in traumatic optic neuropathy (TON) include a blow to the ipsilateral brow or forehead, most often as a result of a motor vehicle or bicycle accident, fall, or assault. Advances in endoscopic instrumentation and surgical techniques have made endoscopic optic nerve decompression via an intranasal transethmoidal-transsphenoidala preferred approach over other extracranial or craniotomy approaches. After the endoscopic intranasal optic nerve decompression made a direct and easy approach possible, it became more popular and optic nerve pathologies attracted more interest among ENT surgeons. Surgical decompression may be performed for numerous lesions that compress the optic nerve in the optic canal leading to problems with vision. However, it is most often most controversially employed for decompression in indirect traumatic injuries to the optic nerve. The role of surgical decompression is not clear, with a lack of controlled studies in the literature. The problem to resolve the issues was slow enrollment. Our experience showed that EOND is beneficial in selected traumatic caes and in certain pathologies. The decisions regarding the patients who should be operated and the type of intervention to use should be made after considering all patient-specific factors while weighing risk versus potential benefit.

IS-085 Symptom Improvement After Endoscopic Sinus Surgery with Different Phenotypes of Sinusitis

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Background : This study investigates symptom improvement after endoscopic sinus surgery (ESS) across various chronic rhinosinusitis (CRS)phenotypes. Methods : Patients were classified into five phenotypes : (1) CRSwNP-eCRS, (2) CRSwNP-non-eCRS, (3) Isolated sinusitis, (4) Central compartment atopic disease (CCAD), and (5) Allergic fungal rhinosinusitis (AFRS). Sinonasal Outcome Test-22(SNOT-22) scores were collected preoperatively and at 1 month, and 3 months postoperatively. Results : A total of 523 patients were included : 198 CRSwNP-eCRS (37.86%), 134 CRSwNP-non-eCRS (25.62%), 88 isolated sinusitis (16.83%), 75 CCAD (14.34%), and 28 AFRS (5.35%). Postoperative improvement (ΔSNOT-22) showed varying degrees of symptom reduction among phenotypes : At 3 months : CRSwNP-eCRS (−19.57), CRSwNP-non-eCRS (−6.86), isolated sinusitis (−6.74), CCAD (−3.22), AFRS (−5.50). Conclusion : FESS resulted in significant symptom and quality-of-life improvement. The CRSwNP-eCRS, isolated sinusitis, and AFRS demonstrated the most substantial postoperative improvement.

IS-086 Effect and Threshold of Endoscopic Findings for CRSControl Status and Long-Term Outcome Prediction

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Background : EPOS 2020 defines chronic rhinosinusitis (CRS) control based on symptoms and medication use, with endoscopic findings considered optional. Their value in predicting current and future control remains uncertain. Methods : We prospectively studied 188 adult CRS patients undergoing bilateral endoscopic sinus surgery (2017-2023). Assessments at 6-12 months (V1) and 18-60 months (V2) included SNOT-22 symptoms, medication use, and modified Lund-Kennedy (MLK) endoscopic scores. CRS control was defined using EPOS 2020 criteria without endoscopy. Results : Endoscopic findings were weakly associated with concurrent control. Total MLK performed better than individual components (V1 AUC = 0.631 ; V2 AUC = 0.620). Adding MLK ≥ 3 at V1 modestly improved prediction of V2 control compared with EPOS criteria alone (AUC = 0.744 vs. 0.721). Conclusion : Endoscopic findings add limited value for concurrent assessment but improve prediction of future CRS control. An MLK threshold ≥ 3 provides moderate prognostic utility.

IS-087 PHENOTYPING FOR PREDICTION OF LIFE QUALITY IN CHRONIC RHINOSINUSITIS PATIENTS

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Phenotyping involves the systematic observation of physical and behavioural traits, while simultaneously capturing the influence of disease pathophysiology. In chronic rhinosinusitis (CRS), we find variations in patient's quality of life in same disease states, and conventional endoscopic severity scores such as LK and DIP correlate poorly with quality of life. In this prospective, randomised study of 209 participants, we have assessed phenotypes of a person using a validated AyuSoft tool and quality-of-life measurement via the SNOT-22 scores. Advanced dimensionality reduction techniques, including PCA, multidimensional scaling, and t-SNE, revealed that a cluster of phenotypic traits were dominant determinants of quality of life, while endoscopic scores contributed minimally to variance. Logistic regression identified eight predictors- lean habitus, dry skin, brittle teeth, rough nails, altered gait, and rushed speech strongly associated with high symptom burden. These were integrated into a nomogram that achieved robust discrimination (AUC≈79%), enabling individualised risk estimation for QoL using a clinically interpretable tool and advancing precision medicine in CRS.

IS-088 Prevention of frontal sinus ostium stenosis after extended sinus surgery for severe eCRS

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Objectives:

Endoscopic modified Lothrop (EMLP) frontal sinus surgery for refractory frontal sinus diseases such as eosinophilic chronic rhinosinusitis (eCRS) has come to be widely performed. However, postoperative frontal sinus ostium stenosis may occur. Various flap techniques to prevent stenosis are reported but they are complicated. We present a simple technique to preserve frontal sinus ostium patency using silicon plate with cyanoacrylate glue as a non-biomedical adhesive.

Methods:

This study included 24 eCRS cases with asthma. EMLP was performed on all cases. Wedge-shaped silicon plate with slits inserted into frontal sinus ostium was adhered to the exposed bone surface using cyanoacrylate glue. Free mucosal flap was also used in 15 of 24 cases. Nasal packing was used to support the plate. The silicon plate was taken off 3 to 4 weeks postoperatively. All cases were followed up over 1 year.

Results:

22 cases showed wide enough frontal sinus ostium after surgery. 2 cases showed stenosis due to early displacement of the silicon plate.

Conclusion:

Our simple technique using silicon plate with cyanoacrylate glue showed usefulness for preserving frontal sinus ostium patency after EMLP.

IS-089 Staphylococcal Enterotoxin B Sensitization marks a Distinct Type 2 Subtype of Chronic Rhinosinusitis

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Introduction: Type 2 inflammation in chronic rhinosinusitis (CRS) correlates with severity. While Staphylococcus aureus enterotoxin B (SEB) sensitization is linked to poor outcomes, its specific role in CRS pathophysiology remains unclear. Methods: This retrospective study at National Taiwan University Hospital categorized CRS patients into SEB-s|gE+ (serum SEB-specific immunoglobulin E positive), eosinophilic (ECRS), or non-ECRS groups, and controls. We analyzed clinical features, and structured histopathology. Results: In 163 subjects, SEB-s|gE+ (n=34) and ECRS (n=69) groups showed higher blood eosinophils, and ethmoid-predominant opacification than non-ECRS (n=36) and controls (n=24). Both groups exhibited basement membrane thickening and tissue eosinophilia. Notably, SEB-sigE+ CRS showed more severe epithelial sloughing than ECRS ($p=0.005$) despite fewer tissue eosinophils ($p=0.027$), indicating disproportionate epithelial vulnerability. Conclusion: SEB sensitization defines a CRS subtype resembling ECRS but with more extensive epithelial barrier disruption. Findings support strategies addressing both barrier dysfunction and type 2 inflammation.

IS-090 Evaluation of clinical and inflammatory features in patients with eosinophilic CRSwNP in Taiwan

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Objective : Severe eosinophilic CRSwNP is challenging to treat. This study aimed to identify the risk factors for postoperative poor outcome in patients with eosinophilic CRSwNP. Methods : Adult patients with bilateral CRSwNP with FESS were prospectively recruited. Type 2 cytokines in nasal polyps were determined using PCR. Correlations between clinical markers and tissue type 2 inflammation, and predictors for residual mucosal inflammation were assessed. Results : In total, 150 participants were recruited. 63.3% exhibited eosinophilic CRSwNP. BEC exhibited the highest correlation with tissue type 2 inflammatory severity. 28% with eosinophilic CRSwNP experienced residual sinus inflammation. The prevalence of asthma, NPS, LMS, E/M ratio, olfactory cleft opacification score, ECP level, and TEC were significantly higher in these patients. A nomogram was constructed to predict the probability of post-op residual sinus inflammation. Conclusions : Clinicians can use a nomogram, based on asthma, NPS, LMS, E/M ratio, and olfactory cleft opacification score, to predict therapeutic outcomes and the need for postoperative adjuvant therapy.

IS-091 Inflammatory Endotypes of Chronic Rhinosinusitis with Nasal Polyps in Hong Kong

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Background : Data on inflammatory endotypes in chronic rhinosinusitis with nasal polyps (CRSwNP) are limited, particularly in Asian populations. This study investigated the prevalence of inflammatory endotypes in CRSwNP among patients in Hong Kong. Methods : Ninety-eight participants were recruited, including 48 patients with CRSwNP and 50 controls with inferior turbinate hypertrophy. Cytokine profiles were analyzed using BD Cytokine Bead Array and ELISA to determine inflammatory endotypes. Results : Endotype 2 inflammation was predominant, observed in 82% of CRSwNP cases. Of these, 42% exhibited a pure endotype 2 profile, while 40% showed mixed endotype 2 inflammation with endotype 1 and/or 3 involvement. Endotype 1 and 3 inflammation occurred less frequently. Conclusion : Endotype 2 inflammation predominates in CRSwNP in the Hong Kong population, consistent with Western cohorts, highlighting its relevance as a therapeutic target.

IS-092 Integrated Single-Cell Transcriptomic and Cytometric Profiling in Chronic Rhinosinusitis

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Background : In East Asia, a substantial proportion of chronic rhinosinusitis with nasal polyps (CRSwNP) is non-type 2 inflammation (non-T2I), yet its cellular mechanisms remain less defined. Methods : Sinonasal tissues from CRS patients undergoing sinus surgery were analyzed using single-cell RNA sequencing (scRNA-seq) via the HIVE picowell platform, and immune populations were characterized with a 46-marker mass cytometry (CyTOF) panel. Results : Analysis of 96,788 high-quality single cells identified diverse epithelial, endothelial, and immune populations. Distinct endotype-specific cellular architectures were observed. Non-T2I CRS was enriched for T cells, dendritic cells, monocytes, and neutrophils, whereas T 2I CRS showed increased eosinophils, basophils, and distinct neutrophil subsets. Epithelial populations displayed divergent transcriptional signatures between endotypes. CyTOF analysis confirmed differential abundance of myeloid and granulocyte subsets. Conclusions : Integrated single-cell transcriptomic and cytometric profiling reveals distinct epithelial-immune landscapes in CRS, supporting endotype-driven precision management strategies.

IS-093 Surgical management of chronic rhinosinusitis with nasal polyps in adults with Proteus syndrome

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Background : Proteus syndrome is a rare sporadic overgrowth disorder caused by somatic AKT1 mutations. Craniofacial involvement may distort sinonasal anatomy, complicating endoscopic sinus surgery. Chronic rhinosinusitis with nasal polyps (CRSwNP) is rarely reported. Objective : To describe surgical challenges and outcomes of endoscopic sinus surgery for CRSwNP in Proteus syndrome. Methods : Two adult males with Proteus syndrome and CRSwNP were reviewed at tertiary centres in South Africa and the United States. Results : One patient had severe refractory CRSwNP with marked sinonasal distortion, extensive exostoses, skull base asymmetry, and complete sinus opacification, requiring navigation-assisted extensive endoscopic sinus surgery including bilateral Draf III. The second patient underwent standard functional endoscopic sinus surgery with complete symptom resolution and no recurrence at four-year follow-up. Conclusion : CRSwNP can occur in Proteus syndrome and may present significant surgical challenges. Meticulous preoperative planning and image guidance are critical for safe management.

IS-094 Quantification of beta-(1,3)-D-glucan tissue levels of nasal polyps in chronic rhinosinusitis.

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Against universally encountered fungal components and latent molecules of other antigens, the quantification of beta-(1,3)-D-glucan (beta-D-glucan) in the local airway tissues is quite unknown. In this study, we measured its levels in the local airway tissues and examined its association with postoperative outcomes and allergic inflammation molecules. We obtained nasal polyp tissues underwent ESS, after the exclusion of invasive fungal infection. Tissues were homogenized, and the beta-D-glucan levels were quantified using ELISA. The tissue levels of beta-D-glucan were significantly higher in the recurrence group. ROC curve analysis identified a cut-off value and Kaplan-Meier analysis revealed that the high-level group exhibited a significantly higher rate of polyp recurrence. The local specific IgE, total IgE, and IL-4 levels were significantly higher in high beta-D-glucan group. This is the first report to have quantified the levels of beta-D-glucan in airway tissues without invasive fungal infection, and its levels are associated with local allergic sensitization and predict postoperative recurrence of nasal polyps in CRSwNP.

IS-095 Dupilumab Effectiveness in Chronic Rhinosinusitis with Nasal Polyps : A Meta-analysis

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Introduction : Chronic rhinosinusitis with nasal polyps is a burdensome inflammatory disease with high recurrence rates despite standard surgical and corticosteroid interventions. Monoclonal antibodies, particularly dupilumab, have emerged as a pivotal therapy targeting type 2 immune responses. This study evaluates the effectiveness of dupilumab. Methods : A systematic review and meta-analysis were conducted in accordance with the PRISMA 2020 guidelines, searching PubMed, EMBASE, and three additional databases through January 2020. Eligible studies included patients with Chronic rhinosinusitis with nasal polyps treated with dupilumab. Outcomes assessed were the SinoNasal Outcome Test (SNOT-22) and Nasal Polyp Score (NPS). Data were synthesised using random-effects models in R Studio. Results : Analysis of 27 studies (2, 543 patients) showed a mean SNOT-22 score reduction of 34. 1 points and an average NPS decrease of 3. 4 points. Conclusions : This systematic review and meta-analysis confirms that dupilumab provides substantial sinonasal benefits for severe Chronic rhinosinusitis with nasal polyps, often exceeding the symptomatic improvements observed in controlled clinical trials.

IS-096 Dupilumab achieves clinical remission of comorbid asthma in patients with high-burden ECRS

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Background : Eosinophilic chronic rhinosinusitis (ECRS) frequently coexists with asthma, and CRS may worsen asthma burden. However, how comorbid ECRS influences the clinical efficacy of dupilumab remains unclear.

Objective : To examine how coexisting refractory ECRS affects asthma outcomes during dupilumab treatment.

Methods : We prospectively enrolled 52 patients with asthma complicated by ECRS and evaluated outcomes after dupilumab initiation for ECRS. At 2 years, asthma clinical remission was assessed, defined as asthma control test (ACT) ＞＝23, no oral corticosteroid use, no exacerbations within the prior 12 months, and FEV1 ＞＝80% predicted.

Results : At baseline, 32. 7% had poorly controlled asthma (ACT ＜20). Dupilumab significantly improved ACT, FEV1, sinonasal symptoms, and Lund-Mackay scores (LMS). Improvements in ACT correlated with changes in pos-tnasal drip symptoms and LMS. At 2 years, 65. 4% achieved clinical remission. Remission was more common in younger patients and in those with milder airflow limitation and higher baseline sinonasal symptom burden, including post-nasal drip.

Conclusion : Dupilumab provides substantial asthma control in patients with high-burden ECRS.

IS-097 One-year Outcome of Short-term Post-operative Dupilumab for Chronic Rhinosinusitis With Nasal Polyps

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Introduction : Recent evidence indicates combining endoscopic sinus surgery (ESS) with biologics may enhance outcomes in chronic rhinosinusitis with nasal polyps (CRSwNP). This study evaluated one-year outcome after bilateral ESS with short-term adjuvant dupilumab. Methods : CRSwNP patients who underwent bilateral ESS followed by at least 3 doses of dupilumab were included. The first dose was administered one day postoperatively, the second at two weeks, followed by monthly doses. Recurrence was defined as a 22-item Sinonasal Outcome Test (SNOT-22) score ≥40 or a nasal polyp score ≥1. Results : Thirty-two patients were included in the study. The mean blood eosinophil count (BEC) was 460 ± 275. 7 cells/μL and tissue eosinophilia was observed in all patients. The mean number of biologic doses administered was 5. 53 ± 3. 05, with the final dose administered at a median of 95 days postoperatively. At one year, 8 patients (25%) had recurrence. Preoperative SNOT-22 score, Lund-Mackay score, BEC and asthma did not differ significantly between recurrent and non-recurrent patients. Conclusions : Combining ESS with short-term postoperative dupilumab achieved favorable one-year outcome.

IS-098 Neutrophilia and Neutrophil-Eosinophil Ratio Predict Inadequate Response to Postoperative Dupilumab

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Background : Dupilumab has transformed Type 2 (T2) CRSwNP management, yet inadequate responses persist. Identifying predictors of failure is vital, especially in heterogeneous populations. Methods : This prospective study followed 26 patients with advanced T2 CRSwNP undergoing surgery followed by adjuvant dupilumab. Response was assessed at 3 and 6 months postoperatively. Results : Inadequate response occurred in 38. 5% of patients at 3 months and 50% at 6 months. High baseline neutrophil counts and neutrophil-to-eosinophil (NE) ratios were significantly linked to poor outcomes ($p < 0. 005$). In multivariate analysis, absolute neutrophil count independently predicted inadequate response at 3 months ($p = 0. 033$), while the NE ratio became the sole independent predictor at 6 months ($p = 0. 041$). Conclusions : Baseline neutrophilia and high NE ratios predict poor response to postoperative dupilumab. The shift from neutrophil burden to inflammatory balance highlights the role of mixed endotypes. These accessible biomarkers allow for better patient stratification and personalized treatment in advanced disease.

IS-099 Tissue Eosinophil Density and Olfactory Dysfunction in Chronic Rhinosinusitis with Nasal Polyps

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Background : Olfactory dysfunction in chronic rhinosinusitis with nasal polyps (CRSwNP) is a distressing symptom that impairs flavour perception. In Western patients, smell loss correlates strongly with type 2 eosinophilic inflammation, but Asian populations show varied endotypes with unclear eosinophilia-olfactory links. This study examined tissue eosinophil burden and subjective olfactory dysfunction in Hong Kong CRSwNP patients. Method : This prospective cross-sectional study included patients undergoing endoscopic sinus surgery at the Prince of Wales Hospital. Sinonasal samples were H&E-stained, and peak eosinophil density quantified at 400× magnification. Smell loss rated using SNOT-22 item (0-5), with severe loss defined as ≥4. Correlations were analysed using Spearman and Mann-Whitney U tests. Result : Among 37 patients, 59% reported severe olfactory dysfunction. Eosinophil count did not correlate with symptom severity ($\rho = -0.23$, $p = 0.17$) or differ between severity groups ($p = 0.21$). Conclusion : Tissue eosinophil burden was not significantly associated with subjective olfactory loss, suggesting non-eosinophilic or mechanical factors may predominate in Asian CRSwNP.

IS-100 Mixed Type 2 Endotypes on Subjective Symptoms in Asian Chronic Rhinosinusitis with Nasal Polyps

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Background : Asian chronic rhinosinusitis with nasal polyps (CRSwNP) is a heterogeneous inflammatory disease featuring prevalent mixed endotypes and an emerging 'eosinophilic shift.' While type 2 (T2) endotype is well-characterised in Western cohorts, the clinical impact of mixed T2 and non-T2 subtypes in Asians remains unclear. Method : This prospective study examined the link between mixed endotypes and subjective symptom burden in 38 endotypeable CRSwNP patients from Hong Kong. Patients were stratified into T2, mixed T2 and non-T2 groups, with pre-operative symptoms assessed via the Sino-Nasal Outcome Test-22 (SNOT-22) questionnaire. Result : Mixed T2 and non-T2 subtypes comprised 58% of cases. While total SNOT-22 scores were similar across groups, mixed T2 subtypes exhibited significantly higher ear/facial and nasal domain scores than T2. This increased nasal burden was primarily driven by severe rhinorrhea. Conclusion : Mixed T2 subtypes are qualitatively distinct clinical entities, not mere intermediates, associated with more severe ear/facial discomfort and nasal symptoms than pure T2. These SNOT-22 subcategory patterns may enable early screening for mixed endotypes.

IS-101 Therapeutic efficacy of dupilumab compared with endoscopic sinus surgery for olfactory dysfunction

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Background : Olfactory dysfunction (OD) is common in eosinophilic chronic rhinosinusitis (ECRS). Both endoscopic sinus surgery (ESS) and dupilumab have been reported to improve OD, but direct comparative studies are limited. Methods : We reviewed 357 ECRS patients who underwent primary ESS between March 2011 and October 2024. Patients were divided into an ESS group ($n = 334$), who achieved favorable outcomes with ESS alone, and a dupilumab group ($n = 23$), who received dupilumab without revision surgery. Detection and recognition thresholds using T&T olfactometer and self-administered odor questionnaire (SAOQ) scores were assessed before and after treatment. Results : Before treatment, the dupilumab group showed significantly worse detection and recognition thresholds and poorer SAOQ scores compared with the ESS group ($p < 0.01$). After treatment, no significant differences were observed between the two groups. Both groups showed significant postoperative improvements in all olfactory outcomes ($p < 0.05$). Conclusion : Both ESS and dupilumab treatments significantly improved OD due to ECRS. Comparable postoperative outcomes suggest that these treatments had similar therapeutic benefits.

IS-102 SubmentalFlap in Reconstruction of Composite Resection in Elderly and ComorbidPatients

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Background : Buccal mucosa and gingivobuccal sulcus cancers are the most common oral cavity malignancies in India, with most patients presenting at advanced stages. microvascular free flaps are the standard reconstructive option, elderly patients with significant comorbidities often cannot tolerate prolonged surgery. In such cases, pedicled flaps like the submental flap (SMF) offers a reliable alternative with shorter operative time and low donor site morbidity. Methods : We retrospectively analyzed 136 patients aged ＞65 years with multiple comorbidities who underwent composite resection with immediate SMF reconstruction between 2018 and January 2024. Postoperative complications, operative time, and oncological outcomes were assessed over a median follow-up of 24 months. Results : Complete flap survival was achieved in 94.1% of patients. Mean operative time was 180-210 minutes, with no perioperative mortality. Locoregional recurrence occurred in 19.1% of patients and was significantly higher in node-positive disease (p＝0.008). Conclusion : The submental flap is a safe, effective, and oncologically sound reconstructive option for elderly and medically compromised patients.

IS-103 Withdrawn

IS-104 Exploring the Pattern and Prognosis of Occult Nodal Metastasis in Oral Squamous Cell Carcinoma

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Background : Cervical lymph node metastasis is a major prognostic factor in oral squamous cell carcinoma (OSCC). However, the role of occult nodal metastasis with cN0 but pN＋ remains unclear. Methods : We retrospectively analyzed 8444 cN0 OSCC patients. We evaluated correlation between histopathological features and occult nodal involvement, alongside treatment and survival outcome. Results : Occult nodal metastasis occurred in 15% of patients, predominantly with pN 2-3 status. Multivariate analysis identified depth of invasion＞10mm, poor differentiation, tumor size＞4cm, lymphovascular invasion, perineural invasion as independent risk factors. T3 tumor was highly associated with pN2/N3 status. Notably, 25 % of cN0pN＋ patients exhibited extranodal extension(ENE). While pathological nodal metastasis negatively impacted survival, adjuvant radiotherapy improved survival across different pN stages. Conclusion : Occult nodal metastasis in OSCC frequently present pN2-N3 disease with high ENE rates. Multiple histopathological features independently predict this risk. Adjuvant radiotherapy offers survival benefit and should be carefully integrated into treatment plan for high-risk cN0 OSCC patients.

IS-105 Clinical and Histological factors predicting nodal metastasis in oral cavity cancers

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Background : Nodal metastasis is a major determinant of prognosis in oral cavity cancers, making early and accurate prediction essential for guiding surgical and adjuvant treatment strategies. Methods : A retrospective study was conducted on patients who underwent primary tumor resection with neck dissection for oral cavity cancers between January and December 2024 at a tertiary care center. Clinicopathological variables including histological grade, depth of invasion (DOI), lymphovascular invasion (LVI), tumor thickness, and tumor volume were analyzed. The primary endpoint was pathological nodal positivity. Results : Among 288 patients (75% male ; median age 55 years), nodal metastasis was present in 47. 2%. Univariate analysis identified tumor volume >10. 7 cc ($p=0.03$), DOI >1. 15 cm ($p=0.006$), and advanced T stage ($p<0.001$) as significant predictors. On multivariate analysis, T stage remained an independent predictor (OR = 0. 25, $p<0.05$). Conclusion : Tumor volume, T stage, and DOI are significant predictors of cervical nodal metastasis in oral cavity cancers.

IS-106 Significance of Sublingual Space Invasion in Oral Tongue Squamous Cell Carcinoma

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Introuction : In oral cavity cancers, the tumor depth of invasion, cortical bony erosion, and invasion of masticator space and skull base are utilized in 8th AJCC T classification. We investigate if sublingual space invasion determined on MRI confers differences in clinicopathological manifestations and prognosis. Methods : Retrospective cohort study in an Asian medical center. 221 patients with OTSCC were included. All patients underwent surgery +/− adjuvant therapy. Patient characteristics, histopathology and survival data were analysed via Cox regression and Kaplan-Meier methods. Results : Sublingual space invasion was associated with cervical nodal metastasis (adjusted OR : 2. 588, $p<0.05$). Sublingual space invasion was a prognosticator of poorer disease-free survival (aHR : 1. 700,$p=0.02$). In overall survival, when controlled for age, gender, overall TNM, Charlson morbidity index, surgical margins, depth of invasion and adjuvant therapy, sublingual space invasion was associated with poorer OS (aHR : 1. 622, $p=0.044$). Conclusion : Sublingual space invasion in OTSCC is an independent prognostic factor. Incorporating it into staging may improve predictive accuracy for treatment outcomes.

IS-107 Nodal Burden-Based Reappraisal of OSCC Nodal Staging Using Survival Modeling

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Patients with OSCC of the same AJCC (pN) category have varied oncological outcomes. We hypothesised that incorporating nodal burden could improve prognostic prediction. We analysed 2, 600 OSCC patients treated with upfront surgery between 2015 and 2021. The Mean follow-up was 26 months. Nodal burden was selected as the stratifying variable based on AUC analysis. Two nodal burden-based classification models were developed using disease-free survival (DFS) as the primary endpoint. Survival outcomes were assessed using K-M analysis and Cox hazards modelling. Model performance was compared with AJCC pN staging using AIC. AJCC pN staging significantly stratified DFS ($p<0.001$), but substantial overlap in outcomes was observed within advanced nodal categories. In contrast, nodal burden-based classifications demonstrated clearer separation of risk groups. A simplified four-category nodal model showed the best prognostic performance (AIC 11287. 36), outperforming AJCC pN staging (AIC 11342. 18) and a five-category model. High nodal burden independently predicted inferior DFS outcomes. Incorporating nodal burden improves prognostic precision beyond current AJCC pN staging.

IS-108 Benign Tumors of the Major Salivary Glands: A Retrospective Analysis of Surgically Treated Patients

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This retrospective study included 997 patients who underwent surgery at the Department of Otorhinolaryngology and Head and Neck Surgery, First Faculty of Medicine, Charles University and Motol University Hospital between years 2006 and 2021. Our analysis confirmed the dominant representation of pleomorphic adenoma (PA) and Whartin`s tumor (WT); however, compared with traditionally reported epidemiological data, the proportion of WT was higher. This finding is consistent with recent European studies describing an increasing incidence of WT. Possible explanations include the rising prevalence of obesity and metabolic syndrome, as well as broader use of imaging modalities. From a demographic perspective, we confirmed that PA is more frequently diagnosed in younger female patients, whereas WT predominates in older male patients. This retrospective analysis confirmed a shift in the distribution of benign tumors of the major salivary glands toward a higher proportion of WT. Accurate preoperative diagnostics is crucial for therapeutic decision-making.

IS-109 Withdrawn

IS-110 Prognostic Factors and Survival Outcomes of Parotid Gland Carcinoma

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Objective: Parotid gland carcinoma's rarity and histological diversity make prognostic assessment challenging. We aimed to identify key factors influencing patient outcomes. Methods: This 20-year retrospective study analyzed 106 patients. We evaluated the impact of histology, facial nerve function, and treatment modalities on disease-free survival (DFS) and overall survival (OS). Results: DFS was significantly associated with concomitant neck dissection (ND), lymphovascular invasion, and positive neck nodes ($p<0.05$). OS was influenced by ND, facial nerve sacrifice, perineural invasion, and positive nodes. Notably, both DFS and OS were independently impacted by ND and pathological nodal status ($p<0.05$). Conclusions: Pathological nodal involvement and the clinical necessity of ND are critical prognostic indicators. The pre-treatment decision for parotidectomy with ND often correlates with poorer survival. Future molecular testing may further refine prognostic prediction for this complex malignancy.

IS-111 Proton therapy in salivary gland malignancies－a retrospective study

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Primary tumors of salivary glands belong to a group of rare diagnoses, representing approximately 3–6% of all head and neck malignancies. The first choice method is considered to be surgical therapy combined with radiotherapy. Proton therapy comes to the fore nowadays. It might promise reduction of the dose targeted on surrounding organs with preservation of the desired dose. The aim of the retrospective study is to verify the effect of proton therapy of malignant salivary gland tumors, to evaluate severity of late toxicity and compare the results with adjuvant photon therapy in up-to-date resources. A cohort of 43 patients treated with proton beam therapy with median follow-up 2 years and 10 months, collected from Proton therapy center and Motol University Hospital database between years 2012 and 2022. The estimated 5-year survival in surgical therapy + adjuvant therapy was 60%, in primary oncological therapy 42%. The most common late toxicity symptom was fibrosis and dermatitis. There has been noticed no toxicity higher than grade 2 (RTOG scale), significant benefit from lower late toxicity and lesser impact on the upper aerodigestive tract has been proved.

IS-112 Actionable genomic alterations in salivary gland carcinoma: an open database analysis

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Background: Salivary gland carcinoma is rare and histologically heterogeneous, making treatment selection difficult. Genomic profiling with cancer gene panels may expand systemic treatment options. Objectives: To describe, by histologic subtype, the frequency and clinical implications of genomic alterations that can guide drug selection in salivary gland carcinoma. Methods: Cases were extracted from the AACR Project GENIE v18 open database and analyzed on a per-patient basis. Actionable alterations were grouped as (1) established biomarkers with approved targeted or immune therapies (HER2, NTRK, RET, BRAF, TMB) and (2) emerging targets (PI3K, HRAS, EGFR, BRCA1/2, NOTCH). Results: In salivary duct carcinoma, HER2 amplification (ERBB2_amp) occurred in about 30% of cases. Secretory carcinoma showed NTRK fusions in more than 90% of cases. RET and BRAF alterations were infrequent, whereas alterations in PI3K, HRAS, EGFR, BRCA1/2 and NOTCH appeared across multiple subtypes. Conclusions: Salivary gland carcinomas have histology-specific genomic alterations that can inform systemic therapy and highlight candidates for future targeted approaches.

IS-113 Steroid Use in Sialendoscopy－A World Review

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Objective: This study provides a timely update on the debated use of steroids in sialendoscopy, a minimally invasive procedure for salivary gland pathologies. It is the first to focus specifically on this adjunctive treatment. Methods: A qualitative analysis was conducted per PRISMA guidelines. Included studies involved adults with salivary gland disease who received oral, injectable, or irrigated steroids around the time of sialendoscopy. A quantitative analysis and risk of bias assessment were also performed. Results & Conclusion: Eight moderate-to-high-quality studies were included. Symptomatic relief occurred irrespective of steroid type or dose. However, quantitative data was insufficient to confirm statistical significance, as the therapeutic effect of steroid irrigation may be confounded by mechanical flushing. Further investigation is required to establish definitive efficacy.

IS-114 Time-Dependent Analysis of HUS change in Older Patients with Head and Neck Cancer

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Background : Age over 75 years is independently linked to poorer Health Utility Index Mark 3 (HUI-3) outcomes. We compared longitudinal health utility scores (HUS) between older (>75) and younger head and neck cancer patients across clinical subgroups and identified factors associated with quality-of-life decline. Methods : Clinical and follow-up data were prospectively collected. HUI-3 was measured at baseline, post-surgery, mid-radiation, and at 3, 6, and 12 months. A linear mixed model assessed HUS changes over time by age group. Results : Among 859 patients (495 <65, 288 aged 65-75, 76 >75), those >75 showed progressive HUS decline, worsening notably after 3 months and remaining lower than younger groups. The greatest decline occurred in oropharyngeal and oral cavity cancers and in those with baseline ECOG 0. Conclusion : Intensive post-treatment monitoring is warranted for patients >75 years, particularly with oropharyngeal or oral cavity cancers and excellent baseline performance status.

IS-115 Prognostic impact of metastatic and non-metastatic lymph nodes in head and neck cancer

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Cervical lymph node metastasis is a major prognostic factor in head and neck cancer, and comprehensive neck dissection remains standard. However, cervical lymph nodes also serve as key sites for initiating antitumor immune responses. This study examined how metastatic and non-metastatic lymph node counts relate to systemic immune status and clinical outcomes in patients who underwent neck dissection from April 2015 to March 2025. Immune-inflammatory and nutritional indices were calculated from preoperative blood tests. Overall survival (OS) and progression-free survival (PFS) did not differ significantly between pN- and pN+ groups. However, when using metastatic lymph node counts or the log odds of positive lymph nodes (LODDS), pN+ patients showed significantly worse prognosis and had lower CAR values. Subgroup analyses revealed that in pN- patients, a higher number of non-metastatic lymph nodes correlated with better PFS, whereas in pN+ patients, a higher count was associated with poorer OS. These findings suggest differing biological roles of cervical lymph nodes in non-metastatic versus metastatic settings, warranting further study of antitumor immune responses.

IS-116 Clinical and Economic Impact on Pediatric Head and Neck Cancer in Indonesia

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Pediatric head and neck cancers impose a substantial health and economic burden in Indonesia, this study evaluates the cost-effectiveness of early detection and centralized ENT referral pathways for pediatric head and neck cancers requiring surgical management. Late-stage diagnosis and limited access to otorhinolaryngology-head and neck services contribute to poor survival and financial hardship. Using national registry and hospital-based data, including PedsCommons, we estimated direct medical, non-medical, and caregiver productivity costs. A cost-effectiveness analysis compared current practice with an intervention integrating early detection and strengthened ENT referral pathways. More than 60% of cases were diagnosed at advanced stages, with treatment costs exceeding USD 5, 000 per patient. Early detection shifted approximately 40 % of late-stage cases to earlier stages, reduced treatment costs by 25%, and improved survival by 30%. The incremental cost-effectiveness ratio was approximately USD 3, 100 per death averted. These findings indicate that ENT-led early diagnosis improves clinical outcomes while representing a highly cost-effective use of health resources.

IS-117 EXTRA NODAL EXTENSION IN HEAD AND NECK SQUAMOUS CELL CARCINOMA

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To investigate the prognostic significance of classifying extranodal extension (ENE) into minor ENE (miENE, up to 2 mm) and major ENE (maENE, over 2 mm) in non-HPV squamous cell carcinoma of the head and neck, we retrospectively reviewed microscopic slides from neck dissection specimens of ENE-positive patients and subcategorised them into minor ENE and major ENE. We then compared the two categories in terms of overall survival (OS), disease-specific survival (DSS), and disease-free survival (DFS). Forty-four patients with pathologically positive necks had ENE in the histological report. Twenty-six had minor ENE and eighteen has major ENE. The three-year OS was 46% in the miENE group and 38.9% in the maENE group. DSS and DFS were 80.8% and 80.8%, respectively, in the miENE group and 61.1% and 77.8%, respectively, in the maENE group. None of the comparisons revealed any statistically significant difference. The results of our survival analysis seem to show a trend towards better survival rates in the miENE group, particularly regarding OS.

IS-118 Cancer Care Control: How Clinicians Can Make a Difference

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India, especially the western region, has witnessed a significant epidemiological transition with an alarming rise in head and neck cancer cases. The oral cavity remains the most common subsite, being the most prevalent among men and the third most common among women. In this epidemic situation, an increasing number of young patients are being diagnosed with oral cancer, with the most commonly identified reason being the socially accepted and encouraged habit of tobacco chewing.

Global efforts in oncology aim to achieve overall control in morbidity and mortality. Although there has been significant improvement in local control and overall survival, clinicians continue to strive to manage the increasing disease burden while delivering better functional outcomes and comprehensive care, including microvascular reconstruction. The overall economic impact of oral cancer, if not adequately addressed, is estimated to be three billion dollars.

The average delay in diagnosis is approximately seven months, and nearly sixty to seventy percent of patients present in stage III or stage IV disease. This highlights the urgent need for effective primary and secondary prevention strategies, along with clear guidelines for early diagnosis and timely treatment. This presentation aims to share experiences from treating over 10,000 cases in high-burden areas.

IS-119 A Case Report of Protective Fibers in a 6-month Denture Ingestion

○Sarah Penafrancia L. Coralde, Ryner Jose Carrillo
Philippine General Hospital

Foreign body ingestion is a common emergency consult in otolaryngology. Longer retention increases perforation risk, highlighting the need for timely treatment. We report an unusual case involving a 32 year old male with delayed presentation of foreign body ingestion. The patient was initially asymptomatic and was managed conservatively. Despite recommending early interventions due to significant risks and potential complications, he declined surgery. Six months later, he came back presenting with dysphagia and odynophagia. Endoscopic foreign body extraction was performed under general anesthesia, successfully resolving his symptoms. An esophagoscopy revealed that the dentures were encased in protective vegetable fibers bezoar preventing the dentures from causing mucosal abrasion. The protective fibers created a cushioning effect over the sharp edges of the retained denture, preventing further clinical deterioration. Post-operative evaluation showed no further complications, and the patient was discharged in good health. This case highlighted that despite prolonged retention of foreign body, prompt recognition and removal are still key for successful outcomes.

IS-120 Efficacy of Nicergoline for Neuromuscular Dysphagia : A Randomized Controlled Trial Study

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Objectives : Neuromuscular dysphagia increases aspiration risk and reduces quality of life. This study evaluated the efficacy of Nicergoline, which enhances Substance P, as a treatment for this condition. Methods : This double-blind RCT randomized 42 patients to receive Nicergoline or a placebo for 4 weeks. Outcomes were assessed using FEES, FEES parameter (premature spillage, postswallow residue and penetration-aspiration scale (PAS)) and a Visual Analog Scale (VAS).Results : The Nicergoline group showed a statistically significant improvement in PAS scores compared to the placebo ($p = 0.040$), indicating enhanced swallowing safety. While FEES and VAS scores showed positive trends, the differences were not statistically significant ($p = 0.136$ and $p = 0.108$, respectively). No serious adverse events were reported. Conclusion : Nicergoline is a safe pharmacological adjunct that significantly improves airway protection by reducing aspiration in neuromuscular dysphagia.

IS-121 Compatibility of MGCS-INA and EAT-10 INA Compared to FEES in Diagnosing Dysphagia among MG Patients

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Background : Dysphagia affects 15-50% of Myasthenia Gravis (MG) patients and can lead to myasthenic crisis. At our institution, dysphagia screening in MG patients relies on self-reported MGCS-INA, while FEES enables early detection of dysphagia in order to prevent severe complications. Objective : To evaluate the compatibility of MGCS-INA and EAT-10 INA with FEES in diagnosing dysphagia in MG patients at CMGH. Methods : A cross-sectional study of 61 MG patients with or without dysphagia symptoms was conducted using MGCS-INA, EAT-10 INA, and FEES. Results : FEES identified dysphagia in 41 patients (67.2%), including asymptomatic cases. Mild dysphagia and pre-swallowing leakage were the most common findings. MGCS-INA showed no compatibility with FEES, while EAT-10 INA demonstrated weak compatibility. Conclusion : FEES should be performed in MG patients regardless of symptoms, particularly those with chewing or swallowing difficulties or reduced neck strength. EAT-10 INA is a useful screening tool, and early dysphagia management is essential to prevent myasthenic crisis. Keywords : Dysphagia, Myasthenia gravis, MGCS-INA, EAT-10 INA, FEES.

IS-122 Evaluation of Food Dye Reproducibility and Optimal Color Contrast in FEES

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Objective : To determine the reproducibility of food preparation used in Flexible Endoscopic Evaluation of Swallowing (FEES) in terms of food consistency and color. Methods : This cross-sectional study was conducted in a tertiary private university hospital. Forty-four participants were included : 11 otorhinolaryngology-head and neck surgery (ORL-HNS) residents in training, 11 staff nurses, 11 clinical clerks, and 11 medical interns. Participants prepared standardized food samples for FEES using a uniform protocol. Preparation time was recorded, and food color was assessed using Pantone color matching. Results : Mean preparation times were similar across groups : 5.81 ± 1.37 minutes for clinical clerks, 5.94 ± 1.26 minutes for medical interns, 5.16 ± 1.20 minutes for staff nurses, and 5.52 ± 1.64 minutes for ORL-HNS residents. Pantone color analysis showed low variability, with 1.2% of samples corresponding to Pantone 362, 24.4% to Pantone 363, and 74.4% to Pantone 364. Conclusion : The low variability in preparation time and color measurements suggests that the FEES food preparation protocol is reproducible across different healthcare provider groups.

IS-123 Patient Characteristics and Oral Intake Outcomes Following Swallowing Improvement Surgeries

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Background : The clinical factors associated with improved oral intake after swallowing improvement surgeries (SISs) remain unclear. This study investigated patient characteristics, postoperative oral intake outcomes, and factors contributing to improvement. Methods : Patients who underwent SISs between 2010 and 2025 were retrospectively analyzed. Demographics, postoperative complications, oral intake status (Functional Oral Intake Scale : FOIS), and tracheostoma closure were evaluated. Results : A total of 59 patients were included. Complications occurred in 20 patients (34%), mainly surgical site infection (n = 10). FOIS improved from 1 preoperatively to 5 postoperatively ($p < 0.001$). Laryngeal suspension, low baseline FOIS, and multiple procedures were associated with FOIS improvement of ≥2 points ($p < 0.05$). Among 43 patients (73%) requiring a tracheostoma, 13 (30%) achieved closure and 28 (65%) were transitioned to a speech cannula. Conclusion : SISs significantly enhanced postoperative oral intake. Patients with lower preoperative FOIS had greater potential for improvement, and laryngeal suspension and multiple procedures contributed to better postoperative outcomes.

IS-124 Swallowing Evaluation and Management in Adult Muscular Dystrophy : Experience with DM1 and OPMD

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Background and Aims : Dysphagia is a major clinical problem in adult muscular dystrophy and affects quality of life. Myotonic dystrophy type 1 (DM1) and oculopharyngeal muscular dystrophy (OPMD) are representative disorders in which dysphagia frequently becomes problematic. This study aimed to evaluate swallowing function and management with DM1 and OPMD. Methods : Patients with DM1 and OPMD followed for more than five years at Kitasato University Hospital between 2016 and 2025 were retrospectively reviewed. Clinical background, dietary status, and findings of videoendoscopic examination of swallowing (VE) were analyzed. Results : Twenty-two patients were included. Sixteen patients maintained oral intake, while three required gastrostomy support and three died during follow-up. VE frequently demonstrated poor pharyngeal constriction and marked saliva pooling, however, many patients maintained oral intake with compensatory strategies. Selected OPMD patients benefited from swallowing-related surgery. Conclusions : Even in adult muscular dystrophy patients with severe pharyngeal findings, long-term oral intake can be achieved through careful evaluation and individualized management.

IS-125 Role of Botulinum Toxin Injection in the Management of Dysphagia and Sialorrhea in a Lateral Medullary Syndrome Patient

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Background :
Lateral medullary syndrome (LMS), or Wallenberg syndrome, commonly results from posterior inferior cerebellar artery stroke and is frequently associated with severe dysphagia, sialorrhea, and aspiration due to involvement of the nucleus ambigus and disrupted bulbar coordination. These complications significantly increase morbidity and prolong dependence on Ryles tube feeding.
Objective :
To evaluate the therapeutic role of botulinum toxin injection in improving dysphagia and controlling sialorrhea in patients with lateral medullary syndrome.
Methods :
Patients with LMS presenting with persistent dysphagia and/or intractable sialorrhea despite conservative management were treated with targeted botulinum toxin injections. Botox was administered into the cricopharyngeus muscle for cricopharyngeal dysfunction (via TNE guided) and into bilateral parotid and submandibular glands for sialorrhea, under ultrasound guidance. Clinical outcomes were assessed using swallowing function, aspiration episodes, drooling severity, and feeding dependency.
Results :
Botulinum toxin injection resulted in significant improvement in swallowing efficiency, reduction in aspiration events, and marked control of sialorrhea. Several patients demonstrated improved tolerance to oral feeds and reduced dependence on nasogastric or gastrostomy feeding. The procedure was well tolerated with no major complications, and benefits were sustained for several months.
Conclusion :
Botulinum toxin injection is a safe, minimally invasive, and effective adjunctive therapy in the management of dysphagia and sialorrhea in lateral medullary syndrome. It offers a valuable therapeutic option to improve the quality of life and reduce aspiration-related morbidity in selected patients.
Keywords :
Lateral medullary syndrome, Wallenberg syndrome, botulinum toxin, dysphagia, sialorrhea, cricopharyngeal dysfunction

IS-126 A suspected case of cochlear migraine

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With the publication of the diagnostic criteria for vestibular migraine, the link between migraine and vestibular symptoms became clear. However, the relationship between migraine and cochlear symptoms is still unclear. We report a case of sensorineural hearing loss in which hearing improved after administration of a calcium channel blocker, a preventive medication for migraines. The case was a man in his thirties. He had left-sided sensorineural hearing loss that had developed 11 days prior and visited our hospital. Audiometry revealed sensorineural hearing loss, which improved one week after steroid treatment. However, during follow-up, left-sided sensorineural hearing loss recurred. Steroid treatment and hyperbaric oxygen therapy were administered, but there was no improvement. During follow-up, the patient complained of headaches accompanied, so we suspected migraines and administered a calcium channel blocker, which improved the sensorineural hearing loss. Migraine can cause a variety of audiologic and vestibular symptoms. However, it is unclear how migraine affects the inner ear. We need to consider the possible involvement of migraine with repeatable hearing loss.

IS-127 Unilateral Hearing Loss : A Case Linked to Cultural Noise (Sound Horeg)

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Background : Unilateral tinnitus and sudden hearing loss remain challenging in diagnosis and management, as symptoms may overlap between conductive, mixed, and sensorineural types. Objective : To describe clinical characteristics and outcomes of patients presenting with unilateral hearing loss, including a unique case related to cultural noise exposure ("sound horeg"). Methods : We retrospectively reviewed 99 patients who presented with unilateral tinnitus and decreased hearing. Audiometric patterns, middle ear findings, and treatment responses were analyzed. Results : Most patients showed sensorineural or mixed hearing loss with variable tympanic findings. Early intratympanic steroid therapy (<72 h) achieved better recovery than delayed or surgical interventions. One patient developed sudden unilateral hearing loss after exposure to "sound horeg," demonstrating a high-frequency notch around 4 kHz consistent with noise-induced damage. Conclusion : Unilateral hearing loss can arise from diverse etiologies, including cultural noise exposure. Awareness of non-occupational acoustic trauma may aid in earlier diagnosis and targeted therapy.

IS-128 Hearing Deterioration During Teprotumumab Treatment for Thyroid Eye Disease

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Teprotumumab (TEP) is an IGF-1 receptor inhibitor used for the treatment of thyroid eye disease. Hearing related adverse events (AE), including tinnitus, hearing loss, and autophony, have been reported in approximately 10 percent of administered cases, with some cases described as severe and irreversible. At our hospital, TEP is administered through close collaboration between ophthalmologists and otolaryngologists. Regular audiological monitoring is performed before, during, and after treatment, and continuation of therapy is discussed with the treating ophthalmologist when auditory AE are identified. Three patients had received TEP at our institution and all three demonstrated hearing deterioration during treatment. None showed an acute onset pattern resembling sudden sensorineural hearing loss; instead, all exhibited gradual hearing decline. Two of the three patients were not aware of their hearing deterioration. Given the insidious and progressive nature of TEP associated hearing loss, which may limit subjective awareness, regular and detailed audiological monitoring regardless of patient reported symptoms is essential for accurate detection of hearing related adverse events.

IS-129 Withdrawn

IS-130 Changes in Hearing Threshold and Signal to Noise Ratio in Patients after Cisplatin Therapy

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Background: Cisplatin is an effective chemotherapeutic agent but is associated with ototoxicity, particularly at high frequencies. Evidence regarding its effects on hearing thresholds and signal-to-noise ratio (SNR), as well as the influence of cancer stage and glomerular filtration rate (GFR), remains limited.

Objective: To evaluate changes in hearing thresholds and SNR after cisplatin chemotherapy and their association with cancer stage and GFR.

Methods: This longitudinal quasi-experimental study included 17 cervical cancer patients receiving cisplatin chemotherapy. Pure-tone audiometry and distortion product otoacoustic emissions (DPOAE) were performed before chemotherapy, after the first, and after the second administration. Statistical analyses included the Friedman test, repeated-measures ANOVA, Kruskal-Wallis test, and Spearman correlation.

Results: Hearing thresholds significantly increased and SNR significantly decreased at several frequencies ($p < 0.05$). No significant association with cancer stage was observed, although greater hearing impairment tended to occur in advanced stages. A significant positive correlation was found between GFR decline and increased hearing threshold at 10,000 Hz in the left ear.

Conclusion: Cisplatin induces hearing impairment, predominantly at high frequencies. Cancer stage and GFR may contribute to the severity of ototoxic effects. Routine auditory monitoring is recommended during chemotherapy.

Keywords: cisplatin, ototoxicity, audiometry, DPOAE, renal function, cancer stage

IS-131 Thyroid Cancer with Internal Jugular Vein Tumor Embolism extending retrogradely to Skull Base

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We report a rare case of thyroid carcinoma with an intraluminal tumor embolus of the internal jugular vein that later progressed cranially and caused multiple cranial neuropathies. An 80 year old woman presented with a right cervical mass that had enlarged over 10 years. Ultrasonography revealed a cystic mass in the right neck and thyroid calcifications. Magnetic resonance imaging at initial presentation demonstrated a cystic lesion with dilatation of the internal jugular vein and intraluminal signal heterogeneity. Fine needle aspiration of right cervical mass was nondiagnostic due to cystic degeneration. During follow up, the patient developed facial paralysis, tongue deviation, and unilateral vocal cord paralysis, suggesting cranial extension. Biopsy of right cervical mass confirmed papillary thyroid carcinoma with a poorly differentiated component. The patient chose best supportive care and died four months after diagnosis. This case suggests that venous tumor embolism may initially present with venous dilatation and later promote cranial extension. Awareness of this progression is important because skull base neurological symptoms may indicate advanced thyroid carcinoma.

IS-132 A Case Report : Follicular thyroid carcinoma with bony metastasis

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We report the case of a 61-year-old female patient with long standing goitre (10 years) and another swelling over the manubrium sternum for 1 year. Imaging study (CECT-Neck) show MNG (both lobes), suspicious of CA thyroid (Follicular CA), upper sternal mass with perifocal bone erosion, left skull base lesion with perifocal bone erosion (likely metastatic lesion). FNAC to thyroid nodule reveal Bethesda V. Total thyroidectomy and debulking excision of tumor over the sternum was done. Sternal bone erosion present. Histopathological report shows Follicular carcinoma of thyroid (left lobe), metastatic follicular carcinoma of thyroid to suprasternal area, MNG (right lobe and isthmus). Patient discharged on post-op day 12 and planned for radioiodine therapy.

IS-133 Synchronous Poorly Differentiated Carcinoma From Ectopic Thyroid Tissue and Papillary Carcinoma

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Ectopic thyroid tissue within cervical lymph nodes has been reported, but malignant transformation is rare. A 62-year-old woman presented with a right neck mass. Imaging showed right cervical lymphadenopathy (20 mm) and thyroid nodules (16 mm in the right lobe and 5 mm in the left). Fine-needle aspiration cytology suggested malignancy in a cervical lymph node, a follicular tumor in the right lobe, and indeterminate findings in the left lobe. PET/CT demonstrated FDG uptake confined to the right cervical lymph nodes and the right thyroid lobe, with no other primary lesion. Total thyroidectomy with right neck dissection was performed for suspected thyroid carcinoma with nodal metastasis. Histology revealed a follicular tumor in the right lobe and papillary thyroid carcinoma in the left lobe. Poorly differentiated thyroid carcinoma was identified in two right cervical lymph nodes, coexisting with normal thyroid tissue, suggesting origin from ectopic thyroid. Ectopic thyroid tissue without malignancy was also observed in multiple other lymph nodes. Malignant transformation of ectopic thyroid tissue should be considered in the differential diagnosis of cervical lymphadenopathy.

IS-134 Single-Port Hairline Approach Thyroidectomy in Male Patients: Clinical Outcomes and Safety

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Objectives: Male patients increasingly prioritize cosmetic outcomes in thyroid surgery. While single-port hairline approach thyroidectomy (SPHAT) is established in females, data for males are limited. This study evaluates the safety and cosmetic outcomes of SPHAT in male patients. Methods: We retrospectively analyzed 31 male patients who underwent SPHAT by a single surgeon between 2020 and 2024. Operative time, complications, pain scores (NRS), and cosmetic satisfaction were assessed. Results: Diagnoses included papillary carcinoma (n=27), follicular carcinoma (n=1), NIFTP (n=2), and adenoma (n=1). Median age was 62 years. Procedures included 28 hemithyroidectomies and 3 total thyroidectomies; 26 underwent central neck dissection. Median operative and console times were 89 and 49 minutes, respectively. No major complications occurred. Mean NRS scores were 3.71 (Day 0) and 2.86 (Day 1). At 6 months, the mean cosmetic satisfaction score was 8.51±1.62. Conclusion: SPHAT is a safe and feasible surgical option for male patients, providing excellent cosmetic results by minimizing visible neck scarring.

IS-135 Update on the Surgical Management of Graves' Disease

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'Graves' disease (GD) is the most common cause of hyperthyroidism worldwide. Surgical treatment is indicated in patients with large goiters, compressive symptoms, moderate to severe ophthalmopathy, pregnancy or breastfeeding, poor response to antithyroid drugs, or suspected malignancy. Compared with euthyroid multinodular goiter, thyroidectomy for GD is associated with a higher risk of complications, including recurrent laryngeal nerve (RLN) injury, postoperative hypocalcemia, and cervical hematoma. Adequate exposure and nerve preservation are essential in GD surgery. The U-shaped strap muscle flap technique provides improved visualization of the operative field in complex thyroidectomy without compromising postoperative voice or swallowing outcomes. Intraoperative nerve monitoring (IONM) facilitates RLN identification, functional assessment, and detection of non-recurrent laryngeal nerves, contributing to surgical safety. In addition, the use of energy-based devices allows effective hemostasis and precise tissue dissection, which may reduce operative time and blood loss. The integration of these techniques may improve outcomes in the surgical management of Graves' disease.

IS-136 Conformal immunomodulatory hydrogels for the treatment of otitis media

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Otitis media (OM), driven by bacterial growth in the tympanic cavity (TC), is commonly treated with ofloxacin (OFL), yet antibiotic resistance and drug leakage limit its efficacy. Here, we present a simple fluid-regulated method for delivering immunomodulatory hydrogels that conformally coat the irregular middle ear surfaces, enhancing bacterial clearance. This strategy markedly accelerates recovery in antibiotic-resistant, acute, and chronic OM rat models, reducing TM inflammation, residual bacteria (0.12×10^5 vs. 0.76×10^5 CFU), and TM/TC mucosal thickness (17.63/32.43 μm vs. 48.70/151.26 μm) compared with OFL. It shows broad-spectrum antibacterial and antibiofilm activity against major OM pathogens. Mechanistically, it boosts innate immunity by promoting antibacterial protein synthesis and macrophage activation, accelerating bacterial elimination and inflammation resolution. This facile, low-cost, and degradable approach offers strong potential as an improved therapeutic option for OM.

IS-137 A CLINICORADIOLOGICAL STUDY OF CHRONIC OTITIS MEDIA AND ITS COMPLICATIONS WITH MANAGEMENT

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Background : Chronic otitis media (COM) is common in India and can cause permanent hearing loss and serious complications. With a rising trend over the past decade and a high burden in Assam, this prospective clinicoradiological study was undertaken.Aim : To assess demographics, clinicoradiological findings, and outcomes of extracranial and intracranial complications of COM. Methods : A 1-year prospective ENT study (March 2023-April 2024) included 949 patients ; 46 had complications. Follow-up was at 15 days and 1-3 months. Consecutive sampling and SPSS v16 analysis using Fisher's exact and paired t-tests ($p<0.05$) were done. Ethical approval and consent were obtained. Results : Complications occurred in 4.8%. Most patients were males aged 11-40 years (67%) with otorrhoea (94%). Mean disease duration was 3.7 years +/-41.37 days and mean air-bone gap 42.6 dB. Pseudomonas (39.1%) was commonest. Imaging : decreased pneumatisation (39.1%) ; mastoid abscess (54.3%) was the commonest complication. Cholesteatoma was seen in 75%, HRCT correlated well with surgery, 79% improved, and 11% recurred. Conclusion : HRCT and MRI reliably predict pathology and aid timely intervention.

IS-138 Correlation Between Otoendoscopic, Radiologic Features With Preoperative Pure-Tone Audiometry in Inactive Mucosal Chronic Suppurative Otitis Media

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Background : Chronic suppurative otitis media (CSOM) frequently causes hearing loss. The contributions of otoendoscopic findings, radiologic features, and clinical factors to hearing thresholds and the air-bone gap (ABG) remain heterogeneous.

Objective : To assess the associations of clinical factors, otoendoscopic examination, and HRCT findings with hearing thresholds and ABG in CSOM. Methods : A cross-sectional study of safe-type CSOM using secondary data from a previous study. Analyses included comparative tests according to data distribution and multivariable linear regression. Results : The size and location of tympanic membrane perforation was not significantly associated with hearing loss or ABG. Tympanosclerosis was associated with higher hearing thresholds ($p<0.001$) and a larger ABG ($p=0.002$). Middle-ear cavity opacification and sclerotic mastoid aeration were associated with poorer hearing thresholds ($p<0.001$). Recurrence ≥3 times/year was related to worse thresholds ($p<0.001$) and a wider ABG ($p<0.001$). Disease duration ≥ 5 years was associated with higher thresholds ($p<0.001$). Conclusion : In safe-type CSOM, middle-ear opacification, tympanosclerosis, recurrence, and disease duration are the main factors associated with hearing deterioration.

IS-139 Assessment of Bacterial and Fungal Contamination of Natural Raw Honey : A Case Study

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Background : Honey is beneficial for wound healing. Priyono et al. demonstrated that 100% manuka used in tympanoplasty increased complete tympanic membrane reepithelialization (fibroblast and keratinocyte) and trigona honey showed positive effect (in vitro). However, medical grade honey products limited in Indonesia. Objectives : Identify presence, quantity, and type of bacteria and fungi in Indonesian natural raw honey and manuka as potential candidates for Indonesian medical grade honey, particularly for ENT applications. Methods : A case study analyzed 28 natural raw honey samples. Bacterial and fungal contamination assessed using culture, bacterial counts by TPC, identification through blood agar, Brucella agar, Gram, and Vitek2. Fungal by slide culture and LPCB. Qualitative analysis describes the distribution of microbial contamination. Results : Bacteria detected in 27 (96.4%) with 1 negative result (3.57%). The highest aerobic and anaerobic bacteria count found in Apis cerana 4 and Apis dorsata 1. Most isolates were aerobic gram-positive, predominantly Bacillus cereus. Fungi found in 12 Indonesian samples, predominantly Aspergillus group. No yeast fungi were detected. Potential Candidates included 6 Indonesian and 4 manuka samples. Conclusion : Both Indonesian and New Zealand natural raw honey show bacterial and fungal contamination, mostly within food grade safety limit. Medical use of honey requires strict selection and processing to achieve medical-grade standards. Keywords : contamination, bacteria, honey mold, natural raw honey, manuka, medical grade honey

IS-140 Proportion and Risk Factors of Chronic Suppurative Otitis Media in HIV -infected Children in Papua

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Background : Chronic Suppurative Otitis Media (CSOM) is a significant and persistent global health issue, contributing to preventable hearing loss and serious complications, especially in pediatric populations. Children with immunocompromised conditions, such as those living with Human Immunodeficiency Virus (HIV), are at a substantially higher risk. Objective : To determine the proportion and associated factors of CSOM in children with HIV in Papua. Methods : This hospital-based cross-sectional study involved HIV-infected children aged 1-18 years. Data were collected through medical records and interviews. Bivariate and multivariate analyses were performed to identify contributing factors. Results : The proportion of CSOM among the study population was 55.6%. In the final multivariate model, three factors were identified as significant independent predictors : malnutrition (Adjusted Odds Ratio [aOR] 25.3 ; 95% Confidence Interval [CI] 1.7-368.7), prior diagnosis of Acute Otitis Media (AOM) (aOR 8.4 ; 95% CI 1.4-51.0), and high viral load (aOR 5.1 ; 95% CI 1.0-26.1). Conclusion : These findings emphasize integrated clinical management through nutritional optimization, early treatment of ear infections, and effective antiretroviral therapy.
Keywords : Chronic suppurative otitis media, HIV, children, proportion, associated factors

IS-141 Tubotympanoaero-dynamic graphy in Patulous Eustachian Tube : Inverse Phase and Spike Waveform

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Background : Tubotympanoaero-dynamic graphy (TTAG) is a reliable tool for diagnosing patulous Eustachian tube (PET), but certain waveforms like the inverse phase waveform (IPW) and spike synchronized waveform (SSW) lack clear clinical meaning. This study reviews TTAG patterns by comparing four waveform types with other diagnostic methods. Methods : Data from 374 ears were analyzed, classifying TTAG waveforms as Absent/Irregular, IPW, Synchronized or SSW. These groups were compared using PHI-10 scores, otoscopy, and sonotubometry. Results : The IPW group showed no significant difference from the Absent/Irregular group, indicating IPW is not a marker for PET. The SSW group had a significantly lower probe tone than Absent/Irregular, aligning with synchronized results. No significant differences were found between synchronized and SSW groups via logistic regression. Conclusion : IPW in TTAG should not be interpreted as PET-positive findings, whereas SSW can be considered objective indicators of PET. These results contribute to the standardization of waveform interpretation and more accurate diagnosis of PET in clinical practice.

IS-142 Local Large Language Model (LLM) Based Prediction of Vestibular Dysfunction

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Large language models (LLMs) based on the Transformer neural network architecture have advanced dramatically in recent years. Local LLMs, which operate entirely within healthcare facilities, are particularly valuable as they can process sensitive information while maintaining privacy. In this study, we investigated the use of local LLMs for predicting vestibular dysfunction.

We used data from Fujimoto et al. (Otol Neurotol. 2014), which included age, sex, height, stabilometry parameters, and vestibular disorder status. Three local LLMs (gpt-oss-120b, gpt-oss-20b, and Qwen3-30B-A3B) were employed for inference.

Prediction accuracy was 0.76 ± 0.14, 0.68 ± 0.04, and 0.68 ± 0.13, respectively, indicating a trend of improved performance with increased model size. Recall rates were 0.75 ± 0.14, 0.75 ± 0.14, and 0.71 ± 0.15, respectively, comparable to those of logistic regression models from our previous reports.

The interpretable thresholds and decision structures derivable from outputs suggest their potential utility for developing diagnostic flowcharts and determining diagnostic thresholds. Local LLMs show promise for clinical diagnostic support while ensuring medical data security.

IS-143 Vestibular implant stimulation improves mid- and high frequency VOR

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Bilateral vestibulopathy (BV) leads to deficient vestibulo-ocular reflex (VOR) responses and results in oscillopsia. Currently, no treatment is available. Vestibular neuroprostheses aim to restore VOR function by electrically stimulating the vestibular afferents. This study evaluated the effects of multiple motion-modulated vestibular implant stimulation paradigms on VOR function. BV patients were implanted with a multicanal vestibular implant providing stimulation to all semicircular canals. VOR function was assessed using rotatory chair and the video head impulse test (vHIT). Motion-modulated stimulation significantly improved VOR gain to functional levels. At high frequencies, vHIT gains increased significantly across all modulated conditions compared with no stimulation or baseline-only. Mid-frequency VOR gains measured with rotatory chair testing improved at the individual level in most responsive subjects. Motion-modulated vestibular stimulation using the VCI can restore mid- and high-frequency VOR function in BV. Acute PEV during fitting is a strong predictor of VOR restoration, supporting individualized stimulation strategies for optimizing clinical outcomes.

IS-144 Correlation between Subjective Visual Vertical and VEMP in Geriatric Subjects

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Introduction : Subjective Visual Vertical (SVV) and Vestibular Evoked Myogenic Potential (VEMP) examinations assess otolith organ function and are suitable for elderly patients because they can be performed in a sitting position. This study aimed to evaluate the correlation between SVV values obtained using the bucket method and oVEMP and cVEMP findings.
Methods : A cross-sectional study was conducted on 41 geriatric subjects without balance disorder complaints attending the geriatrics and neurotology clinics at Cipto Mangunkusumo Hospital, Jakarta. All subjects underwent SVV testing using the bucket method and VEMP examination with tone-burst stimuli at 95 dB and 100 dB.
Results : The median SVV value was 1.8° (0.8° —3.8°). Mean oVEMP latencies were 11.7 ± 2.6 ms (n1) and 16.5 ± 3.8 ms (p1). Mean cVEMP latencies were 16.4 ± 3.9 ms (p1) and 25.0 ± 4.2 ms (n1). SVV values correlated significantly with cVEMP asymmetry at 95 dB ($r = 0.310$; $p = 0.049$) and 100 dB ($r = 0.586$; $p = 0.001$), but not with oVEMP parameters.
Conclusion : SVV values measured using the bucket method correlated with cVEMP findings in geriatric subjects without balance complaints.
Keywords : subjective visual vertical ; vestibular evoked myogenic potential ; geriatric ; otolith ; balance

IS-145 Clinical Analysis of Perilymphatic Fistula Treated with TEES ; Assessment Using CTP value

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We clinically reviewed 27 Perilymphatic Fistula (PLF) patients who underwent fistula closure with transcanal endoscopic ear surgery (TEES). Based on the categorical classification of PLF, 3 cases were classified as Category 1, 1 case as Category 2, 5 cases as Category 3, and 18 cases as Category 4. Regarding cochlin-tomoprotein (CTP) results, 11 patients (41 %) were above the intermediate value, including 4 patients (14%) with intermediate value and 7 patients (26%) with positive, and 16 patients (59%) were negative. By category, the rate of patients above the intermediate value of CTP were 67% in Category 1, 0% in Category 2, 40% in Category 3, and 39% in Category 4. Notably, cases in Category 4 with no identifiable cause, 39% were above the intermediate value, suggesting that PLF may include idiopathic pathophysiology. Among patients with hearing loss, hearing improvement was observed in 41%, while 59% showed no change. Vertigo improved in 96% of symptomatic cases, with only 4% remaining unchanged. In cases with hearing improvement, the mean interval from symptom onset to surgery was 11 days suggesting that when PLF is clinically suspected, urgent surgery should be considered.

IS-146 Vertigo Control in Juvenile Delayed Endolymphatic Hydrops by Endolymphatic Sac Decompression

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Delayed endolymphatic hydrops (DEH) is characterized by recurrent vertigo following profound hearing loss. Surgical intervention may be considered when symptoms are refractory to conservative treatment. However, the optimal surgical strategy for juvenile patients remains controversial. We report an 11-year-old boy with congenital left-sided deafness who developed recurrent vertigo for one year. Medical treatment was ineffective, and the symptoms significantly impaired his daily life. Delayed gadolinium-enhanced 3D-FLAIR MRI demonstrated ipsilateral cochlear and vestibular hydrops, leading to a diagnosis of definite DEH. Considering the patient's age and the need to minimize irreversible inner ear damage, endolymphatic sac decompression was selected as a less invasive surgical option. Postoperatively, vertigo resolved completely without additional medication. This case suggests that endolymphatic sac surgery can be an effective and reasonable surgical option for juvenile DEH when conservative treatment fails and early symptom control is required.

IS-147 Cadaveric Study of the Deep Auricular Artery Entry Into the External Auditory Canal

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Abstract: Background: The deep auricular artery contributes to the vascular supply of the external auditory canal (EAC), yet its surgical topography is inconsistently described in standard references. Identifying its entry into the bony EAC may help anticipate bleeding during procedures involving the anterior canal wall. We aimed to describe the arterial course and a reproducible intraosseous entry route using cadaveric dissection.

Methods: Adult cadaveric temporal bones were dissected under microscopy. The deep auricular artery was traced from its branch from the maxillary artery toward the EAC. We documented its course, branching pattern, and relationship to recognizable EAC landmarks, focusing on the point where it enters the bony canal.

Results: The artery could be consistently followed toward the EAC. An osseous intraosseous entry route into the bony EAC was recognizable across specimens.

Conclusions: Cadaveric dissection clarified an under-described intraosseous route by which the deep auricular artery enters the EAC.

IS-148 Reconstructing the Burned Ear: Challenges in Managing a Giant Post-Burn Auricular Keloid

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Introduction: Auricular keloids are benign fibroproliferative lesions that usually follow trauma or surgery. Post-burn auricular keloids are rare, and giant lesions pose major reconstructive challenges because of the complex ear anatomy and high recurrence risk. Case Presentation: A 21-year-old male sustained a flame burn involving 14% of total body surface area and developed bilateral giant auricular keloids resistant to repeated intralesional steroid injections. The right ear was severely distorted by a multilobulated exophytic mass, while the left auricle was less extensively affected. A staged approach was performed using intralesional excision with preservation of auricular cartilage, combined with immediate and regular intralesional triamcinolone injections at two-month intervals. A second procedure was required for the right ear after one year. At three-year follow-up, both ears showed restored contour and pliability with no recurrence. Conclusion: Carefully planned multimodal treatment combining intralesional excision and sustained corticosteroid therapy can achieve durable functional and aesthetic outcomes in complex post-burn auricular keloids.

IS-149 Success Rate of Fistulectomy in Preauricular Fistula Patients at Cipto Mangunkusumo National General Hospital

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Background：Preauricular fistula, also known as preauricular sinus or pit, is a congenital malformation of the soft tissue characterized by a small depression near the external ear. The reported recurrence rate after fistulectomy ranges from 0–42 %, and data from Indonesia remain limited.Objective：This study aimed to determine the success rate of fistulectomy in patients with preauricular fistula, particularly those with recurrent infections, at Cipto Mangunkusumo National General Hospital (CMGH).Methods：A retrospective cohort study was conducted involving interviews, physical examinations, and photographic documentation of the ears. Preoperative clinical data were obtained from medical records. Patients who underwent fistulectomy between 2019 and 2024 were included. Results：Forty-two patients (48 ears) were analyzed. Recurrent infection occurred in 2 of 48 ears after surgery. Among 10 ears with a history of prior incision, recurrent infection developed in 2 ears, while no recurrence occurred in the remaining 8 ears ($p=0.04$). Of the 9 ears with preauricular-type fistula location, 2 experienced recurrence following fistulectomy ($p=0.032$). Conclusion：The success rate of fistulectomy at CMGH was 95.8%, with a recurrence rate of 4.2%. Prior incision history and fistula location were significantly associated with postoperative recurrent infection.

IS-150 Two Cases of Relapsing Polychondritis Confined to the Auricles

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Relapsing polychondritis (RP) is an inflammatory disease affecting the auricles, nose, and airway. Auricle-limited cases are generally considered to have a favorable prognosis, but their treatment response is not well characterized. We report two cases of RP confined to the auricles. Case 1 was a 76-year-old man and Case 2 a 54-year-old woman, each with several months of recurrent redness, swelling, and pain of both auricles. Neither showed other organ involvement, and both were diagnosed with auricle-limited RP based on auricular findings and biopsy. In Case 1, oral prednisolone induced rapid improvement and was tapered and discontinued without relapse. In Case 2, auricular lesions improved with prednisolone but relapsed during tapering；therefore, low-dose prednisolone was continued with methotrexate, after which no further relapse occurred. These cases suggest that even in auricle-limited RP, steroid responsiveness can differ, and that careful assessment of relapse and steroid dependence with appropriate use of immunosuppressive therapy is important.

IS-151 Anthropometric and Facial Analysis of Unilateral Microtia Patients at Dr. Cipto Mangunkusumo Hospital 2021－2025

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Background：Microtia is a congenital deformity of the external ear frequently associated with facial asymmetry due to malar and mandibular hypoplasia. Facial anthropometric evaluation is crucial for assessing the severity of deformities and planning reconstructive strategies. Objective：To analyze mandibular-malar anthropometric differences between the microtia and contralateral sides in unilateral microtia patients. Methods：This cross-sectional study involved unilateral microtia patients whose associated factors were recorded. Facial anthropometric measurements were performed using Rhinobase software and Adobe Photoshop. Statistical analyses compared the microtia and contralateral sides and examined associated factors.

Results：Most subjects were ≤18 years old, male, of normal nutritional status, with grade 3 microtia and right-sided involvement. All mandibular-malar parameters showed significant differences between the microtia and contralateral sides ($p<0.05$). Growth deficiency was evident from childhood and persisted into adulthood. In subjects with higher BMI, tragion-gnathion differences were not significant due to soft tissue effects. Patients with grade 2 microtia exhibited relatively better mandibular ramus height compared to those with grade 3.

Conclusion：Significant differences were found in facial anthropometric parameters between the microtia and contralateral sides. Routine facial measurements are essential to enhance the precision of auricular reconstruction and optimize surgical outcomes.

IS-152 Current Challenges and Surgical Strategies in Frontal Sinus Disease

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Frontal sinus surgery remains technically demanding due to complex anatomy and limited access to the frontal recess. Endoscopic management requires precise anatomical orientation and individualized surgical planning. This lecture reviews advanced endoscopic approaches to frontal sinus disease, focusing on key anatomical landmarks, frontal sinus drainage pathways, and the role of preoperative imaging.

Technical aspects of Draf II and Draf III procedures are discussed, including indications, extent of drilling, and strategies to optimize frontal sinus patency. Particular emphasis is placed on mucosal preservation, management of frontal cells, and prevention of postoperative restenosis. Challenges in revision surgery and methods to minimize complications are also addressed.

This presentation aims to provide practical, technique-oriented insights for improving surgical outcomes in complex frontal sinus disease.

IS-153 RCT of bioabsorbable steroid eluting stent in frontal sinus opening for endotype II bil. CRSwNP

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We recruited patients with CRSwNP with bilateral frontal sinusitis and performed bilateral FESS with bilateral frontal sinus surgery with same technique. One side of nasal cavity was randomly assigned to receive stent, thus the contralateral side would act as control. Patients were followed up post-operatively at 2nd, 4th and 12th week for endoscopic evaluation of frontal recess with regards to edema, discharge, and polyposis. The 12th week post-operative follow-up was blinded review by a Rhinologist. We found that the use of stent showed a trend of post-operative improved frontal patency of patients with CRSwNP who underwent bilateral FESS with frontal sinusotomy despite results not being statistically significant in our small sample size.

IS-154 Effectiveness of budesonide nasal spray in postoperative chronic rhinosinusitis with nasal polyps

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Chronic rhinosinusitis is a common medical problem in the world. Despite medical treatment, some patients underwent the surgical treatment such as endoscopic sinus surgery. Chronic rhinosinusitis with nasal polyps is the subtype which frequently requires surgical treatment and the postoperative care becomes the integral part. Intranasal corticosteroid such as nasal spray can be used to reduce postoperative complications, to reduce recurrence polyp and improve quality of life. This prospective comparative study was conducted in the ORL-HNS Specialist Hospital, Yangon, between 2017 and 2019. This study evaluated the effectiveness of budesonide nasal spray in postoperative care for chronic rhinosinusitis with nasal polyps. Forty-four patients were randomized into budesonide and control groups. Outcomes were measured using SNOT-22 and modified Lund-Kennedy scores at 1 week, 1 month, and 3 months. Both groups improved over time, but the budesonide group showed significantly greater improvement in symptom and endoscopic scores at 1 month and 3 months ($p<0.001$). The findings indicate that budesonide nasal spray provides superior postoperative recovery compared to standard care.

IS-155 Computed tomography analysis of the anterior ethmoid genu of the frontal recess.

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Objective : Safe endoscopic sinus surgery requires precise knowledge of frontal recess landmarks. This study validates the Anterior Ethmoid Genu (AEG) as a constant landmark to guide surgeons to the frontal sinus. Method : CT scans with multiplanar reconstruction of 102 non-diseased sinonasal complexes were analyzed. We assessed AEG prevalence, morphology, and its spatial relationship to the frontal sinus drainage pathway (FSDP). Results : The AEG was present in 100% of cases (102/102), independent of age, gender, or race. The FSDP was located medial to the AEG in 96.1% of cases. The AEG frequently extended laterally, forming a recess bounded by the lamina papyracea, uncinate process, and bulla ethmoidalis. The distance from the AEG to the frontal ostium correlated significantly with the height of the posterior wall of the agger nasi cell, rather than its volume. Conclusion : The AEG is a constant, reliable landmark within the FSDP. It defines the structural connection between the agger nasi, uncinate process, and bulla ethmoidalis. Identifying the AEG allows for safer, more predictable navigation toward the frontal ostium.

IS-156 CT-Based Stepwise Approach to the Sphenoidal Lateral Recess Minimizing Neurovascular Sacrifice

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Background The sphenoidal lateral recess (SLR) is challenging due to its location posterior to the pterygopalatine fossa (PPF). Conventional approaches often sacrifice surrounding neurovascular structures. We propose a three-step strategy to access the SLR by mobilizing the PPF without sacrifice : Step 1, medial pterygoid plate drilling ; Step 2, prelacrimal approach with suprapterygoid incision ; and Step 3, additional inferolateral periorbital periosteal line (ILPPL) incision. Methods We retrospectively reviewed 10 patients with SLR lesions. Preoperative background, CT-based lesion location, the surgical step required to obtain adequate exposure, and postoperative neurological symptoms were evaluated. Results Step 1 managed lesions inferior to the vidian canal (VC). Step 2 addressed lesions lateral to the VC but medial to the foramen rotundum (FR), while Step 3 was required for lesions lateral to the FR. No PPF neurovascular structures were sacrificed. Conclusion CT-based analysis demonstrated a clear correlation between lesion location and the required stepwise approach. Preoperative CT assessment may guide selection of minimally invasive approaches for SLR lesions.

IS-157 Full-House Functional Endoscopic Sinus Surgery in the Management of Atrophic Rhinitis : A Case Report

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Introduction : Atrophic rhinitis is a chronic nasal disorder characterized by mucosal atrophy, crusting, and impaired mucociliary clearance. Management includes conservative therapy and surgical intervention in refractory cases. Objective : To report full-house functional endoscopic sinus surgery as a surgical management option for atrophic rhinitis. Case Report : A 29-year-old woman presented with chronic nasal obstruction, foul-smelling discharge, and intermittent epistaxis, with only temporary response to medical therapy. Nasoendoscopy showed bilaterally wide nasal cavities, atrophic inferior and middle turbinates, mucopurulent secretions, and extensive crusting. She underwent full-house FESS followed by regular saline nasal irrigation, resulting in significant symptom improvement and clear nasal cavities on follow-up. Conclusion : Conservative treatment remains first-line therapy for atrophic rhinitis. In persistent cases, full-house FESS may improve sinonasal ventilation and mucociliary clearance, with postoperative nasal irrigation playing an essential adjunctive role. Keywords : Atrophic rhinitis ; Functional endoscopic sinus surgery ; Nasal irrigation

IS-158 The Use of Regional Flaps in Anterior Skull Base Reconstruction

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The reconstructive options for the anterior skull base (ASB) comprise a wide range of grafts, endonasal pedicled flaps, regional pedicled flaps, and free flaps, chosen according to the specific clinical situation. In the presence of extensive ASB defects, the use of a vascularized flap provides sufficient blood supply to the reconstructed area. Improved knowledge of the biological characteristics of sinonasal tumors, along with advances in therapeutic approaches and innovations in surgical techniques and technology, has led to an expansion of surgical indications for ASB tumors. Concurrently, the increasing complexity of defects requiring reconstruction has created a need for alternative solutions to address challenging reconstructions or to manage failure of primary reconstruction. Within this context, regional flaps, including the pericranial flap and the temporoparietal fascia flap (TPFF), have gained importance as alternative options when local or intranasal flaps are unavailable or insufficient.

IS-159 Minimally invasive Lateral Transorbital Surgery : Approaches to orbit, cavernous sinus and beyond

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Objective : This study evaluates the minimally invasive lateral transorbital technique for complex paramedian, orbital, temporal lobe, and skull base lesions. It demonstrates surgical nuances, including incisions, lateral orbital wall/sphenoid wing management, and potential complications. Methodology : A retrospective analysis of lateral transorbital surgeries from Jan 2023-Dec 2025. Data covered demographics, radiology, intraoperative records, bony corridor management, resection extent, and outcomes. Results : 30 patients underwent this approach for pathologies including meningioma (12), schwannoma (7), fibrous dysplasia (3) and others. Lateral Orbital Rim was mobilized (24) ; removed (3) or left in situ (3). Lesions extended into orbit, cavernous sinus, temporal lobe, middle and posterior fossa. Near-total resection was achieved in 22, subtotal in 22. Complications included eyelid edema, ptosis, chemosis, pseudo-meningocele and CSF leak. Conclusion : This low-impact minimally invasive approach is effective for complex skullbase pathologies alleviating craniotomies and their morbidities by providing satisfactory access, high removal rate, superior cosmetics, and better quality of life.

IS-160 Endoscopic Endonasal Transclival Transcondylar Approach for Foramen Magnum Tumor

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Endoscopic endonasal approach provides a direct ventral route for lesions/tumors in the foramen magnum (FM). In FM, endonasal access is restricted laterally by the occipital condyle and inferiorly by the occipital condyle anterior arch of C1 and odontoid process, which may necessitate partial resection. We reported a case with, Female, 46 years old with numbness followed paralysis of upper and lower extremities since 6 month, patient was diagnose with FM tumor. Endoscopy transcondylar-transclival approach was performed to reach the tumor. 'An extended vascularized nasoseptal flap was performed followed by a sphenoidotomy and posterior nasal septectomy. The maxillary crest was flattened to increase then extended nasopharyngectomy was performed. The inferior clivus was drilled down to the level of the FM followed by the medial condylectomy. The dural dissected, the tumor was debulked by using an ultrasonic device and the double suction technique. The defect was closed with fascia lata, then fat, fibrin glue and lastly a nasoseptal flap was attached. Postoperatively the patient in a stable condition, and the wound was good, the flap was viable, no cerebrospinal fluid leakage was found.

IS-161 Endoscopic resection of rare biphenotypic sinonasal sarcoma with anterior skull base involvement

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Introduction : Biphenotypic sinonasal sarcoma (BSNS) is a rare low-grade tumor, characterized by neural and myogenic differentiation. Owing to its rarity and recent characterization ; optimal management remains unknown and debated. This case report and literature review aims to discuss current treatment recommendations and controversies. Case : We report a case of BSNS in an asymptomatic 74 year-old Malay male, incidentally detected during nasendoscopy. Imaging showed anterior skull base and lateral lamella involvement with adjacent dural thickening. Key histological features include S100 staining, SOX10 negativity and PAX3-MAML fusion. He underwent endoscopic tumor excision with skull base reconstruction. No evidence of recurrence is noted thus far. Results/Discussion : Surgical resection remains the mainstay of treatment when amenable. The role of adjuvant therapy remains uncertain ; radiotherapy may be considered selectively in cases of positive or close margins but benefit remains unclear while no standardized recommendation exists for chemotherapy. Conclusion : Management should be guided by multidisciplinary discussion with an individualized approach.

IS-162 CT-Based 3D Analysis of the Foramen Ovale as an Anatomical Landmark for the Internal Carotid Artery

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In endoscopic endonasal surgery and infratemporal approaches, surgical manipulation is often performed near the internal carotid artery (ICA), making accurate anatomical orientation essential to prevent vascular injury. The external opening of the carotid canal, where the ICA enters the petrous bone, is a critical but surgically challenging landmark. This study aimed to evaluate the foramen ovale as an anatomical landmark by quantitatively analyzing its three-dimensional spatial relationship with the external opening of the carotid canal using high-resolution CT. Adult patients who underwent head CT at our institution were retrospectively analyzed. DICOM images with a slice thickness of 1.0 mm were evaluated using bone window settings. For each structure, the most caudal slice allowing circumferential delineation of the bony margin was selected, and the three-dimensional coordinates of the geometric center were obtained. Distances and spatial overlap between the two structures were calculated. Three-dimensional morphometric analysis of these bony landmarks may help estimate the ICA course and contribute to improved intraoperative safety.

IS-163 The Impact of Seasonal and Meteorological Factors on the Onset of Peripheral Facial Nerve Palsy

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Peripheral facial nerve palsy is a common disease in daily clinical practice. Its onset is thought to be related to multiple factors, including reactivation of herpes viruses and ischemic or edematous inflammation of the peripheral facial nerve. However, the exact mechanism remains unclear, and the influence of seasonal and meteorological factors has not been fully established. We retrospectively analyzed 477 patients who were hospitalized for peripheral facial nerve palsy at our center between April 2012 and March 2025. Meteorological data on daily mean temperature, atmospheric pressure, and sunshine duration were obtained from the Japan Meteorological Agency. Daily onset counts were analyzed using a Poisson regression model. Onset was more frequent in spring. More cases occurred at moderate temperatures. Onset tended to increase with higher atmospheric pressure, but this was not significant. In contrast, more cases occurred on days with shorter sunshine duration. These findings suggest that meteorological factors may influence the onset of facial nerve palsy.

IS-164 Objective Evaluation of Facial Nerve Function Using Software Processing

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Introduction : Facial nerve palsy significantly affects patients' quality of life, impairing facial expression, speech, and social interaction. Traditional grading systems such as House-Brackmann (HB) are subjective and may show interobserver variability, while objective assessment tools provide precise measurements but are less practical for routine clinical use. We aimed to develop an automated method combining objective facial measurement with clinically familiar grading to enable reliable and reproducible evaluation. Methods : In collaboration with the Department of Cybernetics, we developed software that analyzes standardized video recordings. The system detects 68 facial landmarks, quantifies facial movement symmetry and excursion, and generates a numerical score corresponding to the HB grade. Results : The software detected subtle reinnervation changes, enabled consistent analysis without manual preprocessing, and showed strong correlation with clinician-assigned HB grades. Conclusion : This approach bridges subjective and objective assessment, enables quantitative recovery tracking, supports remote follow-up, enhances rehabilitation feedback, and improves patient motivation.

IS-165 Body-coupling electrotherapy sutures for the treatment of facial nerve disorders

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Traumatic facial nerve repair remains clinically challenging due to the high functional specificity features, which routinely requires end-to-end neurorrhaphy, but outcomes remain suboptimal. Facial asymmetry, etc., highlights the need for strategies that actively regulate the regenerative microenvironment. Sutures are essential in facial nerve surgery, and emerging interfaces for bioelectronics. Previously, we reported a functional suture to facilitate wound healing (Nat. Commun., 2024, 15, 8462), but cannot be applied to nerves owing to the size limitations. Therefore, we further modified the technology and developed a body-coupled electrotherapy suture (BESS), enabling the facial nerve regeneration without imported power. BESS restored CMAP amplitudes and NCV to 87.10% and 84.97% of healthy levels, whereas commercial sutures achieved only 57.76% and 67.67%, demonstrating high expression of nerve growth-related factors, synapse and myelin formation. BESS also reduced muscle atrophy, preserved fiber integrity, and protected relevant brainstem nuclei and target muscle function. This promising nerve repair strategy offers an innovative solution for facial nerve injury treatment.

IS-166 Effect of Nerve Sheath Incision on Facial Function in Transmastoid Facial Nerve Decompression

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Objective

The necessity of nerve sheath incision during facial nerve decompression remains controversial. This study evaluated whether sheath incision influences postoperative facial function and synkinesis in transmastoid decompression.

Methods

We retrospectively analyzed 32 patients with severe facial palsy (Bell's palsy or Hunt syndrome) who underwent transmastoid decompression. Patients were classified into two groups : Incision group (bony decompression plus sheath incision, n = 13) and Preservation group (bony decompression only, n = 19). Preoperative severity was comparable between groups. Postoperative outcomes were assessed using the Yanagihara score and Sunnybrook Facial Grading System (SB).

Results

No significant differences were observed in postoperative Yanagihara scores or SB composite scores between the two groups. Similarly, SB synkinesis sub-scores showed no significant difference.

Conclusion

Sheath incision did not confer superior prognostic benefit compared with bony decompression alone. Considering potential surgical risks, sheath incision may not be necessary if adequate bony decompression is achieved.

IS-167 Surgical Modifications in Facial Nerve Decompression to Minimize Postoperative Hearing Deterioration

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Objectives: Facial nerve decompression may result in postoperative hearing loss. This study evaluated whether surgical modifications could reduce conductive and sensorineural deterioration.

Methods: We retrospectively reviewed 112 patients who underwent transmastoid facial nerve decompression between 2002 and 2024. The short process of the incus was drilled off in 103 cases, and drill speed was limited to 10, 000 rpm around the geniculate ganglion in 70 cases. Hearing outcomes were analyzed by comparing air-conduction changes with and without short-process drilling, and bone-conduction changes with and without drill-speed limitation. Thresholds were based on AAO-HNS guidelines.

Results: Air-conduction deterioration was smaller with short-process drilling (3 dB) than without (12 dB). Bone-conduction deterioration at 4, 000 Hz occurred only in cases without drill-speed limitation.

Conclusions: Short-process removal reduces postoperative conductive deterioration, and limiting drill speed prevents sensorineural loss. These technical modifications may reduce hearing deterioration following facial nerve decompression.

IS-168 A case of a 30-cm wire esophageal foreign body extending from extra-pharyngeal space to mediastinum

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A 56-year-old male presented after accidentally ingesting a 30-cm wire. Computed tomography (CT) and upper gastrointestinal endoscopy revealed that the middle portion of the wire remained within the esophageal lumen, while the cranial end extended into the extra-pharyngeal space and the caudal end reached the mediastinum. Laryngeal edema worsened on the second day that needed surgical intervention. Repeated CT just before surgery confirmed no migration of the foreign body. To secure the airway and reduce the risk of migration by intubation, tracheostomy was performed under local anesthesia. The foreign body was subsequently removed safely by a transcervical approach. No postoperative complications, including deep neck infection and mediastinitis, were observed, and the patient was discharged on day 13. Extra-pharyngeal foreign bodies are rare but potentially fatal because they may easily migrate with swallowing or neck rotation, leading to deep neck infection or mediastinitis. This case highlights the educational importance of repeated CT-based evaluation to confirm the precise location of the foreign body and early surgical intervention when mediastinal extension is present.

IS-169 MANAGEMENT OF UPPER AERODIGESTIVE TRACT FOREIGN BODIES: A SINGLE-INSTITUTION FIVE-YEAR STUDY

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Foreign body (FB) ingestion in the aerodigestive tract remains one of the most common surgical emergencies, with the potential for life-threatening complications. This retrospective descriptive study reviewed all patients admitted at the Philippine General Hospital between July 2019-July 2024 under Otolaryngology-Head and Neck Surgery, Pediatric Gastroenterology, and Adult Gastroenterology for aerodigestive tract foreign bodies. Demographic, clinical, imaging, procedural, and outcome data were analyzed. A total of 428 patients were included. Data revealed a mean age of 19. 9 years (62. 1% pediatric), with coins most common in children and dentures/food in adults. The esophagus was the primary site (54%). Rigid esophagoscopy (38%) was the most frequent intervention. Analysis showed delayed presentation and high-risk objects like dentures or button batteries increased serious complications (pneumonia, perforation). However, 87. 6% had no major issues, with mortality under 1%. The data underscores that timely imaging and endoscopic intervention yield excellent outcomes, emphasizing the need for early referral, prevention, and sustained training.

IS-170 Tracheobronchial Foreign Body Removal in Surabaya, Indonesia : a 5-year retrospective study

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Background : Foreign body aspiration is a potentially life-threatening condition, but In Indonesia, data of tracheobronchial foreign body removal is limited. Aim : To review the management of tracheobronchial foreign bodies removal in Surabaya. Methods : We analyzed medical records from Dr. Soetomo General Academic Hospital. 137 patients who underwent tracheobronchial foreign body removal during 2021– 2025 were included. Results : Most patients were female (81.7%), aged 10–15 years, and originated 1–3 hours travel to the hospital. The interval from aspiration to admission was ＜24 hours in 58.3% cases, and surgery was performed ＜24 hours of admission in 72.9% cases, and most commonly finished in ＜20 minutes. Pin needles were the most common (75.9%), rigid bronchoscopy with rigid and flexible forceps were used in almost all cases, achieving a success rate of 98.5%. Minimal mucosal lesion being the most common complication (17.5%), while two patients required an external approach. Conclusion : Rigid bronchoscopy was an effective and safe approach for tracheobronchial foreign body removal in Surabaya, with favorable outcomes associated with early presentation and prompt intervention.

IS-171 Review of aerodigestive tract foreign bodies in RSCM by LOS, impaction time, MOCHI classification and complications

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Background : Foreign bodies in the tracheobronchial and esophageal tract require prompt management to prevent complications. Objective : To analyze the association between length of hospital stay and duration of impaction, MOCHI classification, and complications in patients treated at RSCM. Methods : A retrospective observational study of 235 patients who underwent foreign body extraction in the tracheobronchial and esophageal tract at RSCM from 2019 to 2024. Chi-square and Odds Ratio (OR) were used for analysis. Results : Most patients were children (68.5%) and male (58.3%). The most common location was the esophagus (88.5%) with blunt non-organic objects (55.7%). Impaction ＞3 days was significantly associated with prolonged hospitalization (OR＝5.333 ; p＜0.001). Complications increased the risk of hospitalization ＞3 days (OR＝27.045 ; p＜0.001). MOCHI classification showed no significant association with hospital stay (p＝0.357). Conclusion : Early diagnosis and prompt extraction are crucial to reduce complications and hospital stay duration.

Keywords : Foreign body, esophagus, tracheobronchial, complications, hospital stay, MOCHI

IS-172 Retrospective evaluation of Fine-needle aspiration cytology of neck nodule

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Method : We retrospectively review 450 cases who underwent fine needle aspiration cytology (FNAC) for the purpose of neck tumor diagnosis between December 2024 and November 2025. The size of targeted tumor ranged from five to 100 mm. There were 173 cases underwent FNAC on lymph node, 156 cases on thyroid gland, 71 cases on parotid gland and 25 cases on submandibular gland. In present study we investigated the sensitivity, specificity, accuracy and insufficient material rate of FNAC. Results : The sensitivity, specificity, accuracy and insufficient material rate of FNAC, in differentiating benign from malignant lesions in total population was 74%, 100%, 81%, 16%. The rate of insufficient material was relatively lower (10%) in case of lymph node aspiration than the others. The false negative rate of FNAC on salivary gland was relatively high (36%). Conclusion : High insufficient material rate and false negative rate might confuse treatment strategy. The collection of sufficient material is important for head and neck surgeon to achieve appropriate treatment of neck tumor.

IS-173 Therapy-Related AML in 126,653 Head and Neck Cancer Survivors : A population-based analysis

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Background : Therapy-related acute myeloid leukemia (t-AML) is a critical complication of cytotoxic therapy. With the rise of treatment de-escalation for head and neck cancers (HNC), the determinants of t-AML risk remain unclear. Methods : We analyzed a cohort of 126,653 HNC survivors (2000 to 2022), stratified by age (below 60 vs. above 60). Fine-Gray competing risks regression calculated sub-distribution hazard ratios (SHR) for t-AML, adjusting for treatment, demographics, and subsite, while strictly accounting for mortality. Results : Younger patients (below 60) received more chemotherapy (49% vs 37%) and radiation (66% vs 57%) than older patients (above 60 ; p below 0.001). However, despite lower toxic exposure, older patients had significantly higher t-AML incidence (p above 0.001). Multivariably, age above 60 was the dominant predictor (SHR 2.02, 95% CI 1.40 to 2.91), surpassing chemotherapy (SHR 1.55) and male sex (SHR 1.95). Radiation showed no increased risk (SHR 0.58). Subsite had no effect. Conclusions : t-AML risk in HNC survivors is driven more by age and sex than treatment intensity. Surveillance focused solely on heavily treated patients may overlook at-risk individuals.

IS-174 Combined Compartmental Maxillary Resection : Technique Codification and Multicenter Series Analysis

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Oral and maxillary cancers extending to deep craniofacial spaces represent a challenging scenarios. The integration of compartmental surgery principles with combined endoscopic approaches allows optimization of deep margin control. A retrospective analysis was conducted on 35 patients treated between 2014 and 2024 across 4 referral centers using the Combined Compartmental Maxillary Resection (CCMR) technique. The procedure was classified as type 1, 2, or 3 based on topographic extent. Infratemporal infiltration was absent in 41.4% of cases, partial in 27.6%, and massive in 31.0%. The distribution by resection type was : CCMR 1 27.6%, CCMR 2 41.4%, and CCMR 3 31.0%. The overall rate of negative surgical margins was 75.9%. One-year overall survival (OS) and disease-free survival (DFS) were 86.5% and 81.5%, respectively. Posterior and medial margin control proved reliable even in cases with ITF invasion. The CCMR represents a reproducible strategy ensuring en bloc resections and survival outcomes comparable to major international series. The design of the procedure promotes an optimal balance between surgical radicality and functional preservation.

IS-175 Endoscopic Versus Open Surgery for Anterior Skull Base Tumors: Systematic Review and Framework

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Anterior skull base tumors (ASBTs) require individualized surgical strategies balancing extent of resection against morbidity. This systematic review synthesizes 60 studies (1981–2022) from major databases, conducted according to PRISMA guidelines. ASBTs include meningiomas, about one-third of cases (incidence 2 per 100, 000; grade-dependent recurrence 5%–80%), and predominantly secretory pituitary adenomas (97% microadenomas, 70% macroadenomas). Other tumors are craniopharyngiomas (0. 1 per 100, 000; >80% suprasellar), glomus tumors (1–3 per million; female predominance 6: 1), chordomas and chondrosarcomas (0. 08 per 100, 000), esthesioneuroblastomas (2%–3% of intranasal neoplasms), and skull base metastases in ~4% of cancer patients. Common complications are anosmia (10%–20%), cerebrospinal fluid leakage (10%), visual disturbances, and bleeding (5%–10%). The endoscopic endonasal approach shows bacterial meningitis rates of 0%–0. 69%, with infrequent venous thromboembolism and pneumocephalus under careful management, whereas open approaches, despite higher morbidity, provide superior exposure for laterally extensive, massive, or complex vascular tumors and remain essential.

IS-176 When Carcinoma Wears a Sarcoma Mask: Decoding Laryngeal Sarcomatoid Cancer; Clinicopathologic Profile, Immunohistochemical Pitfalls, and Organ-Preserving Outcomes in a 10-Year Single-Institution Glottic-Predominant Series

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Background: Sarcomatoid/spindle cell carcinoma (SpCC) of the larynx is a rare biphasic variant of squamous cell carcinoma (SCC), with an epithelial squamous component admixed with spindle-cell proliferation mimicking sarcoma. Contemporary outcome data in the organ-preservation era remain limited.

Methods: 13 patients with histologically & immunohistochemically confirmed laryngeal sarcomatoid carcinoma were retrospectively analyzed. Demographic, clinical, histopathological, immunohistochemical, treatment & follow-up variables were extracted from a prospectively maintained database at a laryngology-focused tertiary referral center over 10 years (2015–2025) & summarized using descriptive statistics.

Results: 11/13 (84. 6%) cases were males, 9/13 (69. 2%) smokers, with mean age of 59. 92 ± 10. 642 years. Laryngeal SpCC were predominantly glottic (11/13, 84. 6%), mean size 1. 33 ± 0. 99 cm; T1 stage (12/13, 92. 3%) at diagnosis. Histologically, tumors had conventional SCC component with variable spindle patterns; CK, Vimentin, AE1/AE3, p63/p40 positivity in a subset, while lineage-specific mesenchymal markers (Desmin, SMA, S-100, Myogenin) were negative. These tumors were treated with endoscopic excision (12/13, 92. 3%) and adjuvant radiotherapy in 6/13 (46. 2%) cases, achieving an organ-preservation rate of 84. 6% (11/13). At a mean follow-up of 26. 9 months, local control (LC) rate of 76. 9% (10/13), 3-year overall and disease-specific survival (OS/DSS) were 84. 6%, and 3-year disease-free survival (DFS) was 69%.

Conclusion: Glottic T1 laryngeal SpCC shows outcomes comparable to conventional SCC with endoscopic excision and selective adjuvant RT, supporting larynx-preserving management.

IS-177 Neoadjuvant and Adjuvant Pembrolizumab＋SOC for Resectable LA HNSCC : Asian Subgroup of KEYNOTE-689

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Background : Neo(adjuvant) pembro＋SOC significantly improved EFS vs SOC in pts with resectable LA HNSCC in the phase 3 KEYNOTE-689 trial (NCT03765918). We report results from pts enrolled in Asia. Methods : Adults with newly diagnosed resectable SCC were randomized 1 : 1 to neoadjuvant pembro＋adjuvant pembro＋SOC (surgery＋adjuvant RT± cisplatin) or SOC alone. Primary end point was EFS per RECIST v1. 1 by BICR in pts with PD-L1 CPS ≥10, PD-L1 CPS ≥ 1, and all pts. Results : 87 pts were randomized in Asia (n＝48, pembro ; n＝39, SOC). Median follow-up was 38.9 mo (range, 9. 7-64. 5). In PD-L1 CPS ≥10, median EFS was NR with pembro and 51. 5 mo with SOC (HR 0. 45, 95% CI, 0. 2-1. 4). In PD-L1 CPS ≥1, median EFS was NR with pembro and 51. 5 mo with SOC (HR 0. 86, 95% CI, 0. 4-1. 8). Median EFS in all pts was NR with pembro and 51. 5 mo with SOC (HR 0. 95, 95% CI, 0. 5-1. 9). Grade ≥3 TRAEs occurred in 51 % and 42% of pts in the pembro and SOC groups, respectively. Conclusions : In the Asian subgroup of KEYNOTE-689, EFS results were generally consistent with the primary analysis. Safety was in line with the global population. Results should be interpreted with caution due to small sample size.

IS-178 Anatomical Variations of the Sinonasal and Skull Base Regions in Patients with GHoma

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Objectives : Growth hormone-secreting pituitary adenomas (GHoma) induce skeletal alterations via excessive GH secretion. This study investigated anatomical variations in the sinonasal and skull base regions, specifically Haller cells, concha bullosa, sphenoid sinus morphology, and vascular pathways, in GHoma patients to optimize surgical planning. Methods : We reviewed 28 GHoma and 104 non-GHoma PitNET patients. Preoperative CT scans were used to evaluate : 1) Haller cells and concha bullosa ; 2) sphenoid sinus classification ; and 3) "floating" anterior and posterior ethmoidal arteries (AEA, PEA). Results : No significant differences were found regarding Haller cells, concha bullosa, or sphenoid sinus types. However, a "floating" AEA was significantly more frequent in the GHoma group. This suggests GH excess promotes frontal sinus expansion and increased pneumatization, causing the AEA to displace from the skull base. Conclusions : GHoma patients have a significantly higher prevalence of floating AEA. In endoscopic skull base surgery (ESS) for GHoma, precise preoperative planning and careful AEA management are essential for surgical safety.

IS-179 Ectopic Pituitary Neuroendocrine Tumour Presenting as Incidental Sphenoid Sinus Opacification

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Ectopic pituitary neuroendocrine tumours (PitNETs) arising in the sphenoid sinus are rare. We report a case of an asymptomatic 68-year-old Chinese female referred for incidental sphenoid sinus opacification on CT brain. Dedicated CT and MRI of the paranasal sinuses showed thinning and erosion of the sphenoid sinus walls with endosteal scalloping of the clivus, raising concern for a neoplasm. During bilateral functional endoscopic sinus surgery, a friable right sphenoid sinus mass was identified with dehiscence of the sphenoid floor, while the sellar floor remained intact. Initial histopathology suggested a grade 1 neuroendocrine tumour. Further immunohistochemical evaluation with pituitary hormone staining and lineage-specific transcription factors demonstrated positivity for steroidogenic factor-1 (SF-1) and follicle-stimulating hormone (FSH), confirming the diagnosis of an ectopic PitNET. This case highlights the importance of a broad differential diagnosis for isolated sphenoid sinus disease and the critical role of pituitary-specific immunohistochemistry in establishing an accurate diagnosis with implications for management and follow-up

IS-180 Middle Turbinate Grafts for Septal Reconstruction After Nasoseptal Flap Harvest

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The nasoseptal flap (NSF) has become a preferred method for skull base reconstruction following the endoscopic endonasal approach (EEA), yet the resulting septal donor site often requires an extended duration for secondary healing. This retrospective study (2015-2023) evaluated the efficacy of utilizing free middle turbinate (MT) mucosal grafts to accelerate healing and reduce postoperative morbidity in patients with sellar and parasellar lesions. Of 104 patients, 99 received free MT mucosal grafting at the denuded septal donor site. Results demonstrated that the average duration for MT graft group to achieve complete mucosalization was 38.7 days, significantly different from 59.6 days observed in the non-graft group ($p < 0.0001$). Furthermore, at the three-month follow-up, 34% of grafted patients were free of nasal crusting, compared to 20% in the control group. These findings suggest that free MT mucosal grafting is a promising technique to enhance mucosalization and minimize crusting at the NSF donor site, ultimately improving recovery outcomes in EEA procedures.

IS-181 Mycotic Intracranial Aneurysm Rupture After Endoscopic Endonasal Transsphenoidal Surgery

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Mycotic intracranial aneurysms (MIAs) are rare infection-related arterial dilatations associated with a high risk of rupture. Endoscopic endonasal transsphenoidal surgery (EEA) is the standard approach for sellar lesions, with known complications including cerebrospinal fluid (CSF) leakage, hemorrhage, pituitary dysfunction, and optic nerve injury. We report a rare and fatal case of MIA rupture following EEA. A 54-year-old woman presented with progressive bitemporal hemianopia due to a pituitary macroadenoma and underwent EEA. An intraoperative CSF leak was repaired using multilayer reconstruction. Two weeks later, a recurrent CSF leak occurred and was successfully repaired without evidence of meningitis. One week after the second surgery, the patient suddenly collapsed. Imaging revealed a ruptured basilar artery MIA. Emergency coil embolization was performed, but the patient died. MIA rupture after EEA is extremely rare but devastating. Early recognition and intervention before rupture are critical.

IS-182 Intracranial Extension of JNA: Patterns of Involvement With a Proposed Algorithm for Their Management

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The aim of this study was to discuss the characteristics of intracranial extension in JNA and propose and algorithm for its management. A retrospective chart review of all patients operated with JNA between January 2013 and January 2023 was done and those cases with intracranial extension belonging to stage IIIb, IVa and IVb according to the Andrews's modification of Fisch classification were included in the study. Out of 142 patients who underwent surgery for JNA there were 40 (28.2%) cases with intracranial involvement. Parasellar involvement via the superior orbital fissure was the most frequent route of intracranial spread. All patients underwent surgery and most common approach was endoscope assisted midface degloving. A total of 4 patients underwent craniotomy with endoscope assisted transfacial approach. This study concluded that JNA with extradural intracranial extension, in most cases can be completely excised with endoscopic or endoscope assisted trans-facial approach but tumour with intracranial intradural extension requires tailored craniotomy along with transfacial approach which can be done in single sitting or as a staged surgery.

IS-183 β-catenin expression as a strong predictor of recurrence in juvenile angiofibroma

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Background: Juvenile angiofibroma (JA) is a rare fibrovascular tumor predominantly affecting adolescent males. Although histologically benign, it exhibits aggressive clinical behavior with considerable morbidity and a high recurrence rate. β-catenin has been implicated in JA tumorigenesis; however, its role in predicting recurrence remains unclear.

Objective: To evaluate the association between β-catenin expression and recurrence in JA.

Method: An analytical observational case-control study was conducted at Cipto Mangunkusumo Hospital, analyzing 33 JA patients who underwent tumor excision (2013-2022). Patients without recurrence were controls, while those with recurrence were cases. Immunohistochemistry and H-scoring quantified β-catenin expression, and statistical analysis examined its association with recurrence. ROC curves determined cut-off values.

Results: All patients were male, with a mean age of 16.2 years (range: 9-28); 15 experienced recurrence. High β-catenin expression was significantly associated with recurrence ($p<0.001$), with an optimal H-score cut-off of 124.2 demonstrating 100% sensitivity and specificity. Age ≤18 years was also associated with increased recurrence risk (OR 8.9; $p<0.05$). Other clinical and surgical variables showed no significant correlation.

Conclusion: Elevated β-catenin expression is a strong predictor of JA recurrence and may serve as a valuable prognostic marker and potential therapeutic target.

Keywords: juvenile angiofibroma, recurrence, beta catenin expression, predictor

IS-184 Lymphoepithelial Carcinoma of the Head and Neck in an EBV-Endemic Region: A Case Series

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Lymphoepithelial carcinoma (LEC) of the head and neck is a rare carcinoma with dense, non-neoplastic lymphoplasmacytic infiltration, frequently associated with Epstein-Barr virus (EBV). It most commonly arises in the salivary glands but may also occur in other head and neck sites. Histologically, LEC is similar to nasopharyngeal carcinoma (NPC), posing a diagnostic challenge in EBV-endemic regions where both entities coexist. We present five cases of LEC diagnosed at our institution in an endemic region. Four originated from the salivary glands, and one from the middle ear. All cases demonstrated characteristic histomorphological appearance and immunohistochemical profile of LEC, with EBV association. Clinical and histological evaluation of the nasopharynx was essential to exclude primary NPC. This series highlights the variable anatomic distribution of LEC and the importance of distinguishing it from NPC, particularly in endemic populations. Recognition of atypical presentations, such as middle ear involvement, is crucial for accurate diagnosis and appropriate management.

IS-185 Aesthetic facial reconstruction

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Facial reconstruction is one of the most challenging fields in facial plastic and reconstructive surgery. Facial reconstructive surgery is not just closing the defect. But, you will have to consider disease control, functionality, and aesthetic appearance. There are many ways to do aesthetic facial reconstruction. Basic knowledge of facial reconstruction is very important. Nowadays new advanced technology e.g. 3D-printing, patient-specific implant (PSI), and celled-seed scaffold is widely used. The rapid evolution and development of new technologies for facial reconstruction will create favorable outcomes in the future.

IS-186 Accuracy of 24-hour preoperative surgeon-performed ultrasound in HNSCC neck dissection surgery

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Background: Accurate preoperative assessment of cervical node metastasis is essential for neck dissection extent in head and neck squamous cell carcinoma (HNSCC). 24-h preoperative surgeon-performed ultrasound provides real-time imaging that can guide decision making, however, evidence of its diagnostic performance is limited. Methods: This diagnostic test study included pathologically confirmed HNSCC patients hospitalized for neck dissection. All patients underwent 24-h preoperative surgeon-performed ultrasound. Lymph nodes were evaluated by level using predefined criteria. Ultrasound were compared with gold standard histopathology. Diagnostic parameters were analyzed and compared with routine preoperative evaluation. Results: 24-h Surgeon-performed ultrasound showed sensitivity of 83.3% (58.6-96.4%), specificity of 88.3% (79.0-94.5%). The AUC was 0.8582, significantly higher than routine preoperative evaluation (AUC 0.6591) $p = 0.0061$. Conclusion: 24-hour preoperative surgeon-performed ultrasound significantly improves diagnostic accuracy for detecting cervical lymph node metastasis in HNSCC and may optimize the extent of neck dissection.

IS-187 Flaps at Dusk: Does Operating After-Hours Compromise Head and Neck Reconstruction Outcomes?

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Introduction: While head and neck reconstruction is critical for malignancy treatment, the impact of operating outside normal hours on surgical outcomes remains understudied. This study aims to determine if after-hours surgery correlates with increased flap-related complications. Methods: A retrospective analysis was conducted on 900 patients undergoing elective flap surgery between 2020 and 2024. Surgeries starting between 4:00pm and 7:00am were defined as "after-hours". Primary outcomes including flap loss and re-exploration, were compared against daytime procedures. Results: Of the cohort, 473 patients underwent after-hours surgery, while 427 were treated during the day. The after-hours group had a significantly higher complication rate (11.6% vs 7.4%; $\chi^2 = 3.93$, $p = 0.047$). Multivariate regression analysis showed no significant patient predictors for after-hours scheduling: Haemoglobin ($p = 0.80$), Serum Albumin ($p = 0.15$), Comorbidity ($p = 0.23$) and Advanced stage ($p = 0.36$). Conclusion: After-hours flap surgeries are associated with significantly higher postoperative complications. Optimizing surgical scheduling and resource allocation is essential to improve outcomes in head and neck reconstruction.

IS-188 Mapping the hidden corridor -Understanding Pterygopalatine fossa on imaging and it's significance

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Introduction-The pterygopalatine fossa PPF is a small fat filled space in the deep face forming an important neurovascular junction. It's multiple communications make it a key route for spread of tumors and infections. This study reviews the imaging anatomy of the PPF and demonstrates its involvement in selected head and neck diseases. Materials and Methods-cases with radiologically proven PPF involvement were reviewed nasopharyngeal carcinoma with perineural spread juvenile nasopharyngeal angiofibroma with vascular extension and rhino orbito cerebral mucormycosis with invasive spread. Contrast enhanced CT and MRI were evaluated for anatomy and disease pathways. Results-The normal PPF appears as a symmetrical fat attenuation space on CT and hyperintense fat on T1 and T2 MRI. Pathological involvement shows loss of fat soft tissue enhancement foraminal widening or bone erosion. MRI better demonstrated perineural and soft tissue invasion while CT showed osseous changes. Conclusion-Understanding PPF anatomy and imaging appearance is essential for accurate diagnosis. Combined CT and MRI allow early detection of disease spread and improved management.

IS-189 Understanding immune responses in head and neck tumors using novel metabolic MRI techniques

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The treatment of immune checkpoint inhibitors (ICIs) for head and neck squamous cell carcinoma (HNSCC) will expand to the neoadjuvant setting based on the Keynote-689 trial. This shift is likely to increase the demand for imaging techniques that can accurately capture tumor immune responses at an early stage. Conventional radiologic criteria based on morphological assessment may be insufficient, particularly during the early treatment phase, when pseudoprogression or immune cell infiltration can obscure accurate assessment of therapeutic response. To address these limitations, this presentation focuses on the potential utility of novel MRI techniques that enable non-invasive assessment of tumor metabolic activity. We present findings from both clinical HNSCC cases and preclinical mouse models exhibiting ICI-sensitive and ICI-resistant phenotypes. These data illustrate how metabolic MRI can visualize dynamic changes in the tumor immune microenvironment that are not detectable with standard imaging. By integrating clinical and experimental evidence, we aim to highlight the potential of advanced metabolic MRI as an emerging modality for assessing immunotherapy response.

IS-190 Clinical analysis of HPV-positive oropharyngeal squamous cell cancer according to HPV type

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Incidence of human papillomavirus(HPV) related oropharyngeal squamous cell carcinoma(OPSCC) is increasing, with HPV-16 accounting for most cases. However, studies of non-HPV-16 genotypes are limited, particularly in Asian populations. Our study evaluated HPV genotype distribution and survival outcomes in a single-institution cohort. We retrospectively reviewed OPSCC patients treated at SNUBH (2003-2023). Clinical data, imaging, and pathologic results (p16 IHC, HPV DNA test) were analyzed. Survival outcomes were assessed via Kaplan-Meier log-rank tests. Among 254 OPSCC patients, 177 were HPV+. Of 174 genotyped cases, HPV-16 was most prevalent (n=130), with non-HPV-16 genotypes accounting for 25%. Both groups showed male predominance. HPV-16 patients were younger with better performance status. Staging (AJCC 8th ed.) was similar between groups, though HPV-33 cases had higher nodal stage. DFS did not differ by genotype, but OS varied significantly, with HPV-35 and other high-risk genotypes showing worse OS than HPV-16. Non-HPV-16 genotypes represent a notable subset of HPV+ OPSCC with variable survival outcomes, supporting the need for 9-valent, gender-neutral HPV vaccination.

IS-191 Immune Profiling of Orthotopic vs. Subcutaneous HPV-positive Oropharyngeal Cancer Models

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Reliable preclinical models are crucial for evaluating novel therapies. However, how well tumor-bearing murine models represent the immunology of human papillomavirus (HPV)-positive oropharyngeal squamous cell carcinoma (OPSCC) remains unclear. Using single-cell RNA sequencing, we found that subcutaneous (SC) models more closely mirror the early immunogenic phase of human HPV-positive OPSCC, characterized by a stage-dependent increase in effector T cell infiltration. In contrast, orthotopic (base of tongue, BOT) tumors showed a progressive loss of cytotoxic T cells and an accumulation of myeloid-derived suppressive cells, mirroring the immune desertification seen in advanced human tumors. Drug response analysis suggested that early-stage BOT models better replicate responses to PD1 blockade, while late-stage SC models more accurately reflect responses to CTLA4 blockade, aligning with human data. Our study provides key insights for selecting murine models in preclinical immunotherapy assessment for HPV-positive OPSCC.

IS-192 A novel staging system for human papillomavirus-associated oropharyngeal squamous cell carcinoma

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Human papillomavirus-associated oropharyngeal squamous cell carcinoma (HPV OPSCC) has distinct features compared with non-HPV OPSCC, particularly its favorable prognosis. Using the Surveillance Epidemiology and End Results (SEER) Research Plus Data, we assessed the prognostic performance of staging systems and explored potential improvements. Among 35, 095 OPSCC cases, 12, 490 met the inclusion criteria. Locoregional disease was classified as follows : I, T 0-2/N0-2b ; II, T0-2/N2c-3 ; III, T3 ; IVA, T4a ; and IVB, T4b. Distant metastasis was defined as IVC.

Survival curves based on the TNM 7th edition showed overlap among stages I-IVA, indicating limited discriminatory ability. In contrast, the TNM 8th edition and our proposed system demonstrated clearer separation of worsening survival at higher stages. Cox proportional hazards analyses further showed that the TNM 7th edition failed to stratify risk, whereas the TNM 8th edition and our system were significant predictors of overall survival. Our system also had the lowest AIC, indicating a superior model fit.

These results suggest that our staging system may provide improved prognostic discrimination compared with the TNM 8th edition.

IS-193 Prognostic Significance of NK Cell Infiltration in Hypopharyngeal SCC : Utility of ICS

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NK cell infiltration is associated with favorable prognosis in many solid cancers, but evidence in hypopharyngeal squamous cell carcinoma remains limited. This study evaluated the prognostic value of peritumoral NK infiltration and validated an immunopathological composite score (ICS) integrating NK cells, CD8+ T cells, extranodal extension (ENE), and pathological stage (pStage). Ninety two surgically treated patients (2013 to 2018) were analyzed. The NK index was quantified by CD56 immunostaining and classified into high or low using the median cutoff. ICS was calculated by assigning 0 or 1 point to each variable. The NK-high group showed better overall survival (OS) and disease free survival (DFS) than the NK-low group (OS $p = 0.0102$, DFS $p = 0.018$). ICS stratified cases into Low (0-1, $n = 27$), Intermediate (2, $n = 23$), and High (3-4, $n = 42$), with stepwise survival improvement. As a continuous variable, each 1 point increase in ICS reduced mortality by 36% (HR 0.64). ICS showed the highest predictive accuracy (OS C-index 0.656, DFS 0.624), exceeding pStage and NK alone. In conclusion, NK infiltration appears prognostically relevant, and ICS may provide more accurate stratification.

IS-194 Clinical Significance of Preoperative Colonoscopy in Patients with Advanced Hypopharyngeal Cancer

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[Background] Patients with hypopharyngeal cancer frequently present with synchronous malignancies such as esophageal cancer. In esophageal cancer, synchronous colorectal cancer is also relatively common. At our institution, preoperative colonoscopy is routinely performed before extended resection for advanced hypopharyngeal cancer. This study aimed to evaluate the clinical significance of this practice. [Methods] We retrospectively reviewed patients with advanced hypopharyngeal cancer who underwent preoperative colonoscopy between September 2013 and December 2024. [Results] A total of 71 patients with hypopharyngeal cancer underwent preoperative colonoscopy. Colorectal tumors were detected in 25 patients (35.3%), including 6 cases of colorectal cancer (8.5%). Notably, 4 of the 6 colorectal cancers (66.7%) were not detected on PET-CT. Clinical characteristics were compared between patients with and without colorectal lesions. [Conclusions] Preoperative colonoscopy identified a notable number of synchronous colorectal cancers in advanced hypopharyngeal cancer, indicating that colorectal cancer should be recognized as a potential synchronous malignancy in this population.

IS-195 Survival Outcomes and Prognostic Factors in Synchronous Hypopharyngeal and Esophageal Cancer

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[Objectives] To investigate survival outcomes and prognostic factors in patients with synchronous hypopharyngeal (Hypo) and esophageal (ESO) cancer, specifically analyzing the impact of ESO stage and surgical intervention. [Methods] A cohort study of 798 patients (2018-2022) was conducted. Patients were stratified into Group A (Early ESO) and Group B (Advanced ESO). Survival and prognostic factors were analyzed using univariate and multivariate models. [Results] ESO stage was the strongest predictor of overall survival (OS, $p<0.0001$). In Group A, ESO surgery provided significant survival benefit ($p=0.002$), while Hypo surgery showed a borderline effect ($p=0.02$). In Group B, ESO surgery remained beneficial ($p=0.007$); Hypo surgery showed no significant OS difference ($p=0.92$) but provided DSS benefit. Advanced ESO stage dominated prognosis. Key factors for poor survival included BMI <18.5, ECOG ≥ 2, and cT3-4 stages. [Conclusions] ESO stage is the primary survival driver in synchronous cases. Meticulous staging and aggressive esophageal surgery are critical for improving patient prognosis.

IS-196 A rare case of parathyroid carcinoma

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Parathyroid carcinoma is a rare malignancy, representing less than 1% of hyperparathyroidism cases. Its rarity, subtle presentation, and clinical overlap with benign parathyroid disease often result in diagnostic challenges. We report a 53-year-old female who presented with PTH-dependent hypercalcemia and right neck swelling. Ultrasonography, sestamibi parathyroid scan and 4D-CT revealed an extrathyroidal nodule suggestive of a parathyroid adenoma. Patient subsequently underwent excision of the suspected parathyroid adenoma. Intraoperatively, the tumour was found to involve the right thyroid and thus, a right hemithyroidectomy was also done. Histology returned as a parathyroid carcinoma. This case illustrates how malignant disease can mimic benign pathology, emphasizing the need for integrated multimodal imaging and sustained clinical suspicion for early diagnosis. Given the limited evidence guiding postoperative surveillance and long-term management, coordinated care among otolaryngologists, endocrinologists, radiologists and oncologists remains essential for optimal patient outcomes.

IS-197 Impact of Parathyroidectomy on Cardiac Structure and Function in Primary Hyperparathyroidism

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Background : Primary hyperparathyroidism (PHPT) is characterized by excessive parathormone secretion leading to hypercalcemia and multisystem involvement, including cardiovascular dysfunction. We tried evaluating the structural and functional cardiac changes in PHPT which may be reversible after parathyroidectomy. Methods : The prospective observational study included patients undergoing parathyroidectomy (July 2021–August 2022). Biochemical parameters (serum calcium, intact PTH, NT–proBNP) and echocardiographic indices including left ventricular mass index (LVMI), left ventricular ejection fraction (LVEF), posterior wall thickness, E/A ratio,and isovolumetric relaxation time were assessed preoperatively and at three months postoperatively. Results : The cohort (N = 16) consisted 81% females with a mean age of 43 years. Significant postoperative reductions were observed in serum calcium, intact PTH, LVMI, and posterior wall thickness,with a significant improvement in LVEF. Diastolic function parameters showed no significant change. Conclusion : Parathyroidectomy results in significant improvement in cardiac structure and systolic function in PHPT, while diastolic recovery may require longer follow–up.

IS-198 Mini–Incision Parathyroidectomy Under Regional Anesthesia : Surgical Tips and Results.

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Subtotal parathyroidectomy is usually performed under general anesthesia. To decrease hospital stay and cost, new methods were initiated. Objective : To demonstrate the surgical technique and to evaluate postoperative outcomes and hospital costs. Methods : A retrospective descriptive study was performed in a tertiary care hospital. The hospital's ethical committee approved this study. All cases that were scheduled for regional parathyroidectomy by the first author were recruited. Results : Of 11 patients in the study period, 8 patients (6 males, 2 females) fulfilled the inclusion criteria. Age ranged 29–73 (45. 13 ± 13. 57) years. Operative time ranged from 60 to 160 (108. 13 ± 30. 30) minutes. Operative cost ranged from 14, 829 to 16, 547 (15, 597. 50 ± 648. 53) THB. Intraoperative pain, assessed with the Visual Analog Scale, ranged from 0 to 2. Hospital stay was 3–4 days. Surgical technique was reported with successful outcomes. Conclusions : Open mini–Incision subtotal parathyroidectomy under regional anesthesia is a safe and effective alternative technique with decreased hospital stay, cost, and complications.

IS-199 Safety and Efficacy of Video Endoscopic Parathyroidectomy : A Cross–Sectional Observational Study

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This study evaluated short–term clinical and biochemical outcomes of minimally invasive parathyroidectomy (MIP) for primary hyperparathyroidism (PHPT), focusing on the safety and efficacy of endoscopic and robotic approaches. A cross–sectional analysis of 23 patients operated between October 2022 and January 2024 was performed ; 20 (86. 9%) underwent remote–access minimally invasive procedures. Preoperative localization with sestamibi and ultrasound most often identified the left inferior gland. Median baseline serum calcium and PTH were 12. 0 mg/dL and 261 IU/mL. Sixteen patients had endoscopic and four robotic procedures, with a median of one gland excised. Median intraoperative PTH reduction was 89. 38 %. Complications included two Clavien–Dindo Grade II events and one transient recurrent laryngeal nerve paresis ; three patients required conversion to open surgery for intraoperative bleeding. There were no mortalities or recurrences during follow–up. Minimally invasive parathyroidectomy using endoscopic and robotic techniques appears safe and effective for PHPT, with excellent biochemical control and acceptable complication rates.

IS-200 Endoscopic Detection of Near-infrared Autofluorescence in the Parathyroid Glands

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Preservation of the parathyroid glands during thyroid surgery is crucial to prevent postoperative hypocalcemia. Parathyroid glands exhibit intrinsic autofluorescence with an emission peak around 820 nm and near-infrared imaging has been applied for their intraoperative identification. However, its role in endoscopic thyroid surgery remains unclear. We report on two cases in which near-infrared imaging revealed parathyroid autofluorescence during video-assisted neck surgery (VANS). The first patient was an 82-year-old woman with papillary thyroid carcinoma. We performed right thyroid lobectomy by VANS. A parathyroid gland on the posterior thyroid surface showed homogeneous and strong autofluorescence. The second patient was a 53-year-old woman with primary hyperparathyroidism. A parathyroid tumor showing heterogeneous and relatively weak autofluorescence was identified on the posterior aspect of the right thyroid lobe. In both cases, observation was facilitated by the use of a monitor with enhanced contrast and brightness. These findings suggest that parathyroid autofluorescence can be visualized even during endoscopic thyroid surgery and may contribute to safer procedures.

IS-201 An Uncommon Darkness: Melanoma Arising in the Paranasal Sinuses

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Madam S is a 71-year-old Malay woman presented with 3 months history of intermittent left-sided epistaxis associated with persistent unilateral nasal discharge and nasal blockage. Rigid 0-degree nasoendoscopy revealed a large brownish mass occupying the entire left nasal cavity without extension to the contralateral side. Histopathological examination of a nasal biopsy confirmed mucosal melanoma with positive immunohistochemical staining for SOX10 and HMB45. Contrast-enhanced CT of the brain, neck, thorax, and pelvis demonstrated locally advanced disease with no evidence of distant metastasis at initial staging. The patient underwent left upper eyelid conjunctival biopsy by the ophthalmology team, left open partial (infrastructure) maxillectomy, left modified radical neck dissection, right selective neck dissection, and placement of an upper surgical obturator plate via bilateral circumzygomatic wiring by the OMFS team. Postoperatively, she was referred to oncology and received adjuvant chemoradiotherapy but showed poor response, with subsequent local recurrence and distant metastases confirmed on endoscopy and CT imaging. Currently, she is enrolled in immunotherapy trial.

IS-202 Management of Carotid Body Tumors: A Retrospective Multicenter Study

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This study examines the characteristics, diagnosis, and management of carotid body tumors (CBT) in patients at 3 institutions in the UAE. We included patients diagnosed with CBT between January 2010 and December 2023, assessing demographics, symptoms, investigations, interventions, pathology, and clinical outcomes. 12 patients (58.3% women) with a median age of 51.5 years were evaluated. The most common symptom was a painless neck mass (83.3%). Tumors were located on the right side in 8 patients (66.6%). Contrast-enhanced CT was the primary imaging modality for 11 patients. The median tumor size was 4.6 cm; 33.3% were Shamblin Class I, 50% Class II, and 16.6% Class III. 7 patients underwent surgery, and 5 chose non-surgical treatment; preoperative embolization was performed in 2 cases. All operated tumors were confirmed as paragangliomas. No deaths or recurrences occurred, but complications were observed in 3 patients. While CBTs are rare and challenging to treat, positive outcomes are possible with careful planning. Active surveillance may be appropriate for selected patients, and future studies should focus on individualized risk assessment for treatment decisions.

IS-203 A Case Report on Vagal Schwannoma and its Diagnostic and Therapeutic Dilemma

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Objective : To present a rare case of Vagal Schwannoma in the local setting, describe its clinical manifestations, the diagnostic challenges, and complications which may arise after surgical excision. This paper aims to recommend multidisciplinary approach and management for its inevitable post-operative complications. Design : A case report regarding a patient who was diagnosed with a rare disease of Vagal Schwannoma and its diagnostic and therapeutic dilemma. Setting : Tertiary Private Hospital. Patient : The patient is a 34-year-old female who presented with a right lateral neck mass with intermittent non-productive coughing episodes. Upon clinical examination, ancillary procedures, and open biopsy, the patient was diagnosed as a case of Vagal Schwannoma. Intervention : She underwent Excision of the Vagal Schwannoma with a histopathologic diagnosis revealing Schwannoma. Postoperatively, she presented with ipsilateral vocal cord paralysis. Keywords : Vagal Schwannoma, Vagus Nerve, Vocal Cord Paralysis, Multidisciplinary Approach, Laryngologist, Speech-Language Pathologist, Spindle Cell Tumor, S-100

IS-204 A Case of a Giant Lipoma Occupying the Retropharyngeal Space

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Background : Retropharyngeal lipoma (RPL) is an extremely rare benign tumor that may enlarge significantly before symptoms appear because of the potential distensibility of the retropharyngeal space. We report a case of giant RPL and review previously reported giant cases. Case presentation : A 55-year-old male presented with progressive dysphagia, mild dyspnea, anterior neck swelling, and worsening snoring. Endoscopy showed submucosal bulging of the posterior pharyngeal wall. CT and MRI revealed a large, well-circumscribed, fat-density retropharyngeal mass, measuring 140 mm in maximum diameter and compressing the pharyngolarynx, trachea, and esophagus. Transcervical resection with prophylactic tracheostomy was performed, and histopathology confirmed the diagnosis of lipoma. The postoperative course was favorable with resolution of all preoperative symptoms. Discussion : This case suggested the importance of recognizing giant RPL in patients with gradually worsening dysphagia. Our literature review demonstrated increased symptom multiplicity and more frequent use of the transcervical approach in giant RPLs, in which perioperative airway and nutrition management should be individualized.

IS-205 Torticollis and Lateral Neck Surgery : A Fatal Tangle?

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Wry neck, or torticollis, is commonly seen in paediatrics and may persist into adulthood. Its impact on lateral neck surgery is under-recognised despite important perioperative implications. We describe a case of a patient with congenital muscular torticollis undergoing total thyroidectomy, emphasising key pre-operative considerations and optimisation. Untreated, restricted cervical extension can complicate airway management and limit optimal positioning. Chronic sternocleidomastoid contracture may rotate the laryngeal framework ipsilaterally and create asymmetric strap musculature, limiting access to the carotid gutter. These anatomical distortions can hinder thyroid exposure, displace the course of the laryngeal nerves, and alter thyroid vascular relationships. Mitigative approachea such as physiotherapy, positioning aids, and peri-operative muscle relaxants or benzodiazepines. Adjunctive options include pre-operative botulinum toxin injections, with sternocleidomastoid division reserved for refractory cases. Surgeons should integrate its presence and severity into pre-operative planning and adopt strategies to optimise access and reduce potential complications.

IS-206 Pediatric Skull Base Surgery : Challenges, Multidisciplinary Strategies and Early Outcomes

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Pediatric skull base surgery represents a demanding frontier, requiring precise technique and coordinated multidisciplinary care. This observational case series evaluates the challenges and outcomes in eleven pediatric patients, from newborn to 17 years, managed for diverse skull base pathologies. The cohort included brain abscess, optic nerve compression, traumatic cerebrospinal fluid leak, orbital infection, functioning pituitary adenoma, and benign tumors or cysts. Each case underwent individualized planning, with a spectrum of endoscopic, open, and combined approaches selected according to pathology, anatomy, and age-specific considerations. Management was conducted in a multidisciplinary format. Key challenges included narrow corridors in small children, distorted anatomy from infection or trauma, and balancing radicality with long-term growth and development. This experience supports the feasibility and safety of specialized multidisciplinary pediatric skull base surgery and underscores the importance of early diagnosis, detailed imaging-based planning, and tailored surgical strategy.

IS-207 Clinical analysis of 9 cases of Actinomycosis in head and neck region

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Background : Actinomycosis is a chronic suppurative granulomatous disease caused by Actinomyces species, often mimicking malignant tumors. We analyzed 9 cases of head and neck actinomycosis.

Subjects : Nine patients treated for actinomycosis at our hospital between September 2015 and September 2025 were reviewed.

Results : Ages ranged from 45 to 89 years (6 males, 3 females). Six cases were diagnosed by histopathological examination. Actinomyces species were identified by culture in 4 cases. All patients received antibiotics ; 7 underwent surgical intervention. The median antibiotic duration was 3 months (range : 2 days-4 months).

Conclusion : The culture sensitivity for Actinomyces is low, making histopathological examination crucial. The culture-positive rate was 44% (4/9) ; however, proactive histopathological evaluation facilitated definitive diagnosis. Effective treatment requires long-term antibiotics combined with surgery. While the median treatment duration was 3 months, the optimal duration warrants further study.

IS-208 Clinical Features of Central Skull Base Osteomyelitis Unassociated with Malignant Otitis Externa

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Skull base osteomyelitis (SBO) is classically recognized as a complication of malignant otitis externa in elderly patients with diabetes mellitus. In contrast, central skull base osteomyelitis (CSBO) represents an atypical clinical entity characterized by destructive inflammatory lesions of the central skull base without preceding malignant otitis externa or external auditory canal involvement. To clarify the clinical characteristics of CSBO, we retrospectively reviewed cases treated in our department. Six patients with skull base osteomyelitis admitted between 2016 and 2025 were included. All patients presented with severe headache, and cranial nerve palsies developed in four patients. Despite intensive management, two patients died during hospitalization. CSBO is a difficult disease to diagnose and treat and associated with a poor prognosis. Even in patients presenting with only mild serous otitis media, clinicians should maintain a high index of suspicion when severe headache or cranial neuropathies are present. We report the clinical characteristics of CSBO with a review of the relevant literature.

IS-209 Prevalence and Clinical Significance of Candida auris in Otology : A Korean Single-Center Study

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Candida auris is an emerging pathogenic yeast of increasing global concern. This study aimed to explore recent epidemiological trends in C. auris at a single center and evaluate its impact on otologic surgery outcomes. An epidemiological review was conducted for patients with positive fungal culture results between January 2018 and December 2023. Medical records of patients with C. auris were retrospectively analyzed, focusing on surgical outcomes and comparing them with those of patients infected with other fungi. Of 3,430 fungal cultures from ear discharge, C. auris was identified in 104 cases (3.0 %). Among 89 patients with C. auris isolated from ear discharge, 53 (59.6%) had mixed infections, with Staphylococcus species being the most common co-pathogen. Of 207 patients with fungal infections who underwent otologic surgery, 39 had C. auris. The postoperative complication rate was significantly higher in the C. auris group (34.2%) compared to those with other fungal infections (16.1%) (P=0.011). Enhanced vigilance and proactive management by otolaryngologists are crucial to minimize nosocomial transmission and improving surgical outcomes.

IS-210 Evaluating Resolution Criteria and Recurrence Risk in Skull Base Osteomyelitis

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Background : Skull base osteomyelitis (SBO), or necrotizing otitis externa, requires prolonged antimicrobial therapy, yet no consensus exists regarding criteria for antibiotic cessation. Clinical findings, laboratory markers, and imaging can help guide clinical decisions, though their prognostic value for recurrence remains unclear. Methods : The electronic record was queried for all patients with lateral SBO who presented to a single institution over a 16-year period (2007-2023). Resolution criteria included exam findings, symptom status, erythrocyte sedimentation rate (ESR), and imaging (CT/ MRI). Results : Forty patients (41 ears) were included (mean age 73.4±13.2 years) ; 82.5% were male. Mean antibiotic duration was 60.1±36 days. Using Fisher's Exact test and univariate logistic regression, no significant association was observed between recurrence and individual resolution criteria or a threshold of ≥3 criteria met. Conclusion : Commonly used clinical, laboratory, and imaging criteria were not associated with recurrence following treatment for SBO, highlighting limitations of current resolution metrics and the need for standardized criteria to guide antibiotic cessation.

IS-211 DISSEMINATED TUBERCULOSIS WITH TEMPORAL BONE EXTENSION- A RARE CASE PRESENTATION

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Introduction : Disseminated tuberculosis involves infection at two or more non-contiguous sites by *Mycobacterium tuberculosis*. Tuberculous otitis media (TOM) is rare, accounting for 0.04% of chronic suppurative otitis media cases, and its nonspecific features often delay diagnosis. Case Report : A 12-year-old female presented with prolonged cough, cervical swelling, and persistent left otalgia with otorrhea. Examination revealed House-Brackmann grade V facial nerve palsy and granulation tissue in the external auditory canal. Acid-fast bacilli were detected, and histopathology confirmed granulomatous inflammation. Chest imaging showed a large thoracic cystic mass with mediastinal lymphadenopathy. HRCT of the temporal bone demonstrated soft tissue with erosion of the middle ear, mastoid, and facial nerve canal. She was treated with anti-tuberculosis therapy for one year, achieving recovery. Discussion : TOM is difficult to diagnose due to overlapping features with bacterial otitis media and secondary infections. Conclusion : TOM should be considered in suspected pulmonary tuberculosis patients presenting with otologic symptoms.

IS-212 Bacterial Profile and Antibiotic Susceptibility in Pediatric Otitis Media : A Cross-Sectional Study

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Background : Otitis media (OM) is a common childhood infection. Acute pathogens include Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis, while chronic cases often involve Pseudomonas aeruginosa and Staphylococcus aureus. Microbiological identification is essential for effective treatment. Methods : Cross-sectional study was conducted at two centers with 143 pediatric patients. Dacron swabs were used for pathogen culture and antibiotic susceptibility testing. The study was conducted at Universiti Kebangsaan Malaysia and Hospital Tengku Ampuan Rahimah, Klang Valley. Results : Staphylococcus aureus (34%) and Pseudomonas aeruginosa (28%) were the most common pathogens. In chronic OM, Pseudomonas aeruginosa predominated (88.5%). Both pathogens showed good sensitivity to ofloxacin and ciprofloxacin, with sensitivity rates of 84%-94%. Conclusion : Staphylococcus aureus and Pseudomonas aeruginosa are prevalent in pediatric OM and are sensitive to ofloxacin and ciprofloxacin, making them effective first- and second-line treatments.

IS-213 Withdrawn

IS-214 Withdrawn

IS-215 RABIT-Singular minimally invasive approach to perform all thyroid surgeries-Single institute study

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Abstract : Minimally invasive approaches for thyroid surgery have specific limitations in exposure and applicability. We describe the RABIT (Retraction-Assisted Bilateral Integrated Technique), a singular minimally invasive approach enabling all thyroid procedures through one access. A prospective series (2018-2025) of 168 cases was analyzed, including 21 hemithyroidectomies, 81 total thyroidectomies, 8 Sistrunk procedures, 35 neck dissections, and 2 retrosternal goitres (RABIT + RATS). CUSUM analysis identified a learning breakpoint at 32 cases, defining three phases : initial (1-8), transition (9-32), and proficiency (>32). Operative outcomes were non-inferior to open surgery, with no major complications or permanent nerve injuries. Cosmetic satisfaction and recovery were uniformly excellent. RABIT is a safe, reproducible, and versatile technique representing a transformative advancement in thyroid surgery.

IS-216 Spectrum of Metastatic Pathways of Endometrial Cancer Presenting in the Thyroid : A Case Report

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Objective : To report a rare case of thyroid metastasis from primary endometrial carcinoma in a 63-year-old female. Patient : A 63-year-old G3P3 female presented with dysphonia and an anterior neck mass, with a 15-month history of postmenopausal bleeding and hypogastric pain. Delayed evaluation led to a diagnosis of endometrioid carcinoma after manual vacuum aspiration. She underwent exploratory hysterectomy with bilateral salpingo-oophorectomy and surgical staging on January 19, 2024, but did not complete adjuvant chemoradiation and was lost to follow-up. Results : Physical examination revealed bilateral 2×2 cm neck masses. Flexible nasopharyngolaryngoscopy showed vocal cord paresis. Contrast-enhanced neck CT demonstrated an enlarged, heterogeneously enhancing thyroid with nodules. The patient underwent direct laryngoscopy, incision biopsy with frozen section, and tracheostomy. Histopathology showed malignant round cells with necrosis involving thyroid tissue, lymphovascular and perineural invasion, and metastatic lymph nodes with extranodal extension. Immunohistochemistry was positive for PAX8, ER, and Napsin, confirming thyroid metastasis from endometrial carcinoma.

IS-217 Clinical and Genetic Predictors for Radioactive Iodine Refractory Differentiated Thyroid Cancer

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Background/Objectives : Total thyroidectomy followed by radioactive iodine (RAI) therapy is standard for advanced thyroid cancer, but therapeutic response varies widely. Because only a limited number of facilities in Japan can provide RAI therapy, early prediction of refractoriness may help clinicians promptly switch to molecular targeted therapy. Methods : Forty-three patients who underwent total thyroidectomy between 2015 and 2024 and subsequently received RAI therapy were analyzed. Fifty samples from primary or metastatic lesions were collected. DNA was extracted from FFPE specimens using laser microdissection, and genetic alterations were analyzed by next-generation sequencing. Genomic data were integrated with clinical findings to assess associations with RAI response. Results : Two samples had insufficient DNA quality and two had inadequate sequencing coverage, leaving 46 evaluable samples. Mutations in BRAF, TERT promoter, and MUC 16 were detected in more than half of the cases. Conclusions : Genomic profiling may still help support individualized treatment strategies, including consideration of molecular targeted therapy in thyroid cancer.

IS-218 Tumor and Immune Characteristics in *TERT* Promoter Mutant Thyroid Cancer

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The link between malignancy and immune evasion is established in many cancers but remains unclear in thyroid cancer. We investigated *TERT* promoter mutations in papillary thyroid cancer and their association with malignancy and the immune microenvironment using in silico analysis and 14-marker multiplex immunostaining. CIBERSORT analysis of TCGA RNAseq data (mutation n = 36, wild-type n = 447) showed significantly fewer $CD8^+$ T cells in the mutation group. GSEA indicated upregulation of β-catenin-related pathways, suggesting an immunosuppressive environment. Multiplex immunostaining of *TERT*-mutant (n = 4) and wild-type (n = 3) metastatic cases revealed lower intratumoral $CD8^+$ T cell density and closer proximity of exhausted $CD8^+$ ($CD39^+$) T cells to tumor cells in mutants. Visium HD spatial transcriptomics in one *TERT*-mutant case supported these findings, highlighting immune traits linked to aggressiveness and potential therapeutic vulnerabilities.

IS-219 Efficacy of tympanic membrane regeneration therapy for secondary cholesteatoma

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Objective : To investigate the effectiveness of tympanic membrane regeneration therapy (TMRT) for secondary cholesteatoma (SC)

Patients : The study included 38 patients with SC (41 ears in 38 cases, M/F : 21/17, 12-86 y.o.) who underwent TMRT, and 33 patients with 33 ears (M/F : 15/18, 20-75 y.o.) who underwent conventional tympanoplasty (CTP).

Interventions : In TMRT, after remaining all of the residual TM, leaving the tympanic ring intact, the cholesteatoma is completely removed. For the TM repair procedure, the edge of the TMP was disrupted mechanically, and gelatin sponge immersed in bFGF were placed inside and outside the tympanic cavity and covered with fibrin glue.

Results : The operative time, TM closure rate, and cholesteatoma recurrence rate were 65minutes, 100% (41/41), and 2.4% (1/41) in the TMRT group, respectively, and 125minutes, 93.9% (31/33), and 9.1% (3/33) in the CTP group, respectively. Average hearing improvement was 12.2dB in the TMRT group and 7.5dB in the CTP group.

Conclusions : TMRT showed no difference in TM closure rate/cholesteatoma recurrence rate compared to CTP but was superior to CTP in terms of operative time and hearing improvement.

IS-220 Examination of Regeneration of the tympanic membrane for elderly patients

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The tympanic membrane is inherently a tissue with robust regenerative capacity. Tympanic membrane regeneration therapy enables regeneration by providing an optimal environment that maximizes this intrinsic self-healing mechanism. In general, younger patients who possess stronger regenerative potential show higher success rates, whereas in older adults, even with the same intervention, the likelihood of successful regeneration may be lower.

In this study, to address these questions, we investigated whether the success rate of tympanic membrane regeneration in elderly patients is indeed lower and whether a greater number of treatment sessions is required.

Older adults typically have multiple comorbidities and tend to be on numerous medications. In addition, due to underlying conditions, they are sometimes unsuitable candidates for lengthy procedures or surgeries requiring general anesthesia. For these reasons, in order to meet the needs of elderly patients, we report on how to establish an optimal environment for tympanic membrane regeneration and how best to proceed with the therapy in this population.

IS-221 Tympanic Membrane Regeneration Therapy in pediatric patients

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It is known that the rate of chronic perforation after tympanostomy tube placement is higher in children than in adults, and that such post-tube perforations are also accompanied by marked calcification. In graft-based tympanoplasty or myringoplasty, wide removal of calcified tissue reduces the supporting area and increases the risk of residual or recurrent perforation. In contrast, Tympanic Membrane Regeneration Therapy (TMRT) regards calcification as pathological tissue that must be removed. We conducted a retrospective review of 43 pediatric patients (50 ears) who underwent TMRT. Tube-related perforations were more common than in adults, and extensive calcification was frequently observed. In many cases, calcified areas were broadly excised during surgery. Despite the resulting intraoperative enlargement of perforations, postoperative closure rates were favorable. Hearing outcomes showed significant improvements. In TMRT in pediatric patients, it is important not only to achieve a favorable closure rate but also to minimize postoperative recurrence of otitis media. We also discuss the perioperative management strategies we have been working on.

IS-222 Long-term outcomes of Regenerative treatment for Tympanic Membrane Perforation (TMP).

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Objective : Regenerative treatment for tympanic membrane perforation (RT-TMP) has rapidly recognized in Japan. To accumulate supporting data for this procedure, we report the rate of TMP closure and the long-term hearing outcomes in 130 ears underwent RT-TMP. Materials and methods : The study population included 130 ears of 122 patients treated with RT-TMP, from May 2020 to April 2025. Specifically, repeated surgeries were performed on 6 ears. Hearing outcomes and TMP closure were assessed more than one year after the last surgery. Logistic regression analysis was performed to identify predictive factors for persistent perforation. Results : Postoperative observation showed complete closure of the TMP remained in 113 of the 130 ears (87%). Both air-conduction hearing thresholds and air-bone gaps demonstrated significant improvements except the higher frequency, consistent with our preliminary report (Am J Otolaryngol, 2024). In addition exposure of the bony annulus and the timing of surgery were two factors associated with the persistence of TMP. Conclusions : Our findings offer important long-term outcome data that help clarify the position of RT-TMP within contemporary TMP management.

IS-223 Factors Associated With Successful Closure After Initial Tympanic Membrane Regenerative Therapy

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Background : Tympanic membrane (TM) perforation causes conductive hearing loss. Regenerative therapy using basic fibroblast growth factor is minimally invasive and widely adopted ; however, successful closure after a single treatment remains limited. This study aimed to clarify factors associated with TM closure after the initial regenerative procedure. Methods : We retrospectively reviewed 41 patients who underwent TM regenerative therapy. TM closure was evaluated one month after the first treatment, and failure to close after a single procedure was defined as unsuccessful. Results : Closure after a single procedure was achieved in 22 of 41 ears. Fisher's exact test demonstrated a significant association between the place of surgery and successful closure. In Firth's logistic regression analysis, procedures performed in the operating room were significantly associated with a higher likelihood of closure compared with those performed in the outpatient room. Conclusions : Procedures in the operating room were associated with a higher initial closure rate. This benefit may reflect not only endoscopic manipulation but also advantages of the operating room environment.

IS-224 OTOLens : Deep Learning-Based Mobile Application for Assessing Middle Ear and Tympanic Membrane

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Background : Middle ear and tympanic membrane (TM) diseases are frequently misdiagnosed in primary care due to anatomical complexity. AI-driven mobile tools offer scalable solutions for early detection and intervention. Objectives : To develop and validate OTOLens, a deep learning-based mobile application for automated assessment of TM and middle ear pathology. Methods : This prospective cross-sectional study used 1, 011 clinical images to train a deep learning model classifying : Normal TM, Otitis Media with Effusion (OME), TM Perforation (TMP), and Myringitis. Otologists validated the system through real-world clinical testing to assess diagnostic accuracy and practical usability. Results : Training accuracy reached 58-81%. In real-world validation, OTOLens achieved 53% overall accuracy, demonstrating high sensitivity for TMP (86. 7%), followed by OME (48. 9%) and Myringitis (40%). Performance was primarily affected by clinical noise and lighting variations. Conclusion : OTOLens demonstrates the feasibility of AI-driven ear diagnostics. While effective for identifying perforations, further dataset expansion and model refinement are essential for reliable clinical integration.

IS-225 OUTCOMES OF HARMONIC SCALPEL VERSUS BIPOLAR ELECTROCAUTERY TONSILLECTOMY

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Tonsillectomy is a common ENT procedure, yet perioperative issues such as bleeding, pain, and delayed healing remain challenges. Bipolar electrocautery provides good haemostasis but causes more thermal injury and postoperative pain. The harmonic scalpel, operating at lower temperatures, may reduce morbidity. This randomized clinical study compared harmonic scalpel and bipolar electrocautery tonsillectomy in 88 patients at the Otorhinolaryngology-Head and Neck Surgery Specialist Hospital, Yangon, from December 2023 to May 2025. Patients were allocated into two equal groups, and all surgeries were performed by the same surgeon under general anaesthesia. Outcomes measured included operative time, intraoperative blood loss, postoperative pain at 4 hours, day 1 and day 3, postoperative haemorrhage, and wound healing on days 7 and 14. Harmonic scalpel tonsillectomy showed significantly less blood loss, shorter operative time, lower pain scores, and better healing at day 14, with no significant difference in haemorrhage. Overall, the harmonic scalpel provided superior perioperative outcomes.

IS-226 Withdrawn

IS-227 Persistent Halitosis as a Diagnostic Challenge in Otolaryngology : A Case Report

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Halitosis is an uncommon complaint in otolaryngology clinics and is often underrecognized despite its psychosocial impact. We report a case of a 30-year-old female referred to an ENT clinic with persistent breath malodour for several years, causing social embarrassment. Oral hygiene measures, including toothbrushing, mouthwash use, and dietary modification, were ineffective. The patient also reported intermittent gas reflux sensations.ENT examination revealed normal otologic and nasal findings, with no evidence of sinonasal disease. Oral and dental evaluations showed no intraoral pathology. Tonsillar examination demonstrated bilateral grade II tonsillar hypertrophy with enlarged crypts without visible detritus. Extraoral causes of halitosis, including laryngopharyngeal reflux (LPR) and tonsillar pathology, were suspected. This case highlights the diagnostic challenge of halitosis in ENT practice, particularly where objective assessment tools are unavailable. Systematic exclusion of intraoral, extraoral, and psychogenic causes is essential. Empirical treatment for suspected LPR may be initiated, while tonsillectomy should be reserved as a last-line option.

IS-228 Prospective Multicenter Study on the Efficacy of Epipharyngeal Abrasive Therapy : Final Report

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Inflammation of the epipharynx can cause both local symptoms, such as postnasal drip, and systemic symptoms including fatigue and brain fog. Although B-spot therapy for chronic epipharyngitis was proposed in the 1960s, it has not been widely adopted due to limited scientific evidence. To establish diagnostic criteria and evaluate the efficacy of epipharyngeal abrasive therapy (EAT), we conducted a prospective multicenter questionnaire-based study.

Patients aged more than16 years with symptoms lasting over 1 month and endoscopic findings of inflammation with abrasion-induced bleeding were included. EAT was performed weekly using 1% zinc chloride applied transnasally or transorally. Symptom severity was recorded weekly using a visual analog scale (VAS), and endoscopic changes were evaluated before and after treatment.

A total of 121 women and 54 men (median age 44 years) were enrolled. Major symptoms included postnasal drip, fatigue, and globus sensation. VAS scores improved markedly from a median of 90 to 25 after treatment. This study demonstrates the therapeutic benefit of EAT and provides insight into characteristics associated with favorable response.

IS-229 Tonsillar Tfh Cells – Memory B Cell Axis Contribute to the Pathogenesis of IgA Nephropathy

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Immunoglobulin A nephropathy (IgAN) is a chronic glomerular disease with mesangial IgA deposition that can progress to renal failure. Tonsillectomy is used to slow disease progression, yet the tonsillar immune mechanisms underlying IgAN remain unclear. To clarify the tonsillar immune microenvironment driving pathogenic antibody production, we analyzed T and B cell subsets in relation to renal function. Interfollicular T follicular helper (IF-Tfh) cells ($CD3^+CD4^+CD8^-PD\text{-}1^{lo}CXCR5^{lo}$) were significantly increased in IgAN tonsils compared with controls and closely associated with renal abnormalities. Transcriptomic analysis revealed distinct IF-Tfh gene signatures enriched in effector memory T cell features linked to kidney impairment. Functionally, IF-Tfh cells promoted class-switched memory B cells to produce galactose-deficient IgA and anti-Tn (GalNAc-Ser/Thr) antibodies, both implicated in pathogenic immune complex formation. These findings indicate that an IF-Tfh-dominant immune milieu in tonsils drives IgAN pathogenesis and may offer a potential target for noninvasive therapy.

IS-230 Immortalized Adenoid Epithelial Cells as a Model for Respiratory Virus Dynamics and Innate Immunity

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The pharyngeal tonsils are secondary lymphoid tissue that enlarge after birth and atrophies after puberty. As part of the mucosa-associated lymphoid system, they initiate immune responses against inhaled antigens. However, primary culture of adenoid epithelial cells remains challenging, and limiting in vitro studies of respiratory viruses. In this study, we established immortalized adenoid epithelial cell lines by introducing either the human telomerase reverse transcriptase (hTERT) or SV 40 large T antigen (SV40-T) into primary cells isolated from pediatric adenoid tissue using a lentiviral vector. Both immortalized lines showed prolonged growth while maintaining epithelial morphology compared with the primary cells. Upon infection with RS virus A2 strain, viral replication was comparable. Notably, the hTERT-immortalized line preserved an interferon production comparable to the primary cells, whereas the SV40-T-immortalized line showed a reduced production. These long-term viable cell lines retain key morphological and functional characteristics of adenoid epithelium and provide a valuable model for studying viral responses and innate immune regulation.

IS-231 A RARE CASE OF LARYNGEAL CHONDROSARCOMA

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INTRODUCTION Laryngeal chondrosarcoma is a rare tumor, accounting for less than 1% of all sarcomas of the body. The etiology of laryngeal chondrosarcoma is unknown, but seems to result from disordered ossification of the laryngeal cartilage. The initial treatment is surgery. CASE REPORT Male, 55 years old, presented with difficulty in breathing accompanied with stridor that worsened in the past month. Based on tumor's progression, we performed total laryngectomy. Histopathology results revealed chondrogenic mass, with signs of infiltration, comprised of lobules of chondrocytes. It correlated with grade 2 chondrosarcoma. Patient then underwent adjuvant radiotherapy. Eight weeks after, MRI revealed no evidence of residual laryngeal mass nor neck lymph node enlargement. A two year follow-up with MRI also revealed no evidence of residual laryngeal mass nor neck lymph node enlargement. CONCLUSION Laryngeal chondrosarcomas are typically indolent, slowly growing tumors, which rarely metastasize. Even though surgery is the treatment of choice, there may be added benefit of adjuvant radiotherapy for local control, preservation of quality of life and excellent survival rates.

IS-232 Povidone-peroxide solution for intra-operative identification of post-laryngectomy pharyngeal leak

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Background : Pharyngocutaneous fistula is a common and morbid complication after total laryngectomy. Early identification of technical causes of pharyngeal leaks may reduce incidence. Methods : A simple technique using a 1 : 1 : 1 solution of povidone-iodine (10%), hydrogen peroxide (3%), and normal saline (0. 9%) was instilled intraorally during surgery. Visual signs of leakage—brownish staining or frothing—indicated compromised suture line integrity, which was repaired and rechecked intraoperatively. Results : Among 14 patients, 3 had positive leak tests ; one developed a postoperative fistula. Of the 11 patients with negative leak tests, one developed a leak. The overall leak rate was 14. 2%. Conclusion : Intraoperative testing with a povidone-iodine-peroxide solution is a simple, low-cost method to detect and correct minor pharyngeal defects at the time of surgery. While not preventing all leaks, it may help reduce incidence related to technical factors and warrants further validation.

IS-233 Dilemma of the rcN0 Neck : Assessing the Value of Elective Neck Dissection in Salvage Laryngectomy

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Background : Management of the clinically negative neck in laryngeal and hypopharyngeal cancer remains controversial in salvage surgery. This study evaluated occult nodal metastasis and identified clinical and radiological predictors of nodal involvement and oncologic outcomes. Methods : A multicenter retrospective cohort from two tertiary centers in Linkou, Taiwan, and Genoa, Italy, was analyzed. Associations with pN+ status and survival outcomes were evaluated using univariate and multivariate analyses. Results : 65 patients were included, of whom 51 underwent neck dissection. The overall occult nodal metastasis rate was 15.7%. On univariate analysis, pN+ status was associated with laryngeal motility impairment ($p=0.028$) and posterior paraglottic space (PGS) invasion ($p=0.040$). Neck dissection was associated with lower recurrence rates ($p=0.009$) and improved disease-free survival (DFS) ($p=0.026$). Posterior PGS invasion remained an independent predictor of pN+ status ($p=0.05$) and DFS ($p=0.027$). Conclusion : Posterior PGS invasion predicts occult nodal disease and prognosis. Elective neck dissection may improve disease control in selected rcN0 patients.

IS-234 AIRSPACE : An internationally validated radiomic-clinical survival model in advanced laryngeal cancer

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Background : Advanced laryngeal cancer lacks reliable tools for personalised prognostication. Conventional staging does not capture tumour biology, leading to uncertainty in treatment decisions. This study evaluated whether CT based radiomic features combined with clinical data improve survival prediction with international validation. Methods : Patients with T3-T4 laryngeal squamous cell carcinoma ($n=246$) were analysed. Radiomic features were extracted from pre treatment CT scans. Clinical, radiomics, and combined prognostic models were developed using Cox regression and externally validated using international datasets ($n=128$). Results : In external validation, the clinical model achieved an AUC of 0.69, the radiomics model 0.82, and the combined model the highest performance at 0.86. High risk patients identified by the radiomics score had higher overall and disease specific mortality, with clear survival separation between risk groups. Conclusion : This is the first internationally validated radiomic-clinical model in advanced laryngeal cancer, showing that routine imaging provides actionable prognostic information to support personalised risk stratification and shared decision making.

IS-235 Oral Intake and Voice after Total Laryngectomy in Advanced Laryngeal and Hypopharyngeal Cancer

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For patients with advanced laryngeal and hypopharyngeal cancer, definitive surgery including total laryngectomy is selected as treatment when organ-preserving chemoradiotherapy is not indicated. Although total laryngectomy affects postoperative quality of life, data on postoperative oral intake and alternative voice acquisition remain limited. We retrospectively analyzed 233 patients with advanced laryngeal or hypopharyngeal cancer who underwent total laryngectomy between 2005 and 2019 at Osaka Prefectural Hospital Organization and our department. The median age was 65 years (range, 31-97). There were 83 patients with laryngeal cancer and 150 with hypopharyngeal cancer. Clinical stage was III in 44 patients and IV in 189. Reconstruction was performed in 163 patients, and 156 had radiotherapy. The 5-year overall survival rate was 57.8%, with disease-specific survival rates of 69.7% for laryngeal cancer and 51.7% for hypopharyngeal cancer. Oral intake was achieved in 226 patients (97%), whereas alternative voice acquisition was achieved in 100 patients (41.7%). Multivariate analysis identified age 70 years or older and living alone as negative factors for alternative voice acquisition.

IS-236 Clinico-radiological and histopathological findings of advanced laryngeal & hypopharyngeal carcinoma

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AimsTo correlate clinicoradiological findings of cartilage involvement with histopathology for laryngeal and hypopharyngeal cancers. MethodologyThis was a retrospective study of 143 patients from year 2010 to 2019. ResultsThe mean age of the population was 53 years (15–69) with a Male to female ratio of 3 : 1 (108 : 35). The epicenter was Larynx in 97 and Hypopharynx in 46 patients. Dysphagia (48) was the most common symptom followed by hoarseness of voice (65). Six patients had prior tracheostomy. Majority had PDSCC (70, 49%) or MDSCC (70, 49%). Three (2%) had WDSCC. The major indication for surgery was cartilage erosion (90%), non-functional larynx (8%) and extra-laryngeal spread without cartilage erosion (2%). The histopathological cartilage erosion was present in 75% patients. Thyroid cartilage was eroded in 99, thyroid/arytenoid in 2, thyroid/arytenoid/cricoid in 1 and thyroid/cricoid in 5 patients. Adjuvant Radiotherapy was received by 68 and Concurrent Chemoradiotherapy in 65 patients. Majority of the patients were alive (91, 64%) at a median follow up of 28 months. ConclusionOur study shows utility of CT scan in assessing cartilage erosion and extralayngeal extension of disease.

IS-237 Establishing an air-liquid interface system for exposure of mouse laryngeal epithelial cells to cigarette smoke

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Objective : The laryngeal epithelium serves as the first line of defense against inhaled insults, including cigarette smoke (CS). CS is implicated in the development of multiple laryngeal diseases. However, a lack of suitable in vitro model systems has limited mechanistic studies of laryngeal epithelial injury and disease pathogenesis. The purpose of this investigation was to establish an air-liquid interface (ALI) system for modeling airborne CS exposure in laryngeal epithelial cells.

Methods : Primary mouse laryngeal epithelial cells were harvested, cultured, and transitioned from submerged to ALI conditions to induce epithelial differentiation. ALI cultures were characterized by electrophysiological evaluation of transepithelial resistance (TEER), histology, and immunofluorescent staining for epithelial markers and compared with native laryngeal tissue. ALI cultures were exposed to increasing doses of CS during differentiation, and epithelial barrier integrity was assessed by evaluating cytotoxicity, TEER, and structure.

Results : Submerged laryngeal epithelial cultures were primarily proliferating basal cells. Histological analysis from differentiated ALI cultures demonstrated progressive epithelial maturation, with formation of a multilayered structure and high TEER, indicative of robust barrier integrity. Epithelial marker localization in ALI cultures closely resembled that of native mouse vocal fold epithelium. CS exposure disrupted epithelial barrier integrity in a dose-dependent manner including increased cytotoxicity and reductions in TEER. Moderate exposure permitted recovery of function and structure, underscoring the intrinsic resilience of laryngeal epithelial cells.

Conclusion : These findings establish a physiologically relevant in vitro model that recapitulates key features of native laryngeal epithelium and provides a robust platform for investigating the cellular and molecular pathways governing CS-induced epithelial injury and repair.

IS-238 Withdrawn

IS-239 Novel insights into the role of ubiquitin ligase TRIM27 in the mechanism of carcinogenesis

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TRIM27, a ubiquitin ligase in the TRIM protein family, is reportedly involved in development, innate immunity, and carcinogenesis. We previously reported that high TRIM27 expression correlates with poor prognosis in sinonasal mucosal melanoma.

To investigate TRIM27's molecular mechanism in carcinogenesis, we screened TRIM27-binding molecules using mass spectrometry, resulting in the identification of a molecule complex, hereafter referred to as complex X. With the combination of structural analysis and immunoprecipitation, we identified the direct binding between TRIM27 and complex X as well as its responsible bases. The complex X has been reported to regulate a carcinogenes IS-related signal pathway, referred to as pathway Y. The mRNA expression of downstream gene of the pathway Y was significantly lower in TRIM27 KO cells than in wild-type cells (WT : 69.70±9.97 vs. KO : 13.67±2.59, $p<0.05$).

These findings suggest that TRIM27 contributes to carcinogenesis by modulating pathway Y via Complex X. TRIM27 may be a potential therapeutic target for malignancy tumors.

IS-240 Organoid and Genome Editing Models Reveal Driver-Defined Mechanisms in Head and Neck Cancer

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Background : Head and neck cancer (HNC) is the sixth most common malignancy worldwide, yet its pathogenic mechanisms and effective targeted therapies remain unclear. A key challenge is the lack of tractable animal models that faithfully recapitulate human HNC. Methods : We combined organoid technology with genome editing to generate primary, orthotopic, and driver-defined HNC models in mice that reproduce molecular and histopathological features of human disease. These Organoid-Initiated Precision Cancer Models (OPCMs) enable precise dissection of tumorigenic events. Results : Tp53 mutation with MYC overexpression initiated HNC formation, while additional CDKN2A loss enhanced aggressiveness. Sequential introduction of Tp53 mutation, MYC overexpression, CDKN2A loss, and KMT2C loss produced tumors with epithelial-to-mesenchymal transition (EMT) features, revealing mechanisms of malignant progression. Tumor organoids derived from these models were used for high-throughput drug screening, identifying mutation-specific vulnerabilities. Conclusion : OPCMs provide a versatile platform for modeling HNC carcinogenesis and for preclinical testing of precision therapies.

IS-241 Mechanism-based mTOR and EGFR/MAPK inhibition provides an effective therapeutic strategy for HNSCC

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Genomic alterations that converge on persistent activation of the PI3K/mTOR pathway constitute one of the most frequently dysregulated signaling networks in cancer. In Head and Neck Squamous Cell Carcinoma (HNSCC), aberrant activation of this pathway is observed in approximately 80% of cases. Such dependency on PI3K/mTOR signaling for tumor progression suggests a potential therapeutic vulnerability. Nevertheless, the clinical efficacy of mTOR inhibitors (mTORi) in HNSCC has been modest. Using a high-throughput kinase activity mapping platform and CRISPR/Cas9-based synthetic lethal screening, we demonstrate that activation of EGFR/MAPK signaling following mTOR inhibition represents a major adaptive and compensatory resistance mechanism to mTORi in HNSCC. Furthermore, the combined inhibition of mTOR and EGFR yields synergistic antitumor effects, revealing a druggable signaling node capable of enhancing the therapeutic impact of mTOR blockade. These findings provide a mechanistic rationale for developing novel combination strategies targeting the PI3K/mTOR and EGFR/MAPK pathways in HNSCC.

IS-242 Deep Learning Integration of Pathology Images and Transcriptomics for Prognostic Modeling in HNSCC

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Histopathological and molecular characteristics are key prognostic determinants in head and neck squamous cell carcinoma (HNSCC), yet integrating these domains remains challenging. Advances in whole-slide imaging (WSI) and large public datasets, most notably The Cancer Genome Atlas (TCGA), have accelerated digital pathology analysis, creating opportunities to link histomorphology and tumor biology.

We examined the TCGA-HNSC cohort to integrate deep-learning-derived morphological features with bulk RNA-seq data. A total of 341 patients with both WSI and transcriptomic data available were included. WSIs were divided into patches to derive morphological prototypes, while transcriptomic data were summarized into hallmark pathways. Integrated analysis suggested correspondences between certain morphological prototypes and pathway activities, with combined features improving prognostic prediction.

This prototype-based approach may also extend to non-image data such as surgery record by structuring surgical findings into conceptual categories. Such cross-modal integration may uncover prognostic patterns beyond human interpretation and enable more individualized risk stratification in HNSCC.

IS-243 CD44 Variant 10 Monoclonal Antibody Exerts Antitumor Activity in Oral Squamous Cell Carcinoma Models

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CD44 regulates cell adhesion, proliferation, survival, and stemness, and it possesses the shortest CD44 standard (CD44 s) and a variety of CD44 variant (CD44v) isoforms. It is known that the expression of CD44v is restricted in epithelial cells and carcinomas compared to CD44s. We previously developed an anti-CD44v10 monoclonal antibody (mAb), C_{44} Mab-18 (IgM, kappa), to recognize the variant exon 10-encoded region. This study generated a mouse IgG_{2a} version of C44Mab-18 (C_{44} Mab-18-mG_{2a}) to evaluate the antitumor activities against CD44-positive cells. C_{44} Mab-18-mG_{2a} exhibited higher reactivity compared with previously established anti-pan CD44 mAb, C_{44} Mab-46-mG_{2a} to CD44v3-10-overexpressed CHO-K1 (CHO/CD44v3-10) and oral squamous cell carcinoma cell lines (HSC-2 and SAS) in flow cytometry. C_{44} Mab-18-mG_{2a} exerted a high antibody-dependent cellular cytotoxicity against CHO/CD44v3-10, HSC-2, and SAS. Furthermore, administering C_{44} Mab-18-mG_{2a} or C_{44} Mab-46-mG_{2a} significantly suppressed CHO/CD44v3-10, HSC-2, and SAS xenograft tumor growth compared with the control mouse IgG_{2a}. These results indicate that C_{44} Mab-18-mG_{2a} could be a promising therapeutic regimen for CD44v10-positive tumors.

IS-244 Injection Laryngoplasty on Cough Strength and Swallowing Safety in Treating Glottal Insufficiency

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Glottal competence and cough effectiveness are closely associated with aspiration. Injection laryngoplasty (IL) is a mainstay treatment for unilateral vocal fold paralysis, though its mechanism in aspiration prevention is not fully understood. This prospective study evaluated the effects of IL on voluntary cough strength, glottal closure, and swallowing function, comparing patients with and without ongoing treatment or systemic disease. Maximum volitional cough pressure (MCoughP) and normalized glottal gap area were measured pre- and post-IL, as well as the EAT-10 and PAS score.Forty-one patients (mean age 58. 7 years) were included. IL significantly improved voice outcomes and glottal closure in all patients and significantly reduced EAT-10 scores and PAS during cup-sipping. Patients without ongoing treatment or systemic disease showed a significant increase in MCoughP, whereas those with ongoing conditions demonstrated a decrease. Although IL effectively improves glottal competence, improvements in cough strength and swallowing safety appear dependent on patients' general condition. Adjunct rehabilitation may be beneficial for patients with compromised health status.

IS-245 Effects of reading speed on CPP and AVQI during sentence reading in patients with voice disorders

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Objective : Cepstral peak prominence (CPP) enables objective acoustic evaluation of connected speech ; however, sentence reading introduces variability. While effects of passage composition have been reported, the influence of reading speed remains unclear. This study examined the impact of reading speed on CPP and the Acoustic Voice Quality Index (AVQI).

Methods : Seventy patients with voice disorders read a Japanese sentence consisting of 58 syllables at three different reading speeds.

Results : CPP showed a slight increase as reading speed decreased, although effect sizes were consistently small. For AVQI, most changes in mean values were smaller than the reported minimal detectable change and minimal important difference ; however, a minority of patients exhibited changes exceeding these thresholds.

Conclusion : On average, variations in reading speed exerted only a minor influence on CPP and AVQI. Nevertheless, substantial changes in AVQI were observed in a subset of patients, indicating that caution is warranted when interpreting AVQI under different reading speed conditions.

IS-246 Outcomes of procedural interventions for chronic refractory cough

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Chronic refractory cough (CRC) is cough lasting for >8 weeks not responding to treatment. Cough hypersensitivity syndrome (CHS) is an important cause of CRC, and interventions such as superior laryngeal nerve (SLN) blocks and supraglottic botulinum toxin (BonT-A) injection have previously been described as treatment options. In this study, we describe the treatment protocol at our multidisciplinary CRC clinic and present the outcomes of patients undergoing procedural interventions. Methods : Patients who consent receive bilateral SLN blocks with Bupivacaine and Triamcinolone. If this is successful, patients either continue with 2 more SLN blocks or switch to supraglottic BonT-A. Outcomes were measured with baseline and follow-up Leicester Cough Questionnaire (LCQ) and Newcastle Laryngeal Hypersensitivity Questionnaire (NLHQ). Results : 18 patients underwent procedural intervention had at least 1 follow-up. 77.8% of patients reported post-intervention improvement. Mean LCQ score improved from 11.2 to 14.8. 72.2% of patients achieved MCID improvement in LCQ. Conclusion : Intervention such as SLN block and supraglottic BonT-A are important treatment options of CRC.

IS-247 Medialization Laryngoplasty in Unilateral Vocal Cord Palsy in South Indian Population

○PUNEETH P J
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The presentation discusses various etiopathogenesis and clinical outcomes of autologous fat injection, hyaluronic acid in patients with unilateral vocal cord paralysis in south Indian population

IS-248 Withdrawn

IS-249 Pirfenidone injection to prevent vocal fold scar in a canine model : a pilot study

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Introduction : Postoperative vocal fold (VF) scarring remains a major challenge after laser cordectomy. Pirfenidone (PFD) is an antifibrotic agent, but its role in preventing VF scarring is unclear. We aimed to evaluate safety and preventive effect of PFD injection in a canine model. Methods : For toxicity assessment, saline or PFD (0.5-10.0 mg/mL) was injected into bilateral VFs of three dogs, with histologic evaluation at 2 weeks. For efficacy testing, three dogs received unilateral VF injection with saline, 1.0, or 2.5 mg/mL PFD followed by laser cordectomy. Laryngoscopic evaluation was performed at 4 and 8 weeks. Vibratory function assessment with high-speed imaging, histologic and immunohistochemical analyses for collagen type I (COL1) and α-smooth muscle actin (α-SMA) were assessed at 8 weeks. Results : VFs injected with ≤2.5 mg/mL PFD showed complete epithelial healing, whereas higher concentrations caused epithelial detachment. PFD-treated VFs demonstrated improved mucosal wave amplitude, reduced fibrosis, and lower COL1 and α-SMA expression compared with controls. Conclusion : PFD injection may safely attenuate postoperative VF scarring after laser cordectomy.

IS-250 A Dilated Mastoid Emissary Vein as a Potential Cause of Pulsatile Tinnitus

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This study aimed to investigate the association between the mastoid emissary vein (MEV) and pulsatile tinnitus (PT) and to identify MEV-related factors that contribute to development of PT. We retrospectively reviewed temporal bone computed tomography of 237 ears (46 with PT, 191 without PT).Among 237 ears, MEV was identified in 73.9% of ears with PT and 61.3% of ears without PT, with no significant difference between groups. However, dilated MEV was significantly more prevalent in the PT group than in the non-PT group (56.5% vs. 29.3%, $p<0.001$, OR=3.13). Among 151 ears with MEV, ears with PT demonstrated a significantly higher proportion of dilated MEV compared with non-PT ears (76.5% vs. 47.9%, $p=0.003$, OR=3.54). Mean MEV orifice diameter was significantly larger in the PT group on both axial (4.2 mm vs. 3.5 mm, $p=0.010$) and coronal images (4.5 mm vs. 3.8 mm, $p=0.009$). In addition, the presence of MEV was significantly associated with concomitant venous abnormalities ($p=0.035$, OR=2.05). Dilated MEVs are significantly associated with PT and are more likely to be accompanied by concurrent venous abnormalities.

IS-251 Personalized Striatal Tinnitus Network Neuromodulation for Tinnitus Mitigation

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Striatal tinnitus network variations among individuals may account for treatment benefit heterogeneity in subjects who underwent direct caudate nucleus stimulation for treatment-resistant tinnitus (Cheung et al., 2020). We developed a method for reconstructing personalized resting-state fMRI striatal tinnitus network maps (Hinkley et al., 2022) for neuromodulation treatment targeting. In a small trial (n = 8) using single session transcranial ultrasound (TUS; Attune Neurosciences) stimulation of the caudate subdivision with the greatest connectivity to the lateral temporal auditory areas, change in tinnitus loudness was measured using a 10-point numeric rating scale (NRS). Of the 6 responders, 5 reported peak NRS score reduction (> 2 points) between 24- and 36-hours following stimulation. Compared to the unfocused sham stimulation, NRS score changes anchored to peak reduction were significant at peak ($p = 0.005$), and 12- ($p = 0.047$) and 24-hours following peak ($p = 0.032$), with all scores returning to baseline ~36 hours after peak. These findings demonstrate the usefulness of personalized striatal tinnitus networks in neuromodulation treatment targeting for tinnitus mitigation.

IS-252 Diffusion tensor imaging (DTI) structural changes in tinnitus and severity correlates

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Objectives: 1. To determine structural connectivity between paired brain regions in tinnitus using diffusion magnetic resonance imaging. 2. To correlate structural connectivity in tinnitus with tinnitus severity. Methods: 386 subjects were partitioned into four cohorts based on tinnitus and hearing status. Subjects underwent high angular resolution diffusion imaging (HARDI) to create structural connectome (SC) matrices. Statistically significant region of interest (ROI) pairs for tinnitus, hearing loss, and their interaction effects were identified by analysis of covariance (ANCOVA). Tinnitus ROI edges underwent partial correlation analysis using TFI total and subscale scores to assess SC associations with tinnitus severity and tinnitus domain impact. Results: Structural connectome edges for tinnitus are in cortical areas and include novel and known anatomic connections. Three ROI pair connections have significant correlations with tinnitus severity and tinnitus domain impact. Conclusions: Neuroplastic structural changes related to tinnitus include a wider network that extend beyond auditory cortical regions and include compensatory and compromised structural changes.

IS-253 Natural course of SLC26A4-associated hearing loss

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SLC26A4-associated hearing loss, including Pendred syndrome and DFNB4, is the second most common cause hereditary hearing loss in Japanese children. It is characterized by enlarged vestibular aqueduct and inner ear malformations, sometimes accompanied by vertigo or thyroid goiter. The typical hearing phenotype is congenital high-frequency sensorineural hearing loss with fluctuation and progression. However, long-term follow-up data on SLC26A4-associated hearing loss remains limited. To address this, we aimed to clarify its natural course in this study. We retrospectively reviewed patients with SLC26A4-associated hearing loss who visited at our hospital between 2001 and 2025. Audiometric data obtained prior to cochlear implantation were included. Herein, we demonstrate that SLC26A4-associated hearing loss progresses over time with greater fluctuation during childhood and adolescence. After the early twenties, fluctuation becomes less frequent, but both the better and worse ears typically advance to severe hearing loss. Our findings highlight the need for long-term follow-up and provide valuable information for patients and their families.

IS-254 Management of Pulsatile Tinnitus Using Sigmoid Sinus Resurfacing with Doppler Ultrasound

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Sigmoid sinus wall resurfacing (SSWR) is a surgical treatment for venous pulsatile tinnitus caused by sigmoid sinus wall anomalies. Intraoperative Doppler ultrasound (IDU) can identify the precise location of the anomalies, potentially minimizing the reconstruction thickness. A retrospective review was conducted of 54 patients who underwent SSWR, among which 20 underwent surgery with and 34 without IDU guidance. Both groups demonstrated significant postoperative improvements in Tinnitus Handicap Inventory (THI) and visual analog scale (VAS). There were no significant differences in cure rate, symptom improvements or aggravations. In the subgroup of patients with available postoperative computed tomography (n=35), the IDU group exhibited a significantly thinner reconstructed bone cement layer compared to the non-IDU group ($P<0.001$). Patients with reconstructed wall thickness exceeding 5 mm had an approximately 14-fold increased risk of postoperative aural fullness ($P=0.007$). The use of IDU may facilitate optimal reconstruction by preventing excessive bone cement application, thereby preserving surgical efficacy while reducing postoperative complications.

IS-255 Smartphone-based Hearing Aid: Impact On Communication, Tinnitus and Quality Of Life in Older Adults

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Aim: In Hong Kong, access to hearing aids is hindered by long waiting times and high costs. This study evaluated the effectiveness of a smartphone-based hearing aid, the AirPods Pro (2nd Generation), in improving communication, tinnitus and quality of life, compared with conventional hearing aid in older adults. Methods: 86 patients with mild-to-moderately-severe hearing loss were randomized to intervention group or control group. The intervention group received AirPods Pro with user guidance, while the control group was referred for conventional hearing aid fitting. Subjects were assessed at baseline and at 3-month in change in communication, tinnitus and quality of life. Results: Both groups demonstrated significant improvement in communication (HHIE-S) (Intervention group: 24.7 to 16.2 ($p<0.001$); control group 22.0 to 17.3 ($p=0.024$)). Tinnitus symptoms (THI) in the intervention group improved from 40.4 to 26.1 ($p<0.001$) but not in the control group. Conclusion: Smartphone-based hearing aid provided communication benefits comparable to conventional hearing aids and additional benefit for tinnitus. They may offer an accessible alternative in hearing rehabilitation.

IS-256 Extra cranial neurogenic tumors in head and neck -our experience

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Extra cranial neurogenic tumors(NSTs) of the head and neck are rare lesions arising from nerve sheath cells or neural crest derivatives. They include schwannomas, neurofibromas, malignant peripheral nerve sheath tumors, paragangliomas, ganglioneuroblastomas, and extra cranial meningiomas, most often located in parapharyngeal space. this study retrospectively reviewed 79 cases treated between 2008-2017. Schwannomas (37) and neurofibromas (28) were most common, followed by carotid body and gloomy tumours 4 each, ganglioneuroma (2), ganglioneuroblastoma (1), extracranialmeningioma (1), MPNST (1). Female preponderance (1: 3, male: female was noted. Neck swelling was the most frequent presentation with vagus nerve involvement in 36 cases; others include brachial plexus, facial, glossopharyngeal, hypoglossal. Complications include nerve palsies, seromas, Horner's syndrome particularly in neur neurofibromas, glomus.Schwannomas allowed complete excision with minimal morbidity, while neurofibromas and glomus carried postoperative risks. careful dissection and endoscopic techniques are crucial for preserving nerve function and minimising complications.

IS-257 A giant neck mass of cutaneous origin : Diagnostic and Therapeutic challenges

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Syringocystadenocarcinoma papilliferum is a rare cutaneous adnexal neoplasm in the head and neck. We report case of an unfamiliar giant cystic mass that involved the neck extending posteriorly till nape of neck. A nil comorbid elderly man in his 90s presented with slowly progressive lateral neck swelling over 2 years. Initial fine needle cytology yielded no diagnosis. Magnetic resonance Imaging demonstrated the lesion to be invovling entire anterior and posterior triangles of the neck without extending into the mediastinum. The lesion caused significant discomfort, severely impairing the patient's daily activities involving neck movements. Despite geriatric challenges, complete excision was performed by the transcervical approach. The final histology of the excised specimen, with immunohistochemistry for cytokeratin 7, 19 & SOX10 suggested Syringocystadenocarcinoma papilliferum. This report accentuates the occurrence of this rare neoplasm in the neck, which often mimic cystic hygroma or other cystic metastases. A successful transcervical excision despite the posterior extension of the critical structures of the neck demonstrates the non-infiltrating nature of the tumour.

IS-258 Anatomic Camouflage : A Case of Thyroglossal Duct Cyst in the Guise of a Laryngocele

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Thyroglossal duct cysts are the most common congenital neck cysts. They typically present in childhood and early adulthood, and but can also present in later adult life. CASE : A 63-year-old retired male police officer presented with anterior neck swelling for 5 years that was growing gradually. He otherwise had no history suggestive obstructive or malignancy. On examination of neck there was an mass measuring 4×4cm extending from left level II to IV, no skin changes,non erythematous, non-tender, firm in consistency. The mass increased in size with Valsalva maneuver. We then proceeded with FNPLS and 70 degree rigid scope that showed left supraglottic fullness above false cord. USG showed a well defined lobulated mass measuring 5.7× 3.7cm. CT scan showed multilobulated thin wall cystic lesion at left paraglottic space extending inferior and externally. He then underwent a DL, EUA, transcervical (transthyrohyoid approach) excision of laryngocele. HPE showed epithelial cyst suggesting thyroglossal cyst. To ensure the best outcome ENT surgeons must always expand the list of differential diagnoses when faced with a cervical cystic mass.

IS-259 Radiation-induced sarcoma and spindle cell carcinoma : Clinical features and molecular signatures.

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Background : Radiation-induced sarcoma (RISHN) and spindle cell carcinoma of the head and neck (HNSpCC) are rare but aggressive malignancies arising after radiotherapy (RT) for head and neck cancer (HNC). Methods : We retrospectively analyzed patients with RISHN (n=24) and HNSpCC (n=71), evaluating clinical features, treatment history, latency, recurrence, and survival. Whole-exome sequencing (WES) was performed to identify molecular signatures. Results : Both tumors predominantly affected male patients and most commonly involved the oral cavity. RISHN demonstrated a wide latency after RT (median 6.5 years) and poor median survival (21.5 months). Factors associated to short latency were analyzed. HNSpCC showed aggressive behavior, with high local recurrence (47.9%), distant metastasis (25.3%), and a 5-year disease-specific survival of 43.9%. Prior RT predicted worse outcomes. WES revealed alterations in cell cycle, tumor necrosis factor, hypoxia, and cell-extracellular matrix interactions. Conclusions : RISHN and post-radiation HNSpCC share aggressive clinical courses and distinct molecular features. Identification of high-risk patients may enable earlier detection and management.

IS-260 A Case of Leiomyosarcoma Arising in the Sternocleidomastoid Muscle

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We report an extremely rare case of leiomyosarcoma (LMS) arising in the sternocleidomastoid muscle. A 75-year-old woman presented with a progressively enlarging right neck mass. Imaging studies, including CT, MRI, and PET-CT, revealed a lobulated intramuscular tumor with invasion of the overlying skin and intense FDG uptake, without evidence of distant metastasis. Fine-needle aspiration cytology suggested a malignant soft tissue sarcoma. Radical en bloc resection was performed, including the sternocleidomastoid muscle, overlying skin, and infrahyoid muscles. Histopathological examination confirmed the diagnosis of LMS. Although macroscopic total resection was achieved, close surgical margins were noted. Despite extensive surgery, supraclavicular recurrence developed on postoperative day 75. Salvage resection on day 144 resulted in positive margins. After the patient declined adjuvant radiotherapy, further local recurrence was observed on day 181, followed by lung metastases on day 203. The patient was subsequently transitioned to best supportive care. We discuss this extremely rare case of primary head and neck LMS with a brief review of the relevant literature.

IS-261 Combined Operative and Radiotherapy Approach Reduces Recurrence in Kimura's Disease

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Background: Kimura's Disease (KD) is a rare chronic inflammatory disorder affecting the head and neck. Surgical excision is primary treatment, but recurrence reaches 46% due to infiltrative lesions. Adjuvant radiotherapy is recommended for positive margins, multifocal disease, or unresectable cases. Case: A 44-year-old male presented with progressive left parotid mass (3×3×3cm) involving masticator and posterior cervical spaces. Superficial parotidectomy confirmed KD with follicular hyperplasia, massive eosinophilic infiltration, and fibrosis. Methods: Systematic review of eight studies (n=203 patients) comparing treatment modalities. Results: Combined surgery plus radiotherapy achieved lower recurrence (8.3-26.9%) versus surgery alone (30.5-46%), with 92.9% local control. High-risk features requiring combination therapy: tumor ≥3cm, duration ≥5 years, eosinophilia ≥20%, or IgE ≥10,000 IU/mL. Conclusion: Multimodal therapy improves outcomes in KD, particularly for infiltrative, multifocal, or high-risk cases, establishing evidence-based optimal management.

IS-262 Augmented Reality-Enhanced Cadaver Surgical Training Using the Apple Vision Pro

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Objective: Cadaver surgical training (CST) is crucial in head and neck surgery. In a previous study, we developed an augmented reality-enhanced CST (AR-CST) system using the HoloLens 2 (Microsoft Corp.). However, limitations were identified, including poor visibility and operability. This study aimed to refine the system using the Apple Vision Pro (Apple Inc.) and evaluate its feasibility. Methods: The video see-through Vision Pro provided high-resolution content overlay. We added features for selective 3D anatomical display, immersive 3D surgical video, and real-time multi-user collaboration. 11 physicians and medical students evaluated the system via hands-on demonstration and survey. Results: The system received a high rating for its usefulness in learning (mean: 4.91/5). All participants preferred the Vision Pro system over the previous HoloLens 2 version. Qualitative feedback praised the improved visibility, intuitive controls, and new collaborative and selective display functions. Conclusion: The Vision Pro system resolved previous limitations, demonstrating high utility and feasibility for collaborative and detailed 3D anatomical training.

IS-263 Application of VSP and 3D-Printed Cutting Guides in Mandibular Defect Reconstruction

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Introduction : Segmental mandibulectomy impairs speech, mastication, swallowing, aesthetics. Reconstruction is essential for functional, aesthetic restoration. Virtual surgical planning (VSP) with patient-specific 3D-printed cutting guides (3D-PCG) improves precision, reduces times. Materials and Methods : Prospective study of patients undergoing segmental mandibulectomy and fibula free flap reconstruction using VSP and 3D-PCG (2024-2025). Preoperative CT-based modelling included mirroring, perforator-guided osteotomies. Custom guides, pre-contoured plates were used. Accuracy assessed at 6 months via cephalometric, 3D analyses ; ischaemia/operative times recorded. Results : Initial 10 patients : 100% flap survival, high accuracy. Mean deviations were 1.4±1.0 mm (fibular length), 4±2° (angular), and 2.8±1.4 mm (3D surface). Mandibular discrepancies measured 2.5±2.0 mm (intercondylar), 1.0±0.8 mm (anteroposterior), and 2.1±1.9 mm (intergonial). Ischaemia, operative times were reduced by 42 and 84 minutes, respectively, compared with conventional methods. Conclusion : VSP with 3D-PCG guides yields precise, reproducible mandibular reconstruction with minimal deviations and shorter operative times.

IS-264 A Novel Intraoperative Bone Marrow Harvesting Technique for Margin Assessment in Oral Cancer

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Clear surgical margins are critical in oral squamous cell carcinoma (OSCC). No standardized intraoperative method exists for quantitative bone margin assessment. This prospective study included OSCC patient involving the mandible underwent surgery between March 2024 and August 2025. After resection, 1cm bone segments were harvested from anterior and posterior margins and marrow was curetted for frozen section (FS), followed by permanent section (PS). 5mm sections were made if marrow comes positive on FS. The inferior alveolar nerve (IAN) and lingual nerve (LN) were also assessed intraoperatively. Concordance between FS and PS evaluated using Cohen's kappa (k). 37 patients were analyzed, yielding 69 bony margins ; five were histologically inadequate. The alveolus was the most common primary site (n=23). FS-PS analysis showed perfect concordance for bony margins (k=1.0) and substantial agreement for IAN and LN (k=0.64). All bone margins showed 1 cm clearance except one anterior margin. Conclusion : This novel bone marrow harvesting technique demonstrates high concordance with final histology and enables quantitative intraoperative margin assessment.

IS-265 A Case Report of Total Lower Lip Reconstruction Using Bilateral Nasolabial Flap : A Sandwich Technique

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The lips are vital for function and are common sites for squamous cell carcinoma. Excision leads to complex defects requiring meticulous reconstruction. The nasolabial flap is preferred for large lip defects due to its reliability, especially in elderly patients with comorbidities. This case highlights the success of a bilateral musculocutaneous nasolabial flap for total lower lip reconstruction. A 56-year-old male with comorbidities presented with an ulcerated lesion involving the entire lower lip. Radical excision and bilateral supraomohyoid neck dissection created a full-thickness defect. Reconstruction used two pedicled musculocutaneous nasolabial flaps (7 cm each) transposed via a sandwich technique. The modiolus was preserved, and a mucosal sling was used for stability. Postoperative recovery was uneventful. The patient maintained oral competence and satisfactory cosmetic results. Functional restoration, including speech and eating, was preserved. The bilateral musculocutaneous nasolabial flap is a simple, reliable, and time-efficient method for total lower lip reconstruction. It provides excellent aesthetic and functional outcomes, making it suitable for elderly patients with comorbidities.

IS-266 Comparing different types of primary closure after partial glossectomy for early tongue carcinoma

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Background : Primary closure is a common reconstructive option for smaller defects following partial glossectomy for early-stage tongue carcinoma. This study aimed to compare speech, swallowing, and quality of life outcomes between different methods of primary closure. Methods : A total of 36 patients undergoing partial glossectomy for early tongue carcinoma were randomized pre-operatively into three groups : horizontal closure, rotational closure, or healing by secondary intention. Functional outcomes, including speech and swallowing, were assessed pre-operatively, at one week, and one month post-operatively using the Speech Perceptual Index, Speech Intelligibility Score, Functional Oral Intake Scale, Speech handicap index and MD Anderson Dysphagia Inventory. Results : There were no statistically significant differences between the three groups in terms of speech, swallowing, or quality of life outcomes across all time points evaluated. Conclusion : For smaller partial glossectomy defects in early tongue carcinoma, the choice of closure technique does not significantly affect speech, swallowing, or quality of life outcomes.

IS-267 Free Flap Reconstruction in Tongue Cancer : 15 Years of Experience

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Background : Tongue cancer is prevalent in Vietnam, with 200-250 annual cases at the Oncology Hospital of Ho Chi Minh City ; ＞60% present advanced. Extensive glossectomy impairs speech and swallowing, requiring immediate free flap reconstruction to restore function and quality of life. Objective : To review 15 years of free flap reconstruction post-glossectomy, focusing on flap selection, and functional outcomes. Patients and Methods : Retrospective series (2010-2025) : hemiglossectomy with thin flaps (radial forearm, lateral arm, medial sural artery perforator) ; near-total/total defects with anterolateral thigh flaps ; total defects with rectus abdominis myocutaneous flaps. Outcomes : flap survival, speech, swallowing, overall survival. Results : Hemiglossectomy (n＝93) : RFF(n＝30) : 93% survival, speech 78%, swallowing 6. 8/7 ; LAF (n＝30)/MSAP (n＝33) : 100% survival, similar function. Near-total/total (n＝47, ALT) : 95. 6% survival, 100% communication, 95% oral intake, 3-year OS 51%. Total (n＝30, RAM) : 100% survival, 97% communication, 67% oral intake, 2-year OS 60%. Conclusion : Free flaps yield high survival and effective speech/swallowing recovery, establishing them as the standard in tongue reconstruction.

IS-268 The Impact of Hybrid Therapy on Langerhans Cell Histiocytosis of the Mandible in an Older Male.

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Case presentation : A 75-year-old man presented with a 2-month history of painful swelling in the left mandible. CT and MRI demonstrated an osteolytic lesion with cortical thinning and an adjacent soft tissue mass. Systemic imaging revealed no additional lesions. Biopsy showed Langerhans-type cells positive for CD1a and S-100, confirming single-system, single-site mandibular Langerhans cell histiocytosis. Discussion : In adults, single-site mandibular Langerhans cell histiocytosis is rare, and standard treatment is not established. We selected a hybrid approach of limited intraoral curettage with preservation of weakened bone, combined with repeated perilesional dexamethasone injections, to reduce treatment burden while controlling local disease. Conclusion : Hybrid therapy using conservative curettage and local steroid injections achieved rapid pain relief, mucosal healing, and radiographic bone regeneration without recurrence at 10 months. This strategy may represent a safe and effective organ-preserving option for localized mandibular Langerhans cell histiocytosis in elderly patients.

IS-269 Oncological Outcome following 3-Drug Neo-Adjuvant Chemotherapy Initiated "Triple Regimen" for Selected Subset of cT4b Bucco-Alveolar Carcinoma with Supra-Notch Infratemporal Fossa Extension.

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Background : Locally advanced bucco-alveolar complex carcinoma (T4b) with supra-notch (supra-sigmoid notch) infratemporal fossa (ITF) extension is an oncological challenge with poor outcome. We analyzed oncological outcome in patients managed with 3-drug neo-adjuvant chemotherapy (NACT) followed with surgical compartmental resection and adjuvant radiotherapy/Chemotherapy-RT (RT/CTRT), i.e., "Triple regimen." Materials and Methods : Thirty-three cases of T4b bucco-alveolar complex carcinoma with supra-notch ITF extension were included from June 2009 to January 2017. Patients received 3-Drug NACT for 2-3 cycles every 21 days. Response to NACT was assessed with clinical examination, improvement in symptoms (like improved mouth opening etc.,), and Response Evaluation Criteria in Solid Tumors (RECIST) criterion. Patients showing stable disease and responders on NACT underwent compartmental surgical resection with complete ITF clearance followed by adjuvant RT/CTRT. Data were analyzed using STATA 13 and Kaplan Meir graphs for survival rates. Results : Thirty-one patients (93.9%) showed response on NACT and subsequently went ahead with surgery. Clinical response according to RECIST criterion and subjective clinical improvement of more than 50% was noted in 18 cases while.

it was <50% in 13 cases. Seventeen of the 31 patients were disease free at last follow-up. There were no recurrences in ITF. The 3-year disease-free survival and disease-specific survival were 69% and 73%, respectively. Conclusion : Three-drug NACT followed by surgical resection in selected cases who show response to NACT with adjuvant chemoradiation provides a realm of hope for these borderline resectable T4b supra-notch cases.

Key words : Bucco-alveolar cancer, compartmental resection, infratemporal fossa, neo-adjuvant chemotherapy, oral cancer

IS-270 Vocal Cord Palsy post chemoradiation in Head and Neck Cancer

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Chemoradiotherapy (CRT) offers high cure rates though is associated with both acute and late toxicities, including vocal cord palsy (VCP), a rare, underreported but potentially life-threatening complication. A comprehensive literature search of Cochrane, EMBASE, PubMed, and Google identified 65 articles, of which 24 were included for analysis of radiation- and chemotherapy-induced VCP. The incidence of radiation-induced cranial neuropathy ranges from 1-9%, most commonly affecting the vagus and other lower cranial nerves, with damage typically irreversible. Nasopharyngeal carcinoma is most frequently associated with radiation-induced VCP, often presenting 2-10 years after treatment. Bilateral palsy is more common, with left-sided involvement predominating in unilateral cases. Disease recurrence must be excluded before attributing VCP to radiation. Chemotherapy-induced VCP is usually bilateral, occurs during treatment, and is often reversible upon drug cessation. Vocal cord palsy following CRT represents a shift from cure to challenge. Routine documentation and vigilant follow-up are essential to ensure early recognition and appropriate management.

IS-271 Paradigm Shift : Type Va Cordectomy for Early Glottic Cancer With Anterior Commissure Involvement

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Objective : To evaluate oncological and functional outcomes of transoral laser microsurgery (TLM) using Type Va cordectomy in early glottic squamous cell carcinoma with anterior commissure involvement. Methods : A retrospective review of 41 patients with T1a/T1b glottic carcinoma involving the anterior commissure treated with Type Va cordectomy between May 2013 and April 2023 was performed. Anterior commissure involvement was classified as AC1–AC3. Outcomes assessed included recurrence, survival, local control, and voice. Results : Mean age was 59. 6 years ; 56. 1% had T1a and 43. 9% T1b tumors. AC involvement was AC1 in 58. 5%, AC2 in 29. 3%, and AC3 in 12. 2%. Recurrence occurred in 29. 3%, significantly higher in T1b tumors and AC3 disease ($p = 0.001$). Five-year disease-free survival was 70.7%, with ultimate local control of 90. 24%. Laryngeal preservation and disease-specific survival were 100%. Conclusion : Type Va cordectomy via TLM is an effective organ-preserving option for early glottic cancer with anterior commissure involvement.

IS-272 Withdrawn

IS-273 Presentation of Complex Laryngotracheal Surgeries using CT-based 3D models and 3D printing

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Slide laryngotracheopexy for cricotracheal stenosis and extended partial laryngectomy with tracheopexy for T2–T3 glottic tumors are technically demanding procedures requiring meticulous preoperative planning. Beyond conventional imaging and endoscopy, CT-based three-dimensional (3D) modeling and additive manufacturing enable the creation of patient-specific digital and 3D-printed laryngotracheal models, allowing detailed spatial visualization of complex airway anatomy, including pre- and postoperative configurations. We present a complete workflow in which CT-derived virtual models and corresponding 3D-printed replicas of the larynx and trachea were created through manual segmentation, digital sculpting, and refinement, then applied for preoperative planning and surgical team training. The models supported anatomical assessment, surgical rehearsal, and educational use. Patient-specific 3D models served as high-fidelity anatomical representations, facilitating preparation and understanding of complex surgical steps. This experience demonstrates the feasibility and potential clinical value of CT-based 3D modeling and printing in advanced laryngotracheal surgery.

1S-274 Chemoradiotherapy vs Radiotherapy for T2N0 Laryngeal Cancer : A Multicenter Retrospective Analysis

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Objectives : T2N0 laryngeal cancer has been recommended to be treated with radiotherapy (RT) as the standard treatment in clinical guidelines ; however, chemoradiotherapy (CRT) is often employed in clinical practice. The objective of this study was to investigate the difference in treatment efficacy and recurrence patterns between RT and CRT in patients with cT 2 laryngeal cancer. Patients and Methods : This multicenter, retrospective study spanning 13 hospitals in northern Japan (2014–2023) investigated treatment efficacy and recurrence patterns between radiotherapy (RT) and chemoradiotherapy (CRT) for cT2N0 laryngeal cancer. Results : We analyzed 377 patients treated with RT or CRT. RT patients were significantly older, with fewer supraglottic and more glottic tumors ($p<0.05$). Recurrence sites/rates were similar. CRT improved RFS (86.9% vs. 74.2%, $p<0.05$), but local control rates were comparable (CRT : 89.9%, RT : 82.8%, $p=0.19$). Conclusion : For cT2N0 laryngeal cancer, adding chemotherapy to RT improves RFS. Since LC was unchanged, this RFS gain likely results from reducing regional nodal recurrence and/or distant metastasis.

1S-275 Risk Factors for Thyroid Invasion in Laryngeal Cancer : Reducing Unnecessary Thyroidectomy

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Purpose : Thyroid invasion frequency in advanced laryngeal carcinoma ranges from 1–30%, yet prophylactic thyroidectomy during total laryngectomy is routinely performed. This study identified predictors of thyroid invasion to support selective surgical approaches.

Methods : This cross-sectional study included 139 patients undergoing total laryngectomy with thyroidectomy (2020–2025). Multivariate logistic regression identified independent predictors of histopathologically confirmed thyroid invasion.

Results : Thyroid invasion occurred in only 18% of patients. Significant bivariate associations included diagnosis-to-treatment interval ($p=0.013$), tracheostomy-to-laryngectomy interval ($p<0.001$), T4 stage ($p=0.001$), thyroid cartilage invasion ($p=0.003$), and radiologic thyroid invasion ($p<0.001$). Multivariate analysis identified two independent predictors : tracheostomy-to-laryngectomy interval >2 months (adjusted OR 7.40, 95% CI 1.2–44.1, $p=0.028$) and radiologic thyroid invasion (adjusted OR 55.3, 95% CI 14.3–212.9, $p<0.001$). CT demonstrated 95.6% specificity and 94.8% negative predictive value for thyroid invasion detection.

Conclusions : With 82% of patients showing no thyroid invasion, routine thyroidectomy represents substantial overtreatment. Risk stratification using tracheostomy interval and preoperative CT imaging enables selective thyroidectomy, potentially reducing permanent hypothyroidism while maintaining oncological safety.

Keywords : Laryngeal carcinoma, Total laryngectomy, Thyroid gland invasion, Thyroidectomy, Predictive factors

1S-276 REVISION LARYNGOTRACHEAL RECONSTRUCTION-SURGICAL AND POSTOPERATIVE CHALLENGES

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Aims : Management of laryngotracheal stenosis is a surgical conundrum and immediate post operative period is a testing time. Multilevel stenosis, revision surgeries, and paediatric age group patients represent a special surgical challenge. In this study we assessed the intra operative difficulties faced in revision laryngo tracheal surgeries and challenges faced in immediate post operative management.

Methodology : Patients with laryngo tracheal stenosis, who underwent open laryngo tracheal surgery at our hospital from April 2022 to April 2023 were included in the study. Surgical outcomes were measured in terms of successful decannulation and no airway support post operatively.

Results : 11 patients were included in the study, with 4 paediatric and 7 adults. Two patients had congenital aetiology for stenosis. Coastal cartilage graft and laryngo-tracheal Mold stent were used for glottic and sub glottic expansion. One patient required post operative emergency tracheostomy. Revision surgeries had increased incidence of granulation tissue formation.

Conclusion : Meticulous pre operative work up and post operative care is required in airway re construction surgeries. Anastomotic complications are more commonly seen in revision surgeries. Multi-disciplinary team management of these cases is very essential for establishment of adequate airway, good functional outcomes and to improve patients' quality of life.

IS-277 Primary Laryngeal Cryptococcosis : A Diagnostic Challenge

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Primary laryngeal cryptococcosis is a rare fungal infection and is often difficult to diagnose. An 85-year-old man presented with persistent hoarseness and dysphagia. Upper gastrointestinal endoscopy performed six months suggested possible esophageal candidiasis ; however, no definitive diagnosis or treatment was established. Subsequent laryngoscopic examination revealed a whitish laryngeal lesion, raising suspicion of malignancy, tuberculosis, and other infectious diseases. Serum cryptococcal antigen testing was negative. Histopathological examination of a biopsy demonstrated encapsulated yeast-like organisms, leading to a diagnosis of laryngeal cryptococcosis. Systemic evaluation revealed no involvement of other organs, and the lesion was considered primary to the larynx. Treatment with fluconazole for six months resulted in complete resolution of the symptoms. This case highlights that laryngeal cryptococcosis can occur in immunocompetent elderly patients and may present with negative serum cryptococcal antigen results. Infectious etiologies should be considered in addition to malignancy when evaluating atypical laryngeal lesions with prolonged hoarseness.

IS-278 Endoscope-assisted Transoral Surgery for Pharyngolaryngeal Vascular Malformations : A Case Series

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Background : Sclerotherapy is often the first-line for pharyngolaryngeal vascular malformations ; however, transoral endoscopic approaches is gaining attention as function-preserving surgical options. This study evaluated outcomes of endoscope-assisted transoral surgery.

Method : A retrospective review included patients undergoing transoral endoscopic resection for vascular malformations between July 2023 and July 2025.

Results : Six cases (4 males ; mean age 55. 9 ± 10. 7 years) were included. Lesions were 1 arteriovenous malformation (AVM) and 5 venous malformations at the tongue base (n = 1), larynx (n = 1), and hypopharynx (n = 4). All procedures used the FK-WO retractor. Mean operative time and blood loss were 144. 7 ± 51. 3 min and 11. 7 ± 18. 6 mL, respectively. Two cases with ≥20 mL bleeding were controlled with endoscopic clips. The AVM case had preoperative embolization and prophylactic tracheostomy. Oral intake resumed at 3. 8 ± 2. 9 days, and hospital stay averaged 10. 3 ± 7. 0 days. No postoperative hemorrhage or recurrence occurred over 3 months-2 years of follow-up.

Conclusion : Endoscope-assisted transoral surgery appears safe and effective with minimal complications and favorable recovery.

IS-279 Autonomic Dysregulation in Supragastric Belching and Treatment Effect of Cognitive Behavior Therapy

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Supragastric belching (SGB) is a behavioral condition in which air is voluntarily but subconsciously drawn into and expelled from the esophagus. It is increasingly observed in patients with upper GI and laryngopharyngeal symptoms. SGB has been linked to autonomic dysregulation, yet their relationship had not been well studied. We aim to evaluate the symptoms caused by SGB, and discuss about the effect of cognitive behavioral therapy (CBT). Adult patients with SGB identified by objective acid monitoring/esophageal manometry were included. GI, laryngeal symptoms, and psychosocial comorbidities were evaluated using standardized questionnaires. The symptom severity of SGB was recorded before and after CBT. Autonomic function was assessed using heart rate variability, skin conductance, finger temperature, and muscle activity. 120 patients with SGB were recruited. After CBT, significant reduction in belching frequency, intensity, and better mental well-being was observed. Those showing better adherence to CBT experienced greater improvement of both physical and psychological symptoms. Overall, these findings show the importance of multidisciplinary treatment for patients with SGB.

IS-280 Adult-onset Laryngomalacia A Case Series

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Abstract : Laryngomalacia is conventionally known to be a disorder of neonatal period with congenital origin. However, presentation in adults is being in teasingly recognised, with features typically involving collapsing arytenoids and epiglottis, omega shaped epiglottis and short aryepiglottic folds. Adult onset Laryngomalacia and laryngeal dystonias often present a diagnostic challenge, as both are subject to neurological and aerodynamic factors. Here we have discussed 4 adult cases with laryngomalacia with no significant prior history. Case 1 had idiopathic origin. Case 2 had neurological origin. Case 3 had a large thyroid swelling compressing the trachea and case 4 was a case of carcinoma of larynx who had undergone radiation. Arytenoids and Ary-epiglottic folds were more commonly involved, while epiglottis involvement was seen in only 1 case. All the cases were treated surgically and responded well to surgery. This throws light upon the mechanisms of Laryngomalacia and it's classification. Based on etiology, it could either be on Primary origin or Secondary (to other pathology). This classification aims to develop consesus for the treatment.

IS-281 The role of regulatory T-cell subsets in the pathogenesis of IgG4-related disease

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Background : IgG4-related disease (IgG4-RD) is characterised by tumefactive lesions, fibrosis, high serum levels of IgG4 and infiltration of IgG4-positive plasma cells. However, the contribution of regulatory T-cell (Treg) subsets remains unclear. Methods : Peripheral blood mononuclear cells (PBMCs) and lymphocytes from the affected submandibular glands of patients with IgG4-RD were analysed. Treg cells ($CD4^+CD25^{hi}CD127^{lo}CD45RA^-Foxp3^+$) were classified as Treg1 ($CCR4^+CCR6^-CXCR3^+$), Treg2 ($CCR4^+CCR6^-CXCR3^-$) and Treg17 ($CCR4^+CCR6^+CXCR3^-$) (Halim*et al.*, Cell Reports, 2017). The frequencies of the subsets and their correlations with clinical parameters were assessed. Results : Compared to the control group, patients with IgG4-RD exhibited significantly higher proportions of Treg1 and Treg2 cells in their blood and submandibular glands. However, there was no significant difference in the proportion of Treg17 cells. Treg2 frequency correlated positively with serum IgG4 levels, but there was no such correlation for Treg1.Conclusions : Expanded Treg2 cells may drive B-cell IgG4 class switching and contribute to IgG4-RD, suggesting Treg2 as a therapeutic target.

IS-282 Improved Imaging of Nasal and Pulmonary Pathogens Using the Near-Infrared Substrate AkaSuke

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Bioluminescence imaging (BLI) enables noninvasive tracking of respiratory pathogens in vivo, but the conventional substrate D-luciferin (560 nm) is strongly attenuated by tissues, limiting detection of nasal and pulmonary infection sites in larger rodents. AkaSuke, a near-infrared-emitting analog (680 nm), provides improved tissue penetration. Using RSV-Luc 5, we optimized AkaSuke dosing and administration routes in BALB/c mice and Syrian hamsters. High doses caused nonspecific hepatic luminescence, whereas low optimized doses produced clear nasal and lung signals, outperforming D-luciferin. Intraperitoneal delivery yielded stable luminescence without disturbing the nasal microenvironment, allowing parallel nasal lavage sampling and mucosal immune analysis. Because AkaSuke does not rely on virus-specific vectors, it can be applied to diverse respiratory pathogens, including wild and recombinant viruses and bacteria. Its near-infrared emission permits continuous visualization from the nasal cavity to the lungs, enabling real-time assessment of pathogen spread and therapeutic effects. AkaSuke is therefore a highly advantageous substrate for upper airway infection models.

IS-283 Intraductal infusion of normal saline and steroid for xerostomia in NPC patients

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AIM − This study evaluates safety and effectiveness of intraductal infusion for treating xerostomia caused by radiotherapy for nasopharyngeal carcinoma (NPC). METHOD − In this double-blinded, prospective cohort study, about 30 NPC survivors with xerostomia will be randomly assigned to two groups: steroid infusion or saline infusion. Bilateral salivary ducts will be dilated and infused with less than 3mL solution via a peripheral catheter. Subjective xerostomia will be assessed using a validated inventory, and objective salivary flow will be measured before procedure and up to 3 months. Adverse events and effectiveness will be closely monitored. Data will be analyzed for group comparisons. RESULTS − 34 patients were recruited in total. 14 patients were assigned to steroid infusion, while 18 patients were assigned to normal saline infusion. No adverse effects were observed up to 3 months. Improvement in xerostomia was observed in both groups of patients. CONCLUSION − Intraductal infusion of normal saline and steroid is an effective and safe treatment option for xerostomia caused by radiotherapy in patients of nasopharyngeal carcinoma.

IS-284 Withdrawn

IS-285 Trends and regional variation in C1 inhibitor testing for hereditary angioedema in Japan

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Background: Hereditary angioedema (HAE) is a rare disease, and many patients experience substantial diagnostic delay. Limited awareness of HAE among physicians and patients may contribute to missed or delayed diagnoses. However, real-world patterns of C1 inhibitor (C1-INH) testing in Japan have not been well described.

Methods: Using the National Database (NDB) Open Data of Japan, we analyzed the annual number of C1-INH tests from fiscal years 2015-2023 in outpatient and inpatient settings. We described temporal trends and calculated prefecture-level standardized claim ratios (SCRs) to assess regional variation.

Results: From 2015 to 2023, the annual number of C1-INH tests increased from 4,464 to 8,939 in outpatients and from 1,087 to 1,575 in inpatients. In fiscal year 2023, Prefecture-level SCRs ranged from 46 to 144, indicating substantial regional variation in C1-INH testing.

Conclusions: C1-INH testing has increased over the past decade in Japan, but marked regional variation persists. We will also present preliminary findings on trends in HAE-related questions in the otorhinolaryngology board certification examination as an additional proxy for physician knowledge.

IS-286 Cloud-based vs Local LLMs on the Japanese Otolaryngology Board Exam : Impact of RAG

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Large language models (LLMs) are rapidly improving and are increasingly explored for medical applications such as clinical note drafting, discharge summaries, differential diagnosis suggestions, and literature/guideline summarization. However, entering patient information into commercial cloud-based models is generally not acceptable, and such models may not be optimized for Japanese clinical guidelines. Locally deployed LLMs that keep data within an institution are therefore desirable.

We compared several commercial LLMs with locally deployable LLMs using questions derived from the Japanese otolaryngology board certification examination. We also evaluated whether retrieval-augmented generation (RAG), which grounds responses in curated references, improves answer accuracy and reduces hallucinations. Outcomes included correctness, clinical appropriateness, and consistency with Japanese guidelines.

Local deployment offers advantages in privacy and governance, while RAG may improve reliability by providing evidence-based grounding, especially for local models. Secure, guideline-aligned LLM workflows could enable safer adoption of LLMs in otolaryngology without compromising patient confidentiality.

IS-287 Diagnostic Accuracy of AI Models in CT Interpretation of Chronic Rhinosinusitis : A Systematic Review

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Background : Chronic rhinosinusitis (CRS) is a prevalent and burdensome condition frequently evaluated using computed tomography (CT). The use of artificial intelligence (AI) in CRS imaging is expanding, yet comprehensive evaluation of its diagnostic accuracy remains limited. Objective : To systematically review and compare the performance of AI models in CT interpretation of CRS, focusing on sensitivity, specificity, accuracy, and AUC. Methods : Following the PRISMA-ScR framework, six databases were searched for studies evaluating AI, machine learning, or deep learning models in CRS diagnosis. Data were extracted using the PICOTS approach. Results : Out of 1, 502 screened articles, six studies with 2, 178 patients were included. Most used convolutional neural networks (CNNs) trained on CT scans. Sensitivity ranged from 11. 1-98. 1%, specificity 86. 4-98. 7%, and accuracy 63. 6-98. 4%. Variability in methods and standards limited comparability. Conclusion : AI models show promise for CRS diagnosis using imaging data, but heterogeneity and limited prospective validation restrict clinical use.

IS-288 Artificial Intelligence assisted management of Allergic rhinitis in Singapore

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Project ENTenna is Singapore's first Ministry of Health funded national AI project for ENT conditions. At Tan Tock Seng Hospital it supports patients with allergic rhinitis, which affects about 500 million people worldwide. ENTenna uses an AI chatbot to collect weekly symptom scores and track medication use, data that are rarely recorded for this disease in Singapore. Early results show medication adherence of 81. 9 percent among ENTenna patients, up from a global baseline of 55. 8 percent. Higher adherence in our cohort is significantly linked to better symptoms, with 4. 1 percent more patients each month reporting that their symptoms no longer affect daily life. At Ng Teng Fong General Hospital, ENTenna generated savings of about 167, 000 JPY per patient, with a 45 percent higher chance of discharge and 0. 63 fewer visits per year versus matched controls. Applying these outcomes to our current TTSH cohort suggests minimum annual savings of 12. 8 million JPY and 500 fewer patient visits.

IS-289 Early Life Factors and Genetic Interactions in Allergic Rhinitis : A Genome-Wide Study

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Background : Early life factors influence allergic rhinitis (AR) development, but their relationships and genetic mechanisms remain unclear. Methods : Using data from the UK Biobank (UKB) and West China Hospital (WCH), we assessed associations between nine early life factors and AR using multivariate logistic regression. A genome-wide gene-environment interaction study (GWGEIS) explored interactions and polygenic risk scores (PRS). Results : In both cohorts, long-term/recurrent antibiotic use in childhood/adolescence (LTRAU) (UKB : OR = 1. 49, P < 0. 001 ; WCH : OR = 2. 18, P < 0. 001) and cesarean delivery (UKB : OR = 1. 26, P = 0. 0014 ; WCH : OR = 1. 47, P = 0. 008) were independent AR risk factors. The cesarean-AR association was specific to females with AR onset before age 16, while LTRAU remained significant for later-onset AR. GWGEIS identified an interaction between the ATE1 gene and LTRAU (rs4752620, P = 2. 51E-8). PRS from GWGEIS was associated with AR risk (OR = 1. 06, P = 0. 038). Conclusions : Early life factors, particularly LTRAU, and genetic interactions influence AR risk, informing prevention and treatment strategies.

IS-290 Morphology-based machine learning for classification of real-world cedar and cypress pollen

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Background : Seasonal allergic rhinitis due to Japanese cedar (Cryptomeria japonica) and cypress (Chamaecyparis obtusa) pollen is common in Japan. Routine Durham slides for community monitoring often include debris and burst pollen, hindering automated identification.

Methods : Images from Durham slides collected at several sites in Nagano Prefecture were captured by optical microscopy. Pollen grains were automatically detected and cropped. Features for size, shape, and internal texture were extracted ; redundancy was reduced by ablation analysis. A support vector machine classifier was trained and tested using nested stratified cross-validation.

Results : We analyzed 1, 480 images (intact pollen, burst pollen, and debris). The model achieved a macro F1 score of 0. 825. Size features were most influential, and shape features helped separate intact from burst pollen.

Conclusion : Interpretable classification from standard microscopy images may support regional pollen surveillance relevant to otolaryngology practice.

IS-291 Exercise-Induced Rhinitis in Adolescent Swimmers : Prevalence and Associated Factors

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Background : Exercise-induced rhinitis (EIR) is characterized by nasal symptoms after exercise with a >20% reduction in peak nasal inspiratory flow (PNIF). It commonly affects athletes, especially swimmers.

Objective : To determine the prevalence, contributing factors, and inflammatory profile of EIR in adolescent swimmers.

Methods : This cross-sectional study included 76 adolescent swimmers from swimming clubs. Participants underwent medical interviews, ENT examinations, PNIF measurements, and nasal mucosal scraping before and after swimming.

Results : The prevalence of EIR was 38. 2%. Rhinorrhea and sneezing were the most common symptoms. Nasoendoscopy showed eutrophic inferior turbinates, pink mucosa, and serous secretion in the EIR group. Post-exercise neutrophil counts increased in the EIR group, although not statistically significant. Female sex was significantly associated with EIR, while allergic rhinitis, age, and swimming duration were not.

Conclusion : Early recognition of EIR may facilitate timely management and help optimize athletic performance in swimmers.

IS-292 Anterolateral craniofacial resection for recurrent Ewing's sarcoma of the maxillary sinus

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Background : Ewing sarcoma (ES) is a small round-cell tumor typically arising in bones. While treatment includes surgery, chemotherapy, and radiotherapy, recurrent ES invading the orbit or skull base is challenging to manage. Case : An 18-year-old female was diagnosed with right maxillary sinus ES at year X-5, receiving chemotherapy and proton beam therapy. Local recurrence occurred at year X-1 around the right maxillary sinus ; she underwent neoadjuvant chemotherapy, total maxillectomy, and free flap transfer. At year X, second recurrence extended to the right orbit and skull base, causing severe headache and visual loss. After multidisciplinary discussion, anterolateral craniofacial resection with orbital exenteration and free flap transfer was performed uneventfully. Discussion : Orbit- and skull base-involving resections are highly invasive with major functional and cosmetic deficits. However, this patient's severe orbital pain resolved post-surgery. Surgical indications for recurrent ES require careful discussion with patient and family, weighing invasiveness against symptom relief.

IS-293 Nasal Septal Tumors : Diagnostic Pitfalls and Endoscopic Surgical Desicion-Making

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Background : Nasal septal tumors are rare and heterogeneous lesions. Due to their low incidence, clear diagnostic and management consensus remains lacking. Objective : To describe diagnostic challenges and endoscopic surgical decision-making in nasal septal tumors through a case series. Methods : Two cases of nasal septal tumors were evaluated. Surgical strategies were individualized based on clinical behavior, anatomical involvement, and intraoperative findings. Results : Case 1 was a 41-year-old woman with five-year history of progressive left-sided nasal obstruction. Endoscopic tumor resection with septal preservation was performed based on indolent clinical behavior. Histopathology revealed squamous cell carcinoma, and the patient subsequently underwent definitive surgery followed by adjuvant radiotherapy. Case 2 was a 49-year-old man with one-year history of left nasal obstruction. Endoscopic excision was performed, and histopathology confirmed a nasal septal schwannoma with favorable outcome. Conclusion : Nasal septal tumors pose diagnostic and surgical challenges. In the absence of established consensus, individualized endoscopic management remains essential.

IS-294 Beyond Benign Polyposis : An Elusive Squamous Cell Carcinoma with Otic Extension

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Sinonasal inverted papilloma is a rare Schneiderian epithelial tumor noted for its locally aggressive behavior, propensity for recurrence, risk of malignant transformation, and tendency toward multifocal involvement. With advances in the medical armamentarium, including improved imaging and histopathological techniques, cases of temporal inverted papilloma have increasingly been recognized. To date, only 32 cases of inverted papilloma involving the temporal region have been reported in the literature worldwide. We report a case in which a lesion initially presumed to be a benign sinonasal tumor in a young patient posed a diagnostic challenge, necessitating multiple surgical interventions before the final diagnosis of poorly differentiated squamous cell carcinoma with temporal involvement and intracranial extension was established. The patient received radiotherapy, resulting in significant tumor reduction, and is currently under long-term follow-up. In conclusion, sinonasal inverted papilloma exhibiting synchronous or metachronous atypia should be managed aggressively, following principles similar to those applied in oncological treatment.

IS-295 Biphenotypic Sinonasal Sarcoma : First Southeast Asian Multicenter Case Series

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Background : Biphenotypic sinonasal sarcoma (BSNS) is a rare, low−grade spindle cell sarcoma characterized by *PAX3* or *PAX7* gene fusions with no formal management consensus. We present the first Southeast Asian multicenter case series of BSNS, adding regional context to existing literature. Cases : 5 patients presented with sinonasal masses, predominantly with nasal obstruction and hyposmia. Diagnosis was confirmed via histology and molecular identification of *PAX3* : : *MAML3* or *PAX3* : : *WWTR1* fusions. Management included endoscopic and craniofacial resections. Cases with suspicious margins had adjuvant radiotherapy or repeat resection, while one patient opted for surveillance. At follow−up, all patients remained disease−free. Conclusion : BSNS is a rare tumour with a predilection for the skull base and challenging surgical margins. While surgical excision remains the mainstay of treatment, adjuvant radiotherapy is a viable option for cases with close margins. BSNS in Southeast Asia mirrors global clinicopathological and molecular features, highlighting diverse strategies ranging from aggressive multimodal therapy to active surveillance.

IS-296 Challenges in Management of Locally Advanced Sinonasal Chondrosarcoma and Literature Review

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Sinonasal chondrosarcoma is an extremely rare cartilage−forming mesenchymal malignant tumour. Its initial symptoms are often vague and typically present late, usually with locally advanced disease. Treatment options primarily aim for complete surgical removal, with post operative radiotherapy and rarely chemotherapy. In this presentation, we focus on the management of locally advanced disease, particularly in cases with orbital involvement. A literature review of updated management options will also be discussed.

IS-297 'Wabi−Sabi' of the Sinonasal tract : Embracing adenoid cystic carcinoma of the nasal cavity

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Adenoid cyctic carcinoma is no outcast to the world of malignancies. With a contribution of less than 1% in the head and neck cancer, it commonly occurs in the salivary glands and parotids, and infrequently seen in the paranasal sinuses and the nose. Although rare, its occurrence has been reported over the years with evolution in its treatment modality. The prognosis entirely depends on the extensive tumour bulk, aided by the histological subtype, and ultimately the available treatment options. Here we report a case of adenoid cyctic carcinoma in a 25 year old, female, with no underlying comorbids previously. With nasal symptoms resembling a simple allergic rhinitis and worsening over a molar tooth infection, it masked the possibility of an invasive malignancy. Her young age, being post partum at 3 months and breastfeeding period, pushed the odds to favour her to give her a second chance at life itself.

IS-298 Impact of Laser-assisted resection and lingual nerve block as preemptive analgesia in tongue cancers

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Tongue cancer resection triggers intense nociceptive stimulation & causing haemodynamic instability and increased opioid use. Pre-emptive lingual nerve block may attenuate afferent signaling, while laser-assisted resection may minimize sympathetic activation. In this prospective study, 65 patients undergoing surgery for early stage tongue cancer were allocated to receive a lingual nerve block or no block and were additionally stratified by surgical energy modality (laser vs cautery). Intraoperative HR, SBP/DBP, MAP, rescue opioid usage, and 6-hour postop pain scores were analysed. The block group demonstrated significantly lower HR, SBP, DBP, and MAP during resection, reduced rescue morphine use (0.875 vs 2.545 mg), and lower postoperative VAS scores ($p = 0.023$). Laser excision produced more stable hemodynamics than cautery, with significantly lower SBP, DBP, and MAP during nociceptive peaks. Pre-surgical lingual nerve block and laser resection both enhance hemodynamic stability, while the nerve block additionally improves analgesia and reduces opioid requirements in tongue cancer surgery.

IS-299 Impact of margin-to-depth of invasion ratio on outcomes in locally advanced oral cancer

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Objectives: To evaluate the prognostic value of the margin-to-depth of invasion ratio (MDR) in patients with locally advanced oral squamous cell carcinoma (LAOSCC) treated with surgery and adjuvant concurrent chemoradiotherapy (CCRT). Methods: We retrospectively analyzed 422 LAOSCC patients. MDR was defined as the ratio of the closest surgical margin to depth of invasion. Survival outcomes were assessed, and the optimal MDR cutoff was determined using X-tile analysis and validated by cross-validation. Results: An MDR cutoff of 0.35 optimally stratified survival outcomes. Patients with MDR ≥ 0.35 showed significantly superior 5-year OS (66.1% vs. 47.6%), CSS (77.5% vs. 57.4%), and RFS (71.5% vs. 53.8%) compared with those with MDR < 0.35 (all $p \leq 0.001$). Low MDR remained an independent adverse prognostic factor for OS, CSS, and RFS on multivariate analysis. Notably, MDR retained prognostic significance even among patients with adequate surgical margins (≥5 mm). Conclusion: MDR is a robust prognostic marker in surgically treated LAOSCC and may refine postoperative risk stratification.

IS-300 Development and Validation of a Quantitative Assessment Task for Oral Cancer Resection

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Background: High-quality oral cancer resection is vital for patient outcomes; however, existing simulators often lack electrosurgical compatibility or objective feedback. We developed a novel simulation task using a plant-derived material to provide quantitative assessment of surgical skills and evaluated its validity. Methods: The task utilized a plant-derived material compatible with electrosurgery. Skill was quantified by margin-error distance and tumor-bed carbonization. Validity was assessed via questionnaires from 10 experts and a comparative study between 5 experts and 12 novices, each performing the task for quantitative evaluation. Results: Experts highly rated the model's replication and the relevance of the quantitative metrics. Internal consistency was strong. Quantitatively, experts significantly outperformed novices, demonstrating smaller margin errors, lower carbonization, shorter resection times, and fewer grasping attempts. Conclusion: This simulation task provides a valid, quantitative evaluation of oral cancer resection skills. Its implementation may accelerate early skill acquisition and enhance oncologic safety in clinical practice.

IS-301 Tumor Growth Kinetics and the Biological Cost of Treatment Delay in Oral Squamous Cell Carcinoma

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Biological impact of treatment delay in oral squamous cell carcinoma (OSCC) is not adequately quantified. This study evaluated tumour growth kinetics and tumour volume doubling time (TVDT) during pre-treatment delay and examined their association with stage migration and survival. From July 2020 to December 2023, 483 treatment-naïve OSCC patients underwent two or more preoperative imaging studies performed at least 3 weeks apart (followed Schwartz model). Survival outcomes were analysed using Kaplan-Meier and Cox hazards models. Median interval between imaging studies was 7.1 weeks (IQR 5.9-9.4), median GTV increased from 12.9 cm^3 to 19.4 cm^3, median growth rate is 7.3% per week and a TVDT of 7.9 weeks. Tongue tumours demonstrated the fastest growth (9.6% per week; TVDT 6.2 weeks). Stage migration was observed in 30% of patients. At a median follow-up of 25 months, the 2-year overall survival rate was 67%. Patients with TVDT ≤8 weeks showed significantly poorer survival than those with longer TVDT (58% vs 74%, $p=0.002$). On multivariable analysis, short TVDT, treatment delay >8 weeks, advanced T/N category, and perineural invasion were independent predictors of worse outcomes.

IS-302 Postoperative Adjuvant Therapy on Survival in Oral Squamous Cell Carcinoma : A Matched Study

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This retrospective study (time period 2017-2021) aims to evaluate the impact of missed adjuvant therapy (RT/CTRT) on survival (OS/DFS) of oral squamous cell carcinoma patients with Kaplan-Meier analysis. Using 1 : 2 propensity score matching based on prognostic variables (tumour stage, nodal status, LVI, PNI, ENE, depth of invasion, and gender), 95 patients who missed RT/CTRT (cases : Group 1) were matched with 172 who completed it (controls : Group 2). Group 1 had a median OS of 13 months, with 3-year and 5-year OS of 32% and 31%, respectively, versus 73% and 71% in Group 2 ($p<0.001$). Median DFS was 5.4 months in Group 1, with 3-year and 5-year DFS of 26% and 23%, compared to 66% and 61% in Group 2 ($p<0.001$). Early-stage patients had higher survival with RT/CTRT (3-year OS : 80% vs. 45%, $p<0.001$). Late-stage patients also benefited but showed poorer survival (3-year OS : 55% vs. 28%, $p<0.001$). Nodal analysis showed better survival (5-year OS, $p<0.001$) in Group 2 across all categories : N0 (75% vs 50%), N+ENE- (60% vs 30%), and N+ENE+ (40% vs 15%). Qualitative insights revealed barriers to RT/CTRT completion may include patient-related, clinical, socioeconomic, and medical factors.

IS-303 Rising Incidence of Early-Onset Oral Squamous Cell Carcinoma in Young Females

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Background and Aim : Oral squamous cell carcinoma (OSCC) has traditionally shown male predominance ; however, recent trends suggest an increasing incidence among younger females. This study aimed to evaluate age- and gender-related demographic changes and prognostic implications in OSCC. Materials and Methods : A retrospective analysis was conducted on 245 patients diagnosed with OSCC who presented to the Department of Head and Neck Oncology at Saptarishi Cancer Centre, Jabalpur, India. Demographic data were retrieved from medical records following institutional ethical approval. Patients were stratified by age and gender, and statistical analysis was performed with significance defined as $p<0.05$. Results : A statistically significant increase in OSCC incidence was observed among female patients younger than 25 years. Variation was also noted among females older than 35 years. Compared with males, younger female patients demonstrated poorer prognostic trends.Conclusion : An emerging rise of early-onset OSCC in females was observed, possibly related to changing tobacco and lifestyle habits, highlighting the need for early diagnosis and preventive strategies.

IS-304 Functional surgery for vestibular schwannoma guided by nerve monitoring under exoscope

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More than half of cases with vestibular schwannomas can lead to severe hearing loss in the natural course of the tumors. To prevent progression of hearing loss, hearing-preservation surgery can be an option, especially for enlarging tumors in younger patients and for patients hoping for hearing preservation. However, the hearing preservation rate for surgeries is generally 50% on average, and this low rate has led to an increase in wait-and-see cases, with the consequence of progression to severe hearing loss. Our team has performed more than 100 cases of hearing preservation surgery for vestibular schwannoma over the last 10 years, and the recent hearing preservation rate has reached 70-80%, with some cases of hearing improvement. We have improved our surgical method by introducing new intraoperative ABR and DNAP criteria for hearing preservation, as well as exoscope- and endoscope-assisted tumor removal via retrolabyrinthine or middle cranial fossa approaches. In this presentation, we will introduce and discuss our tips for hearing preservation.

IS-305 Temporal Bone Inflammatory Myofibroblastic Tumor with Intracranial Recurrence After Surgery

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Inflammatory myofibroblastic tumors (IMTs) are rare, intermediate-grade neoplasms with potential for recurrence and occasional metastasis. Their pseudosarcomatous appearance and inflammatory nature often lead to misdiagnosis as infection or malignancy. IMTs rarely involve the head and neck, and temporal bone cases are exceptional. We report a case of a 61-year-old female presenting with sudden facial palsy, otalgia and a temporal bone mass on imaging, with subsequent surgical excision and histopathology proving IMT. She remained disease-free for five years on low-dose methotrexate and prednisolone, until cessation of therapy was followed by headaches and pulsatile tinnitus. MRI revealed intracranial recurrence adjacent to the previous site, which responded completely to renewed corticosteroid and methotrexate therapy without further surgery. Due to its rarity, there is no consensus on the optimal management strategy. We review the literature of this unusual entity and illustrate its unpredictable course, underscoring the need for prolonged surveillance even after remission, as well as highlight the role of immunosuppressive therapy in preventing and treating recurrence of IMTs.

IS-306 Outcomes of modified sigmoid sinus resurfacing in SS dehiscence with broad-based diverticulum.

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Pulsatile tinnitus (PT) is often associated with sigmoid sinus dehiscence (SS-Deh) and adjacent sigmoid sinus diverticulum (Div). While sigmoid sinus resurfacing (SSR) is effective, some show incomplete improvement. This study evaluated outcomes of a modified SSR technique for SS-Deh with Div. A retrospective review was conducted on 60 patients with SS-Deh and broad-based Div who underwent SSR by a single surgeon. 15 received conventional SSR using bone cement and fascia, while 45 underwent additional smoothing of Div. Pre- and postoperative VAS scores for tinnitus loudness, distress, and Tinnitus Handicap Inventory (THI) scores were compared. Both groups showed significant improvement ($P<0.001$). In the conventional group, VAS loudness, distress, and THI scores improved from 7.2 to 1.7, 7.3 to 1.5, and 64.7 to 23.2. Modified group showed greater reductions: VAS loudness from 7.7 to 0.7, distress from 7.9 to 0.6, and THI from 61.9 to 9.1. Although differences were not statistically significant, the modified approach showed fewer partial remissions. Combined resurfacing and smoothing of Div may provide more consistent relief by addressing both the source and transmission of PT.

IS-307 Endoscopic Stapedectomy for Otosclerosis : An Observational Study of Sixteen Patients

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Objective : To evaluate hearing outcomes and perioperative safety of endoscopic stapedectomy in patients with otosclerosis. Methods : This observational study included sixteen consecutive patients with otosclerosis who underwent primary transcanal endoscopic stapedectomy. Pre- and postoperative audiologic data, including air-bone gap (ABG) and pure-tone average were analyzed. Intraoperative findings and postoperative complications were recorded. Results : Endoscopic visualization provided clear exposure of the oval window and stapes footplate in all cases. Significant improvement in hearing thresholds was observed, with most patients achieving postoperative ABG closure within 10-15 dB. No major complications occurred. Transient vertigo and taste disturbance were reported in 6 cases (37.5%) but resolved spontaneously. Conclusion : Endoscopic stapedectomy is a safe and effective technique for managing otosclerosis, offering excellent visualization and favorable audiologic outcomes in this patient series.

IS-308 Analysis Complications of Dysgeusia Post-Transcanal Tympanoplasty using a Microscope or Endoscope in Benign Chronic Suppurative Otitis Media Patient at Dr. Cipto Mangunkusumo General Hospital : Retrospective Cohort Study

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Background : Microscopic Ear Surgery (MES) has the advantage of being stereoscopic, and the operator can use both hands to hold the instrument. However, microscopes have the characteristics of a straight and limited viewing angle. This limitation led to Endoscopic Ear Surgery (EES), which offers a comprehensive and panoramic viewing angle. An endoscope allows for more precise visualization of the chorda tympany nerve, potentially avoiding cord resection and manipulation. Objective : To determine the difference in the prevalence of post-tympanoplasty dysgeusia in the endoscope group compared with the microscope and to prove that there is no difference between graft completion, improvement in hearing function, and duration of surgery in the microscope group compared with the endoscope. Methods : This study is a retrospective cohort study involving chronic suppurative otitis media patients who have undergone transcanal tympanoplasty, inclusion and exclusion criteria divided into two groups : group 1 using a microscope and group 2 using an endoscope. Data collection is based on medical records. Data are subjective dysgeusia based on patient complaints taken at weeks 1, 2, 4, and 6. Results : Study, 62 research subjects were obtained, consisting of 35 patients in group 1 and 27 in group 2. The average age for each group was 31.26±9.43 years in group 1 and 33.81±9.17 years in group 2. The prevalence of dysgeusia of post-transcanal tympanoplasty in the endoscopy group was no different compared to the microscope group. A total of 21 patients experienced dysgeusia in the first week, $p=0.94$ (RR=1 ; 95% CI=0.64-1.61). There was a decrease at weeks 2, 4 and 6. There were no differences between graft success, improvement in hearing function, and duration in the microscope group compared to the endoscope group. Conclusion : Using an endoscope operating tool can be an alternative to a microscope, offering potential patient outcomes and quality of life benefits. Dysgeusia due to injury to the chorda tympanic nerve during surgery is not a life-threatening event and is not permanent, but it can affect the patient's quality of life. Key words : Dysgeusia, Transcanal Tympanoplasty, Microscope, Endoscope.

IS-309 Key Considerations in Transcanal Surgery for External Auditory Canal

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Since 2009, I have performed transcanal surgery for external auditory canal exostoses, surpassing a cumulative total of 800 ears. While I initially utilized drills for bone removal, I transitioned to a technique using a chisel and hammer in 2013.

The surgical difficulty varies significantly depending on the diverse shapes of the exostoses itself and the shape of the external auditory meatus. Given the high degree of anatomical variation in both, a flexible, case-by-case approach is required from the very first step of managing the incision site. In this presentation, I will demonstrate specific surgical procedures through video, explaining the underlying rationale for key steps : the precise positioning of the meatal incision, strategies for managing a narrow cartilaginous ear canal, the optimal starting point for bone removal, and the technical challenges encountered during this procedure.

IS-310 Chondroblastoma-like Chondroma of the Middle Ear : A Novel Clinical Entity

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Chondroblastoma-like chondroma (CLC) is a rare benign soft tissue chondroma variant that has never been reported in the middle ear (ME). We report a 73-year-old Pakistani female who presented with progressive left hearing loss. Otoscopy showed a soft tissue lesion at the left anterior attic with ME extension. Imaging showed a 2.8cm expansile lesion involving the left squamous temporal bone, extending into ME and middle cranial fossa, infratemporal fossa and left temporomandibular joint (TMJ) with extensive erosion of the tegmen and mandibular condyle. There was no distant metastasis. Initial biopsy suggested a chondroid neoplasm with atypia. The patient underwent definitive excision, radical mastoidectomy, TMJ condylectomy with flap reconstruction. Intraoperative findings showed a large erosive lesion epicentered at the TMJ and anterior ME, abutting the dura, with extensive facial nerve dehiscence. Final histology confirmed chondroblastoma-like chondroma. CLC can present a diagnostic challenge with extensive bony erosion, mimicking malignancy. Complete surgical resection is essential, with long-term surveillance due to recurrence risk.

IS-311 Anti-PD-L1 antibody enhances airway immunity to nontypeable Haemophilus influenzae in aged mice

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Background : Aging impairs immune function and increases susceptibility to respiratory infections. However, age-related changes in intranasal vaccine-induced immunity in the upper and lower airways remain unclear.

Objective : To determine whether anti-PD-L1 antibody enhances airway mucosal immune responses to intranasal vaccination in aged mice.

Methods : Twelve- and eighteen-month-old BALB/c mice received three intranasal immunizations with outer membrane protein of nontypeable Haemophilus influenzae plus cholera toxin. Anti-PD-L1 antibody was given 1 day before the first and 3 days after the final immunization. Nasal lavage, bronchoalveolar lavage, and serum were collected to measure OMP-specific antibodies, and bacterial challenge to the nose or lung was used to assess mucosal clearance.

Results : Aging reduced OMP-specific antibody responses in both nasal and pulmonary compartments. PD-L1 blockade enhanced IgA responses and improved bacterial clearance in 12-month-old mice, whereas little enhancement was observed in 18-month-old mice.

Conclusion : PD-L1 blockade can partially restore age-related impairment of airway mucosal immunity in an age-dependent manner.

IS-312 Intranasal administration of PCV20 can elicit systemic and mucosal immune response

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Background

Streptococcus pneumoniae is an important causative organism of otitis media. Currently, the 20-valent pneumococcal conjugate vaccine (PCV20) is administered as a routine immunization. In this study, we investigated the immune response induced by intranasal administration of PCV20.

Materials and Methods

Balb/c mice aged 6-10 weeks were divided into two groups : one group (IP group) received 100 μL of PCV20 diluted 25-fold via intraperitoneal injection, and the other group (IN group) received 5 μL of undiluted PCV20 intranasal administration with Cholera Toxin (CT) as an adjuvant. Each immunization was performed three times at two-week intervals. The antibody titter against Pneumococcal Polysaccharide Serotype 3 Antigen (PPS3) was measured by ELISA.

Results

The IN group showed an increase in PPS3-specific serum IgG antibody titers and PPS3-specific salivary IgA antibody titers. The IP group showed an increase in PPS3-specific serum IgG antibody titers, but no increase in PPS3-specific salivary IgA antibody titers.

Conclusion

Intranasal administration of PCV20 induced both systemic and mucosal immune responses in mice.

IS-313 Kaempferia galanga Extract : Promising Adjuvant Therapy for Bacterial Acute Rhinosinusitis

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Background : Acute bacterial rhinosinusitis triggers inflammatory cascades inadequately addressed by antibiotics. This study evaluated Kaempferia galanga extract's anti-inflammatory potential. Methods : Thirty male Wistar rats (200-250g) with Staphylococcus aureus-induced rhinosinusitis. Five groups (n = 6) : normal control, disease control, K. galanga (300 mg/kg), amoxicillin (27 mg/kg), and combination therapy for 21 days. Outcomes : NF-κB, TNF-α, malondialdehyde, and IL-6 by ELISA. Analysis : ANOVA with Tukey's test ($p < 0.05$). Results : K. galanga significantly reduced markers ($p < 0.001$). NF-κB decreased from 215.12 ± 8.02 to 88.52 ± 2.64 ng/ml (59% reduction). TNF-α reduced from 22.09 ± 0.55 to 7.92 ± 0.45 pg/ml (64%). Combination achieved TNF-α normalization ($p < 0.001$). MDA decreased from 11.36 ± 0.37 to 3.71 ± 0.14 nmol/ml (67%). IL-6 reduced from 65.33 ± 0.54 to 39.64 ± 0.46 pg/ml (39%). Conclusion : Kaempferia galanga demonstrates multi-target efficacy through NF-κB inhibition and antioxidant mechanisms, supporting its adjuvant therapeutic potential.

IS-314 Distinct Fungal Shifts in Fungal Ball : Insights from Paired ITS Profiling

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Fungal ball is a unilateral form of chronic rhinosinusitis with a confined microenvironment. Whether fungal communities differ between lesional and contralateral sinuses remains unclear. This study compared paired fungal microbiota and functional signatures using ITS sequencing. Patients with pathologically confirmed fungal ball undergoing endoscopic sinus surgery were prospectively enrolled. Paired middle-meatus samples were analyzed for diversity indices, taxonomic profiles, and PICRUSt2-inferred pathways. Beta diversity differed significantly between lesional and contralateral sites ($p = 0.041$), while alpha diversity showed no difference. Although *Aspergillus* is the principal fungal ball component, its abundance did not differ between sides. Functional analysis revealed enrichment of the monoterpenoid biosynthesis pathway in lesional samples ($p = 0.037$). Paired ITS profiling demonstrated localized shifts in fungal composition and predicted functions. These changes may reflect microenvironmental alterations secondary to *Aspergillus*-related obstruction rather than overgrowth. Further studies are needed to clarify these mechanisms.

IS-315 Rare Acute Severe Bacterial of the Sinuses Following Drowning in Polluted Water

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Acute bacterial rhinosinusitis (ABRS) is an inflammation inside paranasal sinus mucosa that occurred less than twelve weeks. Three majority of organisms causing bacterial sinusitis are *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis*. The case presented however is cause by entirely different bacteria. *Escherichia coli* infection in sinonasal is rare but serious disease. Polluted water often used *Escherichia coli* as indicator. With history of drowning to a polluted gutter a week prior to the appearance of symptoms, patient came with left orbital oedema, left side facial abscess accompanied by ABRS symptoms. Pus culture was done twice, in the first admission and during surgery. Both result showed *Escherichia coli* with extended spectrum beta lactamase (ESBL) positive along with extended antibiotics resistance. With limited choice of antibiotics and the urgency of pus drainage, we managed this patient with both surgical and non-surgical approach. The aim of the paper is to report a rare case and its management.

IS-316 Rise of Rhino-Orbital-Cerebral Mucormycosis During COVID-19 : A Retrospective Study

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Background : COVID-19 is linked to severe opportunistic infections, notably rhino-orbital-cerebral mucormycosis (ROCM), which has high morbidity and mortality. Objectives : To evaluate the clinical profile, management, outcomes, and prognostic factors of ROCM in post-COVID-19 patients. Methods : We retrospectively analyzed 68 ROCM patients treated at Saidu Group of Teaching Hospital, Swat, Pakistan, from January-August 2025. Demographics, comorbidities, clinical presentation, disease extent, surgical approaches, and outcomes were reviewed. Results : Most patients were male (61%), aged 35-73 years ; 91.17% had diabetes, 88.3% prior COVID-19. Common features included facial pain, orbital involvement, and vision loss. Multisite disease involving paranasal sinuses, orbit, and brain was frequent. All underwent surgical debridement, mainly via modified endoscopic Denker's approach (88.23%). Mortality was 32.3% ; 62% achieved disease-free status. Intracranial extension ($p<0.001$) and uncontrolled diabetes ($p=0.016$) predicted mortality. Conclusion : COVID-19-associated ROCM primarily affects diabetic patients ; early diagnosis, prompt surgery, and strict glycemic control improve survival.

IS-317 Smell Training in South Eastern Chinese Adults

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Methods : Single-centre case series conducted from 2017 to 2023, assessing the effectiveness of smell training in Hong Kong. 40 patients with different etiologies, duration and severity of smell loss were recruited. All patients had a pre-treatment Sniffin Sticks test performed. They then underwent a 12-week smell training regimen with 4 scents : rose, eucalyptus, lemon, clove. Post-treatment Sniffin Stick scores were recorded at 12, 26 and 52 week intervals Results : URTI related smell loss and smell loss of </= 2 years patients respond significantly better to smell training, which is in line with global literature Summary : Smell training is an effective, low-cost and low-risk treatment for smell loss, even the worst prognostic subgroup has a treatment response of 20%. Early intervention with smell training is important for treatment success, and post-URTI patients carry a better prognosis.

IS-318 Olfactory Dysfunction Is Associated With Nasal Microbiome Dysbiosis in Asthma

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Introduction : Distinct upper airway microbiome profiles have been demonstrated in asthma. Olfactory dysfunction may reflect more severe upper airway inflammation ; however, whether olfactory status is associated with specific nasal microbiome characteristics remains unknown. Methods : In this prospective cohort study, adults with physician-diagnosed asthma underwent comprehensive upper airway evaluation, including rhinoscopy, sinus radiography, laboratory testing, and olfactory assessment using the Taiwan Smell Identification Test (TIBSIT). Nasal microbiome samples were collected and analyzed using 16S rRNA gene sequencing. Participants were stratified according to olfactory function. Results : Among 99 participants (53 normosmia, 45 hyposmia), hyposmia showed a distinct nasal microbiome profile enriched for biofilm-forming and potentially pathogenic taxa, including Staphylococcus aureus and Pseudomonas aeruginosa, organisms implicated in epithelial barrier disruption and chronic airway inflammation. Conclusion : Olfactory impairment in asthma is associated with upper airway microbial dysbiosis, supporting its role as a clinical marker of heightened unified-airway disease activity.

IS-319 Modern Adaptation of the Santo Tomas Smell Identification Test

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Objective : To develop a modern adaptation and modification of the Santo Tomas Smell Identification Test appropriate to the present population of Filipinos. Study Design : Cross-sectional, cross-cultural validation study. Results : Comparative analyses of the different odors according to age group showed that majority of the odor familiarity scores were significantly different across the ages except for six odorants. The most familiar and most correctly identified odorants were orange, melon, pineapple, chocolate, liquor, vinegar, soy sauce, patis, onion, pepper, bagoong, strawberry, hot sauce, peanut butter and garlic. The overall scale reliability of the 15-item modified ST-SIT, based on familiarity, was 0. 703. Conclusion : Familiarity to odorants is affected by culture and age as this depends on their exposure to them, hence smell tests must be adapted based on the population that is being tested. The modified and adapted 15-item ST-SIT scale maintained to be a valid and reliable measurement tool for smell disorders.

IS-320 VSRAD-Based Quantification of Gray Matter Atrophy and Its Association With Olfactory Function

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Both central and sensorineural olfactory dysfunction can induce atrophy of the central olfactory pathways following reduced sensory input due to olfactory epithelial damage. Although olfactory bulb volume can be assessed by MRI, methodological limitations hinder widespread use. We investigated the association between gray matter atrophy indices derived from non-SaMD VSRAD advance 2 and olfactory function in patients with olfactory dysfunction. Patients who underwent T&T olfactometry, Open Essence (OE), and MRI at our department were included. MRI data were analyzed using VSRAD advance 2 to extract severity of VOI atrophy, extent of whole-brain and VOI atrophy, VOI-to-whole-brain atrophy ratio, and gray- and white-matter VOI-to-VOI atrophy ratios. Associations between these indices and olfactory detection and recognition thresholds and OE scores were evaluated using correlation analyses and age-adjusted multiple regression. Detection and recognition thresholds and OE scores were significantly associated with several VSRAD indices. These findings suggest that gray matter atrophy indices are useful for detecting central olfactory pathway atrophy in patients with olfactory dysfunction.

IS-321 Treatment experience for hyperosmia associated with schizophrenia

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Hyperosmia is described in the Japanese clinical guidelines as a condition in which unpleasant symptoms caused by odors are prominent, and it is classified as a qualitative olfactory dysfunction. However, the cause of hyperosmia is often unclear, making treatment challenging. Further, case reports of effective treatment are extremely limited in Japan. We report a case in which a patient with hyperosmia underlying schizophrenia experienced an improvement in symptoms after adjusting the medication for schizophrenia. The patient is a woman in her 40s. She had been medication for schizophrenia at another hospital. She had long found odors at workplace unpleasant, but her symptoms were worsening. The patient consulted a local internal medicine clinic and was referred to our department. We diagnosed hyperosmia and suspected that the comorbidity of schizophrenia might be affecting hyperosmia. After increasing the risperidone dosage, her symptoms began to improve. Through this case, we will review the underlying causes and pathophysiology of hyperosmia based on the literature and present our considerations.

IS-322 Withdrawn

IS-323 Metacognition-Based Olfactory Training in Congenital Olfactory Disorder Kallmann Syndrome

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Background : Smell is an important sensory system. Olfactory disorders affect 3%-22% of the general population. Kallmann syndrome is one example of an inherited olfactory disorder. Currently, there is no specific treatment for congenital olfactory disorders. This study aims to assess the diagnosis and response to metacognitive-based smell training in congenital smell disorder patients with Kallmann syndrome. Objective : To determine the response to smell training in the congenital smell disorder group with Kallmann syndrome. Methods : Analytical descriptive study design with quasi-experimental to see the results of the smell examination and assess the response to metacognition-based olfactory training in patients with Kallmann Syndrome. Results : Olfactory response was evaluated using alcohol swab test, intravenous sniff test, and sniffin stick test after six weeks of training. A significant improvement in olfaction was observed with the alcohol swab (pre-training 4. 60±3. 88 ; post-training 10. 62 ± 7. 16 ; p = 0. 008) and sniffin stick test (pre-training 12. 17±4. 43 ; post-training 14. 52 ± 3. 11 ; p = 0. 025). However, no statistically significant changes were found in the results of the intravenous sniff test. Conclusion : Metacognition-based olfactory training resulted in improved olfactory function in patients with congenital olfactory impairment, as indicated by alcohol swab test and sniffin stick test scores. Trigeminal stimulation may contribute to these observed improvements

Keywords : congenital olfactory disorder ; kallmann syndrome ; olfactory test ; olfactory training

IS-324 The Role of Olfactory Dysfunction Protocol and Zinc Supplementation in Chronic Kidney Disease undergoing Hemodialysis

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Introduction :

Chronic kidney disease is a progressive disease that become an health problem because prevalences is rising. Accumulation of uremic toxins and loss of zinc during dialysis causes 70% anorexia, which is associated with smell-taste dysfunction and contributes to malnutrition.

Material and Methods :

Prospective of chronic dialysis in Cipto Mangunkusumo hospital from February-May 2024. They were screened using Alcohol Sniff Test (AST) and Malnutrition Screening Test (MST). Subjects with olfactory dysfunction and at risk of malnutrition continued to the Intravenous Olfactory Test (IOT), Sniffin Stick Test (SST), and Body Mass Index (BMI). They got the therapy for six weeks, then reassessed.

Results :

There were 17 out of 20 had olfactory dysfunction. We included 13 subjects aged 49 (22-58) years. There were statistically significant improvements ($p < 0.05$) in AST, Threshold, Discrimination, MST before and after therapy.

Conclusion :

The olfactory dysfunction in chronic dialysis was sensorineural. Screening and intervention for olfactory dysfunction and the risk of malnutrition are needed to improve the quality of life of chronic dialysis.

IS-325 "The Role and Treatment of Epiglottis in OSA"

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Upper airway obstruction occurring at the level of epiglottis has been observed in some patients suffering from obstructive sleep apnea, central alveolar hypoventilation or central neurologic injury. Epiglottis is also implicated as an obstruction site in obstructive sleep apnea. Anatomical factors may have a more substantial role in the development of epiglottic collapse than neurophysiological factors. The association between tongue base collapse and the incidence of epiglottis collapse was found to be significant. A collapsing tongue base can apply pressure to the epiglottis, potentially altering its position. It may be attributed to the anatomical relationship between the tongue base and epiglottis. Conversely, repositioning of the tongue may ameliorate epiglottis collapse. The phenomenon of epiglottis collapse as an obstruction site in obstructive sleep apnea (OSA) has drawn interest since the implementation of drug-induced sleep endoscopy (DISE). The surgical management of epiglottic collapse can improve OSA severity or even cure OSA but can also improve CPAP compliance. The selection of the appropriate surgical technique should be part of an individualized, patient-specific therapeutic approach.

IS-326 Sex Differences in Obstructive Sleep Apnea

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Obstructive sleep apnea (OSA) is characterized by upper airway obstruction during sleep. Although OSA is generally considered more prevalent in men, population-based studies suggest no significant sex difference in prevalence, raising concern about underdiagnosis and delayed treatment in women. To clarify the clinical characteristics of female OSA through comparison with male patients and to evaluate age-related differences. We retrospectively analyzed 747 patients (527 men, 220 women) who underwent polysomnography (PSG). Objective PSG parameters and subjective questionnaires -the Japanese Epworth Sleepiness Scale (JESS), Athens Insomnia Scale (AIS), and Pittsburgh Sleep Quality Index (PSQI)- were compared. Patients were stratified by age (50 or younger vs 51 or older). Men showed worse objective PSG parameters, whereas women reported worse subjective symptoms. Women aged 50 or younger had higher BMI and significantly greater daytime sleepiness, while no sex differences were observed in patients aged 51 or older. The clinical features of female OSA differ by age, suggesting a possible influence of menopausal status.

IS-327 Gender Differences in CPAP Uptake and Adherence in an Asian Cohort with Obstructive Sleep Apnoea

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Women with obstructive sleep apnoea (OSA) often present with subtler symptoms and remain under-studied in Asian populations. We examined treatment preferences in Asian women with OSA and if disease severity, symptom burden, or perceived sleepiness influence CPAP adherence. A retrospective cohort study of 130 women in a tertiary sleep centre assessed age, BMI, symptoms, apnea-hypopnea index (AHI), treatment choice, alternative therapies, CPAP adherence, and Epworth Sleepiness Scale (ESS) scores. Associations were analysed with chi-square tests and ANOVA. Disease severity was the strongest determinant of treatment choice, with CPAP uptake rising from 22% in mild to 48% in severe OSA ($p<0.001$). Severity did not predict adherence, and neither symptom burden nor ESS associated with treatment choice or adherence. Compared with men, women had lower CPAP acceptance yet higher adherence once therapy began. In Asian women, severity, not symptoms or sleepiness, drives treatment decisions, while baseline characteristics do not predict adherence. Higher adherence despite lower uptake highlights the need to explore psychosocial and device-related influences.

IS-328 Incidence of OSA co-morbidities in Asian female OSA patients

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Western studies have demonstrated a bi-directional relationship between OSA and multiple cardiovascular, metabolic and neuropsychiatric comorbidities. However, prevalence of OSA and its comorbidities can differ across racial groups, some of which remain under-represented in literature. This paper studies the incidence of comorbidities among Asian women with OSA. A retrospective cohort study at a Singaporean tertiary sleep centre identified Asian patients diagnosed with OSA. Comparisons were made between comorbidities of males and females and statistical significance assessed using chi-square test. A total of 542 Asian OSA patients were identified (n = 130 female, 24.0% ; mean age 45.5 ± 12.53 years [range 19-77 ; median 45]. Females had higher incidence of insomnia (25% ; males 17% ; p-value 0.0467 ; RR 1.45), heart failure (4% ; males 0% ; p-value 0.00309 ; RR 7.92) and asthma (12% ; males 4% ; p-value 0.00288 ; RR 2.64), but lower incidence of ischemic heart disease (2% ; males 8% ; p-value 0.0191 ; RR 0.280). Incidence of other comorbidities were similar between both genders. Our study highlights the relative differences in health burden between male and female Asian OSA patients.

IS-329 The nasalance score of Obstructive Sleep Apnea patients after palatal surgery and related factors

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Background : Palatal surgery for Obstructive Sleep Apnea (OSA) is performed to increase the space and volume of the oropharyngeal cavity. Partial resection of the velum and oropharyngeal structure can reduce upper airway collapse and air turbulence, thereby reducing snoring and sleep apnea episodes. However, this procedure can result in resonance disturbances, particularly hypernasality. Nasalance represents an objective measure of perceived nasality. Objective : To determine the voice resonance in OSA patients after palatal surgery. Methods : a cross-sectional descriptive-analytical study design to assess the average nasalance score and analyze related factors in OSA patients after palatal surgery at Cipto Mangunkusumo Hospital. Results : The nasalance scores on "uji gajah 1" had a median of 14 (7-67), on the "uji hantu 1" 41 (24-67), and on the "uji sengau" 64.5 (38-80). These medians were higher than normal patients and was significant on the "uji hantu 1". Obesity has lower risk of hypernasality on the 'uji gajah 1' in this study. Conclusion : Postoperative palatal OSA patients have higher nasalance scores on the 'uji hantu 1' test. Body mass index should be considered when performing palatal surgery in obese OSA patients.

Keywords : OSA, palatal surgery, nasalance score, resonance

IS-330 Nasopharyngeal Microbiome and Nasal Barrier Changes in Young Adults COMISA : A Pilot Study in Indonesia

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Background : Comorbid insomnia and obstructive sleep apnea (COMISA) is a complex sleep disorder associated with a substantially higher morbidity burden than either condition alone. The biological mechanisms underlying COMISA remain incompletely understood, particularly the roles of nasopharyngeal microbiome dysbiosis and nasal epithelial barrier dysfunction in young adults. Given its role in regulating inflammation and immune responses, further investigation into these mechanisms is warranted.

Objective : To characterize nasopharyngeal microbiome dysbiosis and nasal epithelial barrier dysfunction and to evaluate their associations with clinical symptoms, sleep parameters, and upper airway collapse patterns in young adults with COMISA in Indonesia. Methods : An analytical observational pilot study was conducted at the Rhinology Clinic of CMGH. Evaluations included nasopharyngeal microbiome profiling, measurement of nasal epithelial biomarkers, clinical assessment, polysomnography, and DISE. Results : Alpha and beta diversity indices did not differ significantly, however, the dysbiosis index was significantly elevated in COMISA. Functional analysis demonstrated upregulation of inflammation related pathways and reduced GABA pathways. Lactoferrin and beta defensin levels were increased in COMISA, particularly in UARS, with a decline in mild OSA.

Conclusion : COMISA in young adults is characterized by nasopharyngeal microbiome dysbiosis and activation of nasal epithelial defense mechanisms as a compensatory in response of oxidative stress. Keywords : microbiome dysbiosis, nasal epithelium, lactoferrin, beta defensin, COMISA

IS-331 The Impact of Transnasal Endoscope Placement During Natural Sleep Endoscopy

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Objective : Drug-induced sleep endoscopy (DISE) is widely used for preoperative evaluation in sleep surgery but may not fully reflect upper airway behavior during natural sleep. Natural sleep endoscopy (NSE) allows assessment under physiological conditions ; however, the effect of transnasal endoscope placement itself on PSG remains unclear. Methods : Six patients with OSA who underwent both NSE and PSG without therapeutic intervention between 2019 and 2025 were included. PSG data obtained without an endoscope were compared with data obtained with transnasal endoscope placement within the same individuals using paired statistical analyses. Results : No significant differences were observed in the AHI, minimum oxygen saturation, or the 3% ODI. In contrast, the mean duration of respiratory events was significantly longer with endoscope placement. Wake after sleep onset showed no significant difference but tended to increase. Conclusion : Transnasal endoscope placement during NSE does not affect apnea frequency or oxygen desaturation, supporting the validity of NSE for assessing OSA severity under natural sleep conditions.

IS-332 Withdrawn

IS-333 Hypoglossal nerve stimulation with palatal surgery for Obstructive Sleep Apnea-Singapore Experience

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Hypoglossal nerve stimulation implant is an established treatment for obstructive apnea, however it is not suitable as the first line treatment for some patients. Palatopharyngeal reconstructive surgery for obstructive sleep apnea is the main go to operation of many ENT surgeons. It is associated with poor results in some patients. In this case series, we described our experience of hypoglossal nerve stimulation implant in patients who failed palatal and soft tissue surgery in a tertiary academic medical centre in Singapore. These patients were deemed not suitable for hypoglossal nerve stimulation as the first line because of concentric circumference obstruction at the volume. In our knowledge, there has been no such reports of patients who undergo hypoglossal nerve stimulation after soft tissue failed to control obstructive sleep apnea in the literature in Asian patients.

IS-334 Withdrawn

IS-335 POSITION THERAPY FOR POSITIONAL OBSTRUCTIVE SLEEP APNOEA : A PROSPECTIVE COHORT STUDY

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Aim : Positional Obstructive Sleep Apnoea (POSA) and Non-POSA had been described in literature since 1984. A new generation position therapy (PT) device is designed to attach to the back of patient's neck to correct patient from worst sleeping position through vibration to potentially improve overall Apnoea-Hyponoea Index (AHI). This single-centre prospective cohort study is first in Hong Kong and aims at identifying whether this device is effective in treating POSA, whilst evaluating patients' compliance to treatment and any impact on their quality of life (QOL) or symptoms of OSA.

Methods : 13 POSA patients were put on PT device for a total of 9 months. Polysomnography (PSG) is recorded before treatment, and at 3, 6 and 12 months of treatment. Daytime somnolence and sleep quality are assessed with Epworth Sleepiness Scale and Pittsburgh Sleep Quality Index questionnaire respectively, whilst compliance to treatment is assessed with data collected from the device. Severity of symptoms may be reflected in STOP-Bang and Berlin Questionnaires.

Results : 10 patients completed the whole treatment. 6 demonstrated a reduction in overall AHI over time, which may be a result of increase in non-supine total sleep time and number of supine attempts per night, when their total sleep time and sleep efficiency remained similar. Overall, those who tolerated the PT device showed good compliance. There were no significant changes seen in QOL and symptoms of OSA.

Conclusion : PT device is a useful device in treating POSA patients. It is well tolerated, with good compliance and does not negatively impact patients' QOL.

IS-336 Severity-Dependent Relationship Between Sleep-Disordered Breathing and Laryngopharyngeal Reflux

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Background : Obstructive sleep apnea (OSA) and laryngopharyngeal reflux (LPR) frequently coexist, but their relationship remains controversial. Clarifying whether disease severity contributes to this association is clinically relevant. Methods : A PRISMA 2020-compliant systematic review of PubMed/MEDLINE (2014-2026) identified adult studies evaluating polysomnography-confirmed OSA and LPR assessed by validated symptom scores or objective reflux measures. Quantitative synthesis was selectively applied due to heterogeneity. Results : Ten studies including 480 participants were eligible. LPR prevalence among OSA patients ranged widely (15-92%), precluding prevalence pooling. Continuous outcomes consistently showed greater reflux symptom burden in OSA patients compared with non-OSA controls. Improvement in laryngeal findings following continuous positive airway pressure therapy was also observed. Conclusions : Available evidence supports coexistence of OSA and LPR with signals of a severity-dependent relationship. Despite heterogeneity, symptom burden and treatment response findings highlight the importance of bidirectional screening.

IS-337 A Case of Silent Sinus Syndrome in a 26 year old Male

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This is a case of a 26-year-old Filipino male who presented with an eight month history of sudden enophthalmos and hypoglobus on his left eye. Imaging revealed an asymmetric contraction and bony remodeling of the left maxillary sinus with concave deformity changes of the left orbital floor, as well as retraction of the left eye globe into the orbital fossa. He was diagnosed as Chronic Maxillary Atelectasis Stage III or Silent Sinus Syndrome. He was surgically managed through an endoscopic middle meatal antrostomy, with left concha bullosectomy. Intraoperatively, a contracted maxillary antrum with a polypoid roof and thick mucoid discharge was visualized. The patient tolerated the procedure well and postoperatively had no complications, with an improvement in his enophthalmos and hypoglobus symptoms.

IS-338 Rhinolith-Induced Septal and Intracranial Abscess with review on Rhinolithiasis complications

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Rhinoliths are uncommon intranasal calcifications that typically present with unilateral nasal symptom. Progression to intracranial infection is exceedingly rare. We describe a paediatric case where an unrecognized rhinolith contributed to persistent intracranial empyema, underscoring the importance of nasoendoscopic evaluation. A 5-year-old boy presented with fever and cough. During admission, he developed seizures with recurrent high-grade fever. CT revealed a subdural empyema. Urgent neurosurgical drainage was performed. Despite initial improvement, repeat CT showed residual intracranial empyema, with nasal septal abscess and rhinosinusitis. Evaluation under anaesthesia revealed a rhinolith at the nasal floor, with mucopus from the maxillary ostium. Endoscopic removal of the rhinolith and drainage of the septal abscess were done. The child recovered well along with antibiotics. Rhinolith-associated nasal septal abscess should be considered in patients with unexplained intracranial empyema. Nasal evaluation and timely intervention can prevent morbidity. Rhinolithaisis rarely causes significant complications and none so far leads to septal abscess and intracranial complications.

IS-339 Rosai-Dorfman Disease with Isolated Sinonasal Involvement : A Diagnostic Challenge

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Rosai-Dorfman disease (RDD), or sinus histiocytosis with massive lymphadenopathy, is a rare, benign disorder classically marked by painless cervical lymph node enlargement. Extranodal involvement is uncommon, and isolated sinonasal disease is particularly rare, often leading to diagnostic confusion. We present an unusual case of Rosai-Dorfman disease manifesting solely as an extensive nasal mass with involvement of all paranasal sinuses and orbital extension, in the complete absence of lymphadenopathy. The atypical presentation posed a significant diagnostic challenge, compounded by a prior misdiagnosis of rhinoscleroma, for which the patient had already undergone two surgical interventions. Definitive diagnosis was ultimately established through histopathological examination, revealing characteristic histiocytic features consistent with RDD. This case highlights the importance of considering Rosai-Dorfman disease in the differential diagnosis of aggressive-appearing sinonasal masses, even in the absence of lymph node involvement. Early recognition and accurate diagnosis are essential to avoid unnecessary treatments and repeated surgical procedures.

IS-340 Frontal Mucopyocele with Orbital Subperiosteal Abscess : A Combined Surgical Management

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Objectives : Mucoceles are expansile, epithelial-lined lesions resulting from chronic ostial obstruction and pressure-induced bone remodeling. We report a rare case of frontal mucopyocele that progressed to a superior orbital wall subperiosteal abscess, highlighting clinical presentation, imaging features and management. Methods : A single-patient case report structured according to CARE guidelines. Results : CT demonstrated a large, expansile frontal sinus lesion with orbital roof dehiscence and secondary formation of a superior orbital subperiosteal abscess. Urgent surgical treatment using a combined endoscopic sinus surgery with marsupialization and an external sub-brow incision achieved effective abscess drainage. While postoperative imaging confirmed successful sinus re-aeration and abscess resolution, visual recovery was limited, consistent with persistent optic neuritis. Conclusions : Frontal mucopyoceles may exhibit aggressive behavior with rapid orbital extension. In the presence of laterally positioned superior orbital subperiosteal abscess, a combined endoscopic and external approach may be required to achieve complete drainage.

IS-341 A pediatric case diagnosed as PI3K-delta syndrome with repeated airway inflammation

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Activated PI3K-delta syndrome (APDS) is caused by a variant in *PIK3CD*, characterized by recurrent respiratory infections, bronchiectasis, and lymphadenopathy. The patient is an adolescent male. At 1 year of age, he was hospitalized for pneumonia. Thereafter, he experienced repeated lower respiratory tract infections accompanied by wheezing, requiring multiple hospitalizations annually until around age 9. He underwent bilateral tonsillectomy and adenoidectomy at 3 and suffered from recurrent otitis media with effusion. Other associated conditions included Hashimoto's disease, enuresis, and microscopic hematuria. Examination of the nasal cilia showed no abnormality. However, genetic sequencing revealed a heterozygous missense variant in *PIK3CD*. Although APDS has an autosomal dominant inheritance pattern, it is known to present with diverse clinical symptoms and laboratory findings even within the same family and carries a risk of developing lymphoma. Therefore, accurate diagnosis and management are required.

IS-342 HHT presenting with long-standing epistaxis in a 65-year-old woman : a case report

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Background : Hereditary haemorrhagic telangiectasia (HHT) is an autosomal dominant vascular disorder characterised by recurrent epistaxis, mucocutaneous telangiectasia, and visceral arteriovenous malformations (AVMs). Case Presentation : A 65-year-old Chinese woman with hypertension and active smoking had long-standing spontaneous epistaxis. Previous laser photocoagulation gave only temporary relief. Examination showed multiple telangiectasias on the tongue, palate, oral mucosa, and palms, fulfilling three Curaçao criteria and confirming definite HHT. Screening with contrast echocardiography, MRI brain, and abdominal imaging revealed no pulmonary, cerebral, or hepatic AVMs. There was no family history. Management : She was managed with nasal humidification, topical emollients, and smoking cessation. Further laser therapy was deferred. Conclusion : This case highlights the importance of recognising telangiectasia in older adults with chronic epistaxis to enable timely AVM screening. Keywords : HHT, epistaxis, Curaçao criteria, telangiectasia, AVM.

IS-343 Clinical Significance of Circulating miRNA-21 and miRNA-223 in Laryngeal Squamous Cell Carcinoma

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Background : Early diagnosis of laryngeal squamous cell carcinoma (LSCC) remains challenging. Circulating microRNAs (miRNAs or miR), particularly miR-21 and miR-223, have emerged as non-invasive biomarkers with diagnostic and prognostic potential. Methods : PubMed, Scopus, and ScienceDirect were searched for studies evaluating circulating miR-21 and/or miR-223 in serum or plasma of LSCC patients. Evidence on diagnostic accuracy, prognostic relevance, and post-treatment expression changes was qualitatively synthesized. Results : Five studies met inclusion criteria. Circulating miR-21 was consistently upregulated in LSCC and associated with advanced stage, nodal involvement, and reduced survival, with diagnostic accuracy up to AUC 0. 857. miR-223 showed dynamic expression changes, decreasing after surgery and increasing at recurrence, supporting its role in disease monitoring. Combined assessment of miR-21 and miR-223 improved diagnostic and prognostic performance, although heterogeneity precluded pooling. Conclusions : Circulating miR-21 and miR-223 represent clinically relevant, biomarker-based tools for LSCC diagnosis, prognosis, and post-treatment surveillance.

IS-344 Hematological indices and COX-2 expression as prognostic biomarkers in oral cancer

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Introduction-The present study aimed to estimate role of hematological indices (Neutrophil Lymphocyte ratio, Platelet Lymphocyte Ratio and Lymphocyte Monocyte Ratio) and COX-2 expression in predicting prognosis of patients with oral cavity cancer. Methods- 223 patients of oral cavity squamous cell cancer treated with surgery with or without adjuvant therapy were included. Hematological indices were calculated. COX-2 expression and grading was done using Allred score. Receiver operating characteristic curve was used to assess cut off point, sensitivity, specificity of markers for predicting recurrence. Results- Mean follow up duration was 25. 9 months. Cut off value of NLR, PLR, LMR was 3. 4683, 146. 875 and 7. 3103. High Neutrophil lymphocyte ratio was associated with higher T stage and peri neural invasion. High grade of COX-2 expression (Allred score more than 3 had significantly high risk of recurrence. Conclusion- Local inflammatory markers has higher sensitivity and positive predictive value for predicting recurrence.

IS-345 Silver Nanogel Modulation of DNA Repair, Apoptosis, and Wnt/β-Catenin in OSCC

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Oral squamous cell carcinoma (OSCC) remains a major global health burden driven by genotoxic exposure and molecular dysregulation. This study evaluated the molecular effects of a silver nanogel using in vitro oral cancer cell models and an in vivo site-specific oral carcinogenesis model induced by 4-nitroquinoline-1-oxide (4NQO). Molecular analyses focused on DNA repair, apoptosis, and Wnt/β-catenin signaling, supported by histopathological evaluation and systemic toxicity assessment. Silver nanogel treatment resulted in significant modulation of DNA repair mechanisms, activation of intrinsic apoptotic pathways, and suppression of aberrant Wnt/β-catenin signaling. These effects correlated with reduced lesion severity, improved epithelial architecture, and absence of systemic toxicity. Overall, silver nanogel-mediated pathway modulation demonstrates promising preclinical efficacy in 4NQO-induced oral carcinogenesis and supports its translational potential for OSCC.

IS-346 EBV-LMP1 transportation into extracellular vesicles regulates pathogenesis of nasopharyngeal cancer

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Background :

In nasopharyngeal cancer (NPC), Epstein-Barr virus (EBV) oncoprotein LMP1 is transported into extracellular vesicles (EVs), promoting invasion and metastasis. This transport is mediated by the C-terminal function of UCH-L1, tumor-expressed deubiquitinating enzyme.

Objective :

To evaluate UCH-L1-mediated LMP1 transport into EVs under lytic infection, and to assess its therapeutic potential.

Methods :

1. Prognostic analysis of LMP1/UCH-L1 expression was performed using NPC tissue specimens as well as RNA-seq.

2. LMP1 transport into EVs was evaluated using innovative NanoSuit-CLEM method, enabling observation of biological ultrastructure. Changes in LMP1 transport were investigated using UCH-L1 inhibitor.

Results :

1. High UCH-L1 expression in NPC tissues resulted in significantly shorter progression-free survival.

2. LMP1 transport into EVs was observed, with its secretion increasing upon lytic infection induction. UCH-L1 inhibitor suppressed this transport, concurrently reducing cell proliferation and migration.

Conclusion :

Lytic infection increases UCH-L1-mediated LMP1 transport into EVs, promoting NPC malignancy. UCH-L1 is a candidate for a novel therapeutic target.

IS-347 Mitochondrial Redox Instability in Early Oral Premalignant Progression : A Hypothesis

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Oral potentially malignant disorders (OPMDs) represent an early, unstable phase of oral carcinogenesis in which molecular alterations precede dysplasia and malignant transformation. Persistent oxidative stress is a hallmark of OPMDs, yet the mitochondrial basis of sustained reactive oxygen species (ROS) generation in clinically stable lesions remains unclear. We propose that functional instability of mitochondrial electron transport under chronic carcinogenic stress leads to early redox dysregulation. Electron transfer within respiratory complexes occurs over nanometer-scale distances where quantum tunnelling influences transfer efficiency and electron escape. Tobacco exposure, areca nut use, inflammation, hypoxia, and metabolic stress may disrupt mitochondrial membrane potential and redox centre alignment, increasing off-pathway electron leakage from complexes I and III. Escaped electrons react with oxygen to generate persistent mitochondrial ROS, promoting mitochondrial DNA damage, nuclear genomic instability, field cancerization, and early premalignant progression.

IS-348 Single-Cell Profiling of Neural Regeneration Networks in Radiation-Injured Salivary Glands

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Radiotherapy is a major treatment for head and neck cancer, but radiation-induced salivary gland dysfunction impairs quality of life. Although salivary glands contain diverse populations, the signaling that drives tissue remodeling after irradiation remains unclear. We applied snRNA-seq to 34,737 nuclei from 2 normal and 2 irradiated glands, supported by bulk RNA-seq and multiplex-IHC validation. Clustering identified 25 cell populations ; stromal, adipocyte-like, immune, and neuron-like cells expanded, whereas acinar cells were depleted, with immune infiltration confirmed by IHC. Despite a global decrease in ligand-receptor communication, the neuron-like cluster strengthened outgoing signaling. Neurotrophic and ECM-integrin pathways were enriched within this cluster, suggesting neural contributions to ECM remodeling and epithelial regeneration. Bulk RNA-seq reflected global expression shifts but lacked neural Gene Ontology enrichment, indicating that neuron-associated signaling was detectable only at single-cell resolution. These findings identify neural pathways involved in radiation-induced salivary gland injury and suggest potential targets for functional restoration.

IS-349 CLIC2 can function as a malignant factor in head and neck squamous cell carcinoma

○Yuki Hosokawa, Kohei Takagi, Yuki Irifune, Eriko Sato, Sohei Mitani, Naohito Hato
The University of Ehime

In head and neck squamous cell carcinoma (HNSCC), patients refractory to first- or second-line chemotherapy have few effective treatment options, and even with comprehensive genomic profiling (CGP), therapeutic targets remain extremely rare. Therefore, new therapeutic targets for HNSCC are needed.

Recently, Chloride Intracellular Channel 2 (CLIC2) has been reported to be associated with cancer prognosis. In this study, we investigated the functional role of CLIC2 in HNSCC and evaluated its potential as a novel therapeutic target.

Overexpression of CLIC2 in the human tongue squamous cell carcinoma cell line (SAS) promoted tumor growth and proliferation and suppressed antitumor immunity. Furthermore, *MMP* expression was increased at the mRNA level, LOXL2 and NHE1 were upregulated at the protein level, and CGP identified multiple tumor-promoting differentially expressed genes (DEGs). Immunohistochemical staining of HNSCC specimens revealed that several cases exhibited high CLIC2 expression, which was frequently associated with poor prognosis.

These findings suggest that CLIC2 can function as a malignant factor in HNSCC and could represent a potential new therapeutic target.

IS-350 Examination of Airway Management for Pierre Robin Sequence

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National Center for Child Health and Development

Airway management in Pierre Robin Sequence (PRS) is challenging because of the wide variability in disease severity. We retrospectively evaluated airway management strategies in 26 PRS patients who first visited our Department of Otolaryngology between January 2014 and December 2025. Using a pediatric pharyngeal stenosis severity score previously proposed by our group, we reviewed clinical characteristics, airway interventions and outcomes, and categorized patients into three groups: no intervention, non-surgical intervention and surgical intervention. Severity scores were compared across these groups. Patients with a severity score of 4 or higher were significantly more likely to require airway intervention than those who required no intervention, suggesting that the severity score is a useful indicator for determining airway management strategies in PRS. In addition, some patients with higher severity scores avoided tracheostomy by undergoing tongue lip adhesion , indicating that tongue lip adhesion may serve as an effective alternative. Treatment strategies for PRS should be individualized, with a stepwise approach that includes tongue lip adhesion according to disease severity.

IS-351 Chronic Inflammatory Airway Disease Risk After Tonsillectomy : A Large Cohort Study

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Objectives: This study aimed to evaluate the long-term association between tonsillectomy and chronic inflammatory airway diseases in patients aged ≤20 years with chronic tonsil or adenoid disease. Methods: A retrospective cohort analysis was performed using the TriNetX Research Platform (2000/01/01-2023/12/31). Patients were assigned to surgical or non-surgical cohorts and matched 1 : 1 by propensity scores. Incident allergic rhinitis, chronic rhinosinusitis, chronic rhinosinusitis with nasal polyps (CRSwNP), and asthma were assessed using hazard ratios (HRs) with 95% confidence intervals. Results: Among 858, 676 eligible individuals, 274, 420 were included in each matched cohort, with a mean follow-up of 1, 722 days. The surgical group showed significantly lower risks of allergic rhinitis (HR 0. 805; 95% CI 0. 791-0. 820), chronic rhinosinusitis (HR 0. 780; 95% CI 0. 757-0. 803), CRSwNP (HR 0. 816; 95% CI 0. 719-0. 926), and asthma (HR 0. 879; 95% CI 0. 861-0. 897). Conclusion: Tonsillectomy was associated with sustained reductions in multiple chronic airway inflammatory diseases, suggesting potential long-term respiratory benefits in appropriately selected young patients.

IS-352 Vallecular Cyst in a 2-month old male Treated with Radiofrequency Ablation : A Case Report

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The study documents a 2-month-old male presenting with respiratory distress and inspiratory stridor. Laryngoscopy identified a 2cm x 2cm cystic mass on the vallecula that significantly obstructed the upper airway. The patient was treated using endoscopic-assisted radiofrequency ablation (RFA) with a Coblation wand under general anesthesia. This 15-minute procedure resulted in minimal bleeding and successfully excised the cyst. A one-week post-operative evaluation confirmed no recurrence and well-visualized glottic structures. Vallecular cysts are rare congenital anomalies that can lead to failure to thrive and life-threatening airway compromise. While various surgical options exist, such as excision or aspiration, marsupialization via RFA is highlighted as a precise, minimally invasive technique that effectively minimizes damage to surrounding tissues. The researchers aim to provide the medical community with additional information to improve the surgical management and understanding of these potentially fatal pediatric cases.

IS-353 Seven Months of Cough : The Case of a Misdiagnosed Bronchial Foreign Body

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Missed airway foreign bodies (FB) are commonly diagnosed as asthma, pneumonia, or other respiratory conditions, leading to significant complications if not promptly identified. Diagnostic challenges often present in unwitnessed FB inhalation. Early clinical suspicion and appropriate diagnosis are critical for optimal outcomes. Bronchoscopy remains the gold standard for both diagnosis and retrieval of airway FB. Delayed recognition may necessitate more invasive surgical intervention. We present the case of a 2-year-old boy admitted with a persistent cough and respiratory distress that had been managed as pneumonia for 7 months. A CXR revealed a roofing nail lodged within the right main bronchus. An MTD team approach was adopted, and rigid bronchoscopy was performed as the first-line management strategy. The FB was successfully removed without complications. This case underscores the importance of maintaining a high index of suspicion for FB aspiration in children with persistent respiratory symptoms, particularly when standard treatment fails to yield improvement. Early bronchoscopy can prevent unnecessary morbidity and avert the need for open surgical procedures.

IS-354 From Sinus to Fistula : Cost of Repeated Incision and Drainage in Branchial Anomalies

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Branchial cleft anomalies commonly present as branchial cleft sinuses, which are epithelialized tracts that communicate with the skin or pharynx. While these anomalies are often asymptomatic, they can become complicated by infection, resulting in abscess formation. The standard management of an infected branchial cleft sinus involves prompt incision and drainage (I&D) to alleviate symptoms and control infection. However, repeated I&D procedures without definitive surgical intervention to address the underlying anomaly may lead to significant complications, particularly in children. This case series describes two children with a history of recurrent lateral neck swellings that initially lacked any external openings. Both underwent multiple I&D procedures before presenting with fluid extrusion from newly formed cutaneous openings, which led to social distress, including peer ridicule. Definitive surgical excision was performed via an external approach, resulting in complete symptom resolution at the six-month follow-up.

IS-355 Hair-Induced Uvular Knot in a Neonate : A Rare Case Presentation

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Hair tourniquet syndrome is a known condition affecting digits and external appendages in infants ; however, intraoral presentations are exceedingly rare. We report a case of an 18-day-old female with a strand of hair knotted around the uvula, leading to significant edema. The patient was managed conservatively with intravenous steroids and fluids, resulting in spontaneous resolution without surgical intervention.

IS-356 Rethinking Routine : Preoperative Blood Testing in Pediatric Tonsillectomy : A Retrospective Review

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Introduction : Tonsillectomy, with or without adenoidectomy, is a commonly performed paediatric procedure, with postoperative haemorrhage occurring in approximately 2-4% of cases. Despite limited evidence supporting their predictive value in otherwise healthy children, routine preoperative blood investigations are still frequently performed. Current literature and guidelines favour targeted assessment based on structured bleeding history rather than indiscriminate laboratory testing, although practice variability persists. This study retrospectively evaluates the relevance and clinical utility of preoperative blood investigations in paediatric tonsillectomy cases at our centre to inform institutional preoperative protocols.

Aim : To evaluate the relevance and clinical utility of preoperative full blood count (FBC) and group, screen, and hold (GSH) testing in pediatric tonsillectomy and their association with postoperative hemorrhage.

Materials and Methods : This retrospective review included 164 pediatric patients who underwent tonsillectomy, with or without adenoidectomy, between June 2023 and April 2025. Data on preoperative FBC, GSH, demographics, and postoperative hemorrhage were collected and analyzed descriptively.

Results : Preoperative FBC was performed in 16 patients (9.8%) and GSH in 2 (1.2%). Four patients (2.4%) developed secondary hemorrhage, all of whom had not undergone preoperative blood testing. No primary hemorrhage was reported. Statistical analysis did not demonstrate significance (Fisher's exact $p = 0.58$ for FBC ; $p = 1.00$ for GSH).

Conclusion : Routine preoperative blood testing in healthy pediatric patients may not predict postoperative hemorrhage. Selective testing based on structured bleeding history remains the most appropriate approach to ensure safety and avoid unnecessary investigations.

Keywords : adenoidectomy, full blood count, group screen and hold, preoperative testing, postoperative hemorrhage, tonsillectomy

IS-357 Management of Recurrent Nasopharyngeal Carcinoma

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Nasopharyngeal carcinoma (NPC) is a distinct subtype of head and neck cancer, with the highest incidence in Southern China and Southeast Asia. The standard primary treatment is radiotherapy with or without chemotherapy. However, despite aggressive radical treatment, approximately 15-30% of patients develop recurrence of their previously treated tumour. Detection of local recurrence within a previously irradiated field is particularly challenging, and several adjunctive tools are now available to facilitate earlier diagnosis.

For recurrent or metastatic NPC, systemic therapy with chemotherapy plus immune checkpoint inhibitors (ICIs) as first-line treatment has improved progression-free survival and objective response rates compared with chemotherapy alone. Among patients with disease confined to local recurrence, however, data remain limited regarding objective response, long-term outcomes, and the role of radical surgery after initial chemo-immunotherapy. In particular, it is unclear whether radical resection remains a safe and effective salvage option following chemotherapy and ICI treatment.

This presentation will review current strategies for surveillance and management of locally recurrent NPC and will introduce our case series of patients who achieved complete pathological response after initial chemotherapy and pembrolizumab, followed by radical surgical resection.

IS-358 Risk grouping by plasma EBV DNA tests and overall stage in nasopharyngeal carcinoma

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We reviewed 931 nasopharyngeal carcinoma patients who finished curative treatment and investigated the impact of plasma EBV DNA and overall stage on prognosis. Kaplan-Meier analysis revealed that EBV DNA-negative patients (n = 86), compared with EBV DNA-positive patients (n = 845), had higher 5-year overall survival (94% vs 79%, P < 0.001) and relapse-free survival (88% vs 73%, P = 0.001). Univariate and multivariate analyses identified overall stage and plasma EBV DNA as two most important prognostic factors. Using recursive partitioning analysis, we classified our patients as having a low, intermediate, or high risk of death based on three factors: EBV DNA qualitative status (- vs +), overall stage (I-III vs IV), and EBV DNA quantitative level (low vs high, cutoff = 1,000 copies/ml). The 5-year OS were 94% in low-risk, 73% in intermediate-risk, and 63% in the high-risk group (P < 0.001). The RFS were 89%, 68%, and 52%, respectively (P < 0.001). To conclude, NPC patients with undetectable plasma EBV DNA had better survival outcomes. Combined plasma EBV DNA tests and overall stage can stratify patients into three distinct subgroups with different risk of death and relapse.

IS-359 Relationship between the proportion of LMP-1 and treatment response in pediatric NPC

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OBJECTIVES To investigate proportion of LMP-1 and its relationship with therapeutic response in pediatric nasopharyngeal carcinoma (NPC). aiming to identify LMP-1 as a potential prognostic factor for therapeutic outcome. MATERIALS AND METHODS A cross-sectional study was conducted on 30 pediatric NPC subjects at Cipto Mangunkusumo Hospital Jakarta between 2013 and 2023. Data on demographics, tumor pathology, tumor staging, treatment protocol, performance status, and response therapy and paraffin block were collected. PCR examinations were performed to investigate LMP-1 from paraffin blocks, then compared with the response to therapy. Analysis with internal comparation was performed for the two groups using the Chi-square and Fisher exact tests. RESULTS LMP-1 positive was 28 subjects and negative was 2 subjects. LMP-1 positive as many as 17 subjects showed a response (16 complete responses and 1 partial response), while 8 subjects showed no response (2 stable responses 6 progressive responses). There were 2 subjects with positive LMP 1 showed response to therapy (p = 1,000). CONCLUSION There was no association between LMP-1 expression and therapeutic response.

IS-360 Prevalence of HPV Infection in Nasopharyngeal Cancer Tissues of Patients Treated at Our Department

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Background: Nasopharyngeal carcinoma (NPC) is a malignant disease with an unclear etiology, associated with Epstein-Barr virus (EBV) and human papillomavirus (HPV) infections. Although Japan is not a high-incidence region, its histological types differ from those in Europe and North America, with WHO type II and III NPCs being predominant and mainly caused by EBV infection. However, studies suggest HPV may also influence NPC development in non-endemic regions. Our department previously studied HPV infection in NPC patients (1996-2015), this study further investigates its role in NPC development. Methods: This study analyzed paraffin-embedded tumor specimens from 26 NPC patients (2015-2022). Viral infection status was assessed using p16 immunohistochemistry (IHC), HPV polymerase chain reaction (PCR), and in situ hybridization for EBV-encoded RNA (EBER-ISH). Results: Among 26 patients, 19 (73%) were EBV-positive and HPV-negative, 2 (8%) were EBV-negative and HPV-positive, and 5 (19%) werenegative for both; no co-infections were observed. Conclusion: The findings suggest that HPV infection is rare and likely plays a minimal role in NPC carcinogenesis in non-endemic regions.

IS-361 A Wolf in the Sella : Pituitary Metastasis Mimicking Macroadenoma in Nasopharyngeal Carcinoma

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Although nasopharyngeal carcinoma (NPC) commonly invades the skull base, metastasis to the central nervous system remains an infrequent phenomenon. We report a rare case of invasive nasopharyngeal carcinoma with pituitary metastasis, initially had a diagnostic confusion as a concurrent pituitary macroadenoma. A 32-year-old woman presented with multiple left neck swellings, left eye strabismus, slurred speech, constitutional symptoms, headache, galactorrhoea, and multiple cranial nerve palsies. Nasoendoscopy revealed a slightly enlarged left torus and mild inflammation in the adenoid, with clear bilateral fossa of Rosenmüller. Biopsy from the adenoid area confirmed undifferentiated NPC. Imaging studies, including computed tomography and magnetic resonance imaging (MRI) of the brain and pituitary, revealed a left nasopharyngeal mass and an enhancing pituitary mass, involving the infundibulum and bilateral cavernous sinuses with no bone erosion. Biochemical tests showed panhypopituitarism. The patient was referred to the oncology department for treatment. Post-chemotherapy MRI demonstrated normalization of the pituitary gland and stalk, suggesting previous involvement from NPC.

IS-362 Withdrawn

IS-363 Advantages of Fluorescent Guided Surgery (FGS) and Robotic Surgery in Trans Oral Laser Surgery (TOLS) for Early Glottic CA

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Advances in technologies have significantly transformed the surgical management of upper aerodigestive tract cancers. Fluorescence-guided laryngeal malignancy surgery enhances intraoperative tumor localisation by using targeted fluorescent agents that preferentially accumulate in malignant tissues. This technique improves delineation of tumor margins, facilitates real-time identification of residual disease, and aids in preservation of critical laryngeal structures. By increasing margin accuracy, fluorescence guidance has the potential to reduce local recurrence rates by improving the oncological outcomes while preserving the organ functions.

Transoral robotic surgery (TORS) has emerged as a pivotal modality in the management of selected oropharyngeal, supraglottic, and glottic lesions. The robotic platform offers three-dimensional magnified vision, tremor filtration, and enhanced instrument dexterity, enabling precise en bloc resection through a transoral approach. TORS avoids external incisions, reduces the need for tracheostomy, shortens hospital stay, and allows faster recovery with favorable oncological and functional outcomes. In early to selected intermediate-stage tumors, TORS provides excellent local control with reduced morbidity compared to conventional open approaches.

The fluorescence-guided techniques and TORS represents a promising frontier, combining superior visualization with surgical precision. Together, these innovations support a paradigm shift toward organ preservation, personalized oncologic surgery, and improved quality of life for patients with laryngeal and upper airway cancers.

IS-364 Quality of life after transoral robotic surgery and transoral videolaryngoscopic surgery

○Kazufumi Obata, Kenji Okami, Takane Watanabe, Mayu Yamauchi, Hiroaki Iijima, Koji Ebisumoto, Akihiro Sakai, Koichiro Wasano
Tokai University

Background : Transoral robotic surgery (TORS) and transoral videolaryngoscopic surgery (TOVS) have been increasingly adopted for head and neck tumors, but the effectiveness and the differences of TORS and TOVS on postoperative quality of life (QOL) remains unknown. We evaluated and compared the postoperative QOL of patients who underwent TORS and TOVS.

Methods : This study included 112 cases of head and neck tumors treated with TOVS (92cases) and TORS (20 cases) between 2016 and 2024. QOL was assessed preoperatively and 1, 3, 6, 12, and 18 months postoperatively using QOL questionnaires (EORTC QLQ-C30 and QLQ-H&N35).

Results : The pain and mouth opening limitation were significantly worse at 1 month postoperatively than preoperatively for the TOVS and TORS groups. However, when comparing the both groups, no statistically significant difference was observed in postoperative QOL symptom scores, including pain and mouth opening limitation.

Conclusion : Postoperative QOL after TORS and TOVS may be associated with pain and mouth opening limitation. Furthermore, no significant difference in postoperative QOL was observed between TOVS and TORS.

IS-365 Early Experience with Robot-Assisted Supraomohyoid Neck Dissection for Oral Cancer : A Case Series

○Krittaya Jirasiritham, Thanusak Srijai
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Background : Robot-assisted neck dissectionaim to improving cosmetic outcomes while preserving oncologic principles. Evidence for its use in oral cavity cancer in Thailand remains limited. Methods : We conducted a retrospective case series of patients with oral cancer who underwent robot-assisted supraomohyoid neck dissection via retroauricular approach with the daVinci Xi at Rajavithi Hospital. Outcomes focused on feasibility, nodal yield, functional outcomes, and postoperative complications. Results : Nine consecutive patients were included. The median lymph node yield was 24 nodes, with adequate nodal harvest achieved 88.9%. Overall feasibility was achieved in 88.9%, defined as completion without conversion, adequate nodal harvest, and absence of major complications. Marginal mandibular nerve weakness occured 44.4% with no permanent deficits. One patient (11.1%) experienced transient spinal accessory nerve weakness. One minor postoperative complication (11.1%) was observed. Conclusion : This early experience demonstrates acceptable feasibility and nodal yield. Functional outcomes were characterized by transient, reversible nerve deficits, supporting safe initial implementation.

IS-366 Robotic Infraclavicular Neck Dissection (RIA-MIND) : Safety and Learning Curve Analysis

○SURAGA BELAKAWADI, SANDEEP NAYAK, ATHIRA RAMAKRISHNAN, AMEENUDDIN KHAN, ABHILASHA SADHOO, BHARATH GANGADHARA, SREEKANTH REDDY, MAYUR MANCHAIAH, DEVAPRASAD MUNISIDDIAH
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Open lateral neck dissection is oncologically effective but associated with visible scarring and functional morbidity. Remote-access robotic techniques improve cosmesis but are limited by restricted nodal access or difficulty performing bilateral dissection. The robotic infraclavicular approach for minimally invasive neck dissection (RIA-MIND) was developed to address these limitations. We retrospectively analyzed 62 patients who underwent RIA-MIND between July 2018 and May 2025. Outcomes included nodal yield, peri-operative complications, early oncologic results, and learning curve characteristics. Tongue was the most common primary site (67.7%), and squamous cell carcinoma accounted for 98.4% of cases. Median ipsilateral and contralateral nodal yields were 25 and 17, respectively. 87.1% had no peri-operative complications. Median disease-free survival was 20 months. CUSUM analysis demonstrated progressive improvement in operative efficiency without increased complications. RIA-MIND is a safe and oncologically adequate technique enabling comprehensive unilateral or bilateral neck dissection through small infraclavicular incisions.

IS-367 Transoral Retropharyngeal Node Dissection Using Single-port da Vinci Robotic system

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Retropharyngeal (RP) node metastasis usually occurs in advanced pharyngeal cancers, and surgical removal is challenging due to its proximity to the internal carotid artery. The single-port (SP) da Vinci robotic system provides enhanced visualization and precise instrument control, enabling safe RP node dissection. We report a 71-year-old man with T1N1M0 posterior pharyngeal wall squamous cell carcinoma and a solitary RP node metastasis. He underwent transoral robotic surgery (TORS) with RP node dissection under tracheostomy ventilation. Indocyanine green (ICG) was used to localize the RP node, which was excised en bloc with preservation of critical structures, including the internal carotid artery and sympathetic chain. The patient resumed oral intake and was decannulated within four weeks. Transoral RP node dissection using the SP da Vinci system is a safe and feasible option for selected patients. The addition of ICG fluorescence imaging further improves intraoperative accuracy in this anatomically complex region.

IS-368 Navigating Cervical Metastasis of Unknown Primary in the Era of Transoral Robotic Surgery

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Cervical metastasis of unknown primary (CUP) accounts for 2-4% of all head and neck malignancies, presenting significant diagnostic and therapeutic challenges for head & neck surgeons. Research indicates that identifying the primary tumour leads to improved survival and functional outcomes.

Over the years, advancements in imaging, particularly PET-CT scans combined with targeted biopsies and immunohistochemical staining, have increased diagnostic yields to approximately 55%. The advent of robotic-assisted surgery, alongside a better understanding of human papilloma virus (HPV)-related head and neck cancers, has transformed the management of this challenging condition.

In this presentation, we will review the growing body of evidence and share our local experiences regarding the application of transoral robotic surgery (TORS). Specifically, focusing on the role of tongue base mucosectomy, which has redefined management paradigms for patients with cervical metastasis of unknown primary. We will highlight its advantages in facilitating primary tumour identification, surgical outcomes, and the potential for de-intensifying adjuvant treatments, ultimately enhancing both functional and survival outcomes.

IS-369 Developing a surgical safety checklist in head and neck robotics-an international Delphi process

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Background: The utilisation of Transoral Robotic Surgery (TORS) has grown in popularity over recent years with wide applications for both benign and malignant disease. The introduction of robotic surgery inserts a new variable into an already error-prone healthcare service. Surgical safety checklists (SSC) have been well established in and demonstrated to improve outcomes and reduce complications. This study aims to introduce a novel SSC designed for use specifically in TORS. Methods: A modified Delphi process was utilised to define consensus for a proposed TORS specific SSC. An initial iteration was devised using a literature search. International experts with a significant TORS experience rated each proposed item until consensus was reached. Results Seven experts completed two Delphi rounds. Conclusions: This checklist is the first developed specifically for use with TORS. It has been designed using robust Delphi methodology with several TORS experts from high-volume centres. The aim of the TORS SSC is to be used alongside the WHO SSC, and requires ideally long-term and multi-centre adoption to validate its implementation.

IS-370 Robotic Thyroid Surgery : From Zero to One — A Beginner's Strategic Roadmap

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In robotic-assisted head and neck surgery, Robotic Thyroid Surgery (RTS) remains technically challenging for beginners. For a novice surgeon, clinical success is determined less by intraoperative manual dexterity and more by preoperative preparation. This essential phase includes strict patient selection, precise anatomical orientation, and systematic workspace planning. Given its clinical prominence in Asia, Video-Assisted Neck Surgery (VANS) serves as a vital bridge in this training trajectory. Mastering endoscopic spatial awareness through VANS allows trainees to bridge the technical gap in laparoscopic skills before advancing to the robotic platform. This progression significantly reduces the risks of complications and conversion to open surgery. Gradual involvement in structured procedural steps, guided by staged participation and clear learning milestones, allows skills to develop progressively while maintaining patient safety. This pathway ensures that novice surgeons establish a safe, reproducible, and confident foundation in robotic thyroid procedures.

IS-371 TAGA-SP : A Two-step Transaxillary Gas-insufflation Single-port Robotic Thyroidectomy

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For robot-assisted transaxillary thyroidectomy, the Gas-insufflation One-Step TransAxillary approach provides a fully robotic gas-inflated technique but has limited assist ports for suction and bleeding control. Building on our prior experience with the TransAxillary Gas-insufflation Approach (TAGA) using the da Vinci Xi system, we refined this method for application with a single-port (SP) platform. TAGA-SP is a two-step technique combining an initial endoscopic phase with subsequent SP robotic dissection. After flap creation and workspace establishment, a supportive assist port was maintained for suction and assistance. Thyroid lobectomy was then performed using the da Vinci SP system. All procedures were completed successfully without conversion to open surgery. Operative time decreased progressively with experience, demonstrating a favorable learning curve. No major complications occurred. Two patients experienced transient vocal cord paresis that resolved spontaneously. By incorporating an endoscopic phase and preserving an assist port, this technique enhances intraoperative safety and provides a practical entry pathway for surgeons transitioning to robotic thyroid surgery.

IS-372 The Anatomical and Histological Analysis of the Pharyngeal Muscles of Mice

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Oropharyngeal dysphagia caused by sarcopenia or radiotherapy can lead to malnutrition, aspiration, and even death. However, effective therapeutic strategies except rehabilitation remain scarce. Among the swallowing-related muscles, the pharyngeal constrictor muscles play a central role in the oropharyngeal phase of swallowing, yet their anatomical and histological profiles in mice are poorly defined. While extensive studies have been conducted on hindlimb skeletal muscles in mice, research on swallowing muscles is limited. We have recently established a method for isolating the inferior pharyngeal constrictor muscle from mice and initiated histological analysis. Using H&E staining, we aim to further confirm the muscle and observe myofiber morphology. Then age-related differences in muscular structure will be analyzed. We plan to compare these features with those of hindlimb skeletal muscles. This study will provide fundamental anatomical and histological insights into murine pharyngeal muscles, which are expected to support future investigations into muscle degeneration, contributing to the development of preventative strategies and therapies for oropharyngeal dysphagia.

IS-373 Withdrawn

IS-374 High-Resolution Pharyngeal Manometry in Post-Total Laryngopharyngectomy

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Dysphagia is an underrecognized yet common sequela following total laryngopharyngectomy (TLP), with reported prevalence ranging from 17% to 72%. Pharyngeal high-resolution manometry with impedance (P-HRM-I) enables detailed evaluation of bolus propulsion, pharyngeal pressurization, and upper esophageal sphincter (UES) opening dynamics. In this study, ten patients who underwent TLP were evaluated using P-HRM-I after surgery and compared with a control group. In patients after TLP, P-HRM-I revealed characteristic pressurization patterns and compensatory pharyngeal hypercontractility in the presence of UES narrowing. Notably, in approximately half of the TLP patients, UES pressure was markedly reduced or absent. P-HRM-I also highlighted the frequent coexistence of esophageal dysmotility in this population. Further studies with larger cohorts and prospective designs are warranted to determine whether esophageal dysmotility is a pre-existing condition or develops secondary to surgery, which may provide deeper insights into the underlying pathophysiological mechanisms of post-laryngectomy dysphagia.

IS-375 Treatment result of cricopharyngeus balloon dilation in NPC patients suffering from dysphagia

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Importance : Dysphagia is a heavy burden in nasopharyngeal carcinoma (NPC) patients. Limited data on the efficacy of interventional treatments is available.

Objective : Investigates the efficacy of balloon dilation to the cricopharyngeus and upper esophagus for the treatment of pharyngoesophageal dysphagia in NPC patients.

Design : Prospective cohort trial conducted between Jan 2020 to April 2024. Videofluoroscopic swallowing studies (VFSS) were blinded for scoring.

Setting : Single tertiary referral center study

Participants : 126 NPC patients in remission were screened for pharyngoesophageal dysphagia. 41 met the eligibility criteria. 5 patients refused to participate, 36 were recruited to our study. 34 completed the procedure.

Intervention : Balloon dilation of cricopharyngeus and upper esophagus performed under local anesthesia

Main Outcome and Measures : Objective evaluation of swallowing pathophysiology with temporal measures, pharyngoesophageal segment opening (PESO) and penetration aspiration scale (PAS) using VFSS. Clinical evaluation with Functional Oral Intake Scale (FOIS). Swallowing related quality of life rated with the Chinese version of the MD Anderson Dysphagia Inventory (MDADI). "Responder" to dilation is defined as "least one point improvement in PAS of thin consistency to at least 5 or below at post-dilation 1 month". All evaluations were performed pre-, post-1 month, post-3 months and post-6 months of dilation.

Results : 36 patients with median age of NPC diagnosis at 45. 5, 72% were male. The lapse time to balloon dilation was 17. 0 years. 75% of patients received non-oral feeding recommendations upon recruitment, 42% adopted risk feeding. At post-dilation 1 month, PAS improved from 7 to 5 and PESO improved from 2 to 1, indicating patients having decreased obstruction of flow in the pharyngoesophageal segment and improved from an aspiration state to penetration only. Of all the 15 patients on risk feeding, 5 (33%) died of non-COVID related pneumonia in a median 24.5 months follow up.

Conclusions and Relevance : Balloon dilation reduces penetration and aspiration of thin fluid consistency, however the effect was not observed in semisolid consistency. Contrary to previous study, the procedure did not improve duration of cricopharyngeus opening and swallowing related quality of life. In our cohort, it is observed that NPC patients who adopt risk feeding have a high chest infection related mortality rate.

Trial Registration : Ethical approval was received from the University of Hong Kong/ Hong Kong Wester Cluster Institute Review Board (HKU/HKWC IRB No. UW 16-442).

IS-376 Overview of Flexible Endoscopic Evaluation of Swallowing (FEES) Before and After Dysphagia Management at Cipto Mangunkusumo Hospital for the Period January — December 2023

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Background : Dysphagia data in Indonesia remains limited. This study analyzes patient characteristics, nutritional status, and Flexible Endoscopic Evaluation of Swallowing (FEES) outcomes at Dr. Cipto Mangunkusumo Hospital.

Methods : A cross-sectional study was conducted on 52 subjects using electronic medical records from January to December 2023.

Results : Most patients were aged 45-59 (40. 4%), male (53. 8%), and had normal nutritional status (50%). Central nervous system disorders were the primary etiology (46. 2%). Most cases were severe neurogenic oropharyngeal dysphagia (90. 4%), with 61. 5% requiring NGT feeding. Evaluation FEES showed significant improvement : standing secretions decreased (92. 3% to 84. 6%), penetration dropped (50% to 28. 8%), and aspiration fell (34. 6% to 11. 5%). Positive pharyngeal squeeze increased from 67. 3% to 94. 2%. Although thin liquids initially showed the highest penetration/aspiration risk (PAS 8 : 40. 5%), PAS 1 scores (normal) increased across all consistencies during follow-up. Overall occurrences of leakage, residue, and silent aspiration decreased following medical rehabilitation.

Conclusion : Dysphagia at RSCM predominantly affects middle-aged males with CNS disorders. FEES results demonstrated significant functional improvements and reduced aspiration risks post-management, confirming the efficacy of multidisciplinary rehabilitation in enhancing swallowing safety and efficiency.

Keywords : aspiration, dysphagia, FEES, penetration, residue, swallowing test.

IS-377 Withdrawn

IS-378 Psychometric Testing of the 15D and Its Application with SF-36 and OHIP-14 in Midface Fractures

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Background : Midfacial fractures may cause persistent functional, aesthetic, psychological, and social impairment. Outcome evaluation should therefore include patient-reported quality of life (QoL) in addition to clinical and radiological parameters. While the SF-36 and OHIP-14 questionnaires have been validated in Indonesian, the 15-Dimension (15D) questionnaire has not.

Objective : To assess the validity and reliability of the Indonesian adaptation of the 15D questionnaire and to describe postoperative quality of life in patients with midfacial fractures, as well as its association with injury severity based on the Facial Injury Severity Scale (FISS).

Methods : This observational study consisted of two phases : cross-cultural adaptation and psychometric testing of the 15D questionnaire, followed by postoperative QoL assessment using the 15D, SF-36, and OHIP-14. Associations between QoL scores and FISS were analyzed.

Results : The Indonesian 15D demonstrated good validity and internal consistency (Cronbach's alpha＞0. 70). Most patients reported moderate to good postoperative QoL. No significant association was found between FISS and QoL outcomes.

Conclusion : The Indonesian 15D is a valid and reliable instrument for assessing quality of life after midfacial fracture treatment. Injury severity does not necessarily reflect patient-reported QoL.

Keywords : Midfacial fracture ; quality of life ; 15D ; validity ; reliability

IS-379 Nasal Reconstruction in Granulomatosis with Polyangiitis Using an L-shaped Cartilage Graft

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Methodology : Patients exhibited progressive saddle nose deformity as a result of GPA. To reconstruct the nose, a single-stage open rhinoplasty was conducted involving the placement of an independent L-shaped costal cartilage implant. Graft formation and fixation were performed according to the author-developed method. Results : From 2012 to 2023, seven patients with severe saddle nose deformity underwent implantation of modified L-shaped costal cartilage strut grafts. Except for one complicated case, all patients reported satisfaction with the surgical outcomes. Conclusions : In this study, the visual appeal of the nose and the respiratory capabilities of the patients improved significantly. The L-shaped costal cartilage strut graft is an effective technique for saddle nose deformity correction. This technique provides excellent outcomes, including improved nasal function and aesthetics. Further studies with a larger sample size are needed to confirm these findings.

IS-380 Withdrawn

IS-381 Complications and surgical outcomes of tip plasty using 3D Printed Polycaprolactone Plate in Asian

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We aimed to transplant an additional 3D printed polycaprolactone (PCL) graft to the tip plasty using the SEG to reinforce the SEG. The study included 43 patients (20 males and 23 females; mean age, 28.7 years; range, 17–58 years) who received rhinoplasties using the SEG method combined with a 3D printed PCL graft from November 2016 to August 2017. The mean observation period was 14.8 months (range, 12–20 months). Twenty-six patients rated their satisfaction level as excellent, 13 rated good, 3 rated fair, and 1 rated poor. In total, 28 patients did not exhibit tip drooping at the 1-year follow-up; 13 patients demonstrated mild to moderate tip drooping, and 2 patients demonstrated severe tip drooping. Thirty-one patients demonstrated "stiffness" of the nasal tip, of which 11 patients reported discomfort, and 20 patients reported none; two patients demonstrated deviation of the tip. The main problem of tip plasty arises in Asians when not enough cartilage is used to raise the nasal tip, or if it is too weak; in these cases, it is difficult to raise the nasal tip sufficiently.

IS-382 Postoperative Outcomes of Open Septorhinoplasty and Hemitransfixion Approaches

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With the recent expansion of insurance coverage in Japan to include endoscopic septoplasty types III and IV, surgical options for nasal septal deviation and external nasal deformities have expanded. This retrospective study evaluated postoperative outcomes of patients who underwent open septorhinoplasty (OSRP) or the hemitransfixion (HTF) approach at our institution. OSRP was mainly indicated for severe superior septal deviation or associated external nasal deformity, whereas HTF was selected for septal deviation with anterior (caudal) curvature. Surgical outcomes were assessed by comparing preoperative and postoperative nasal airflow, and OSRP cases were additionally evaluated using the Standardized Cosmesis and Health Nasal Outcomes Survey (SCHNOS). Both groups showed significant postoperative improvement in nasal obstruction, with no major complications observed. These results suggest that appropriate selection of surgical approach based on pathology allows safe surgery with stable postoperative courses and favorable functional outcomes after the expansion of insurance coverage.

IS-383 Validation – Comparative Assessment of Satisfaction and QoL in Indonesian Patients Post-Rhinoplasty

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Background : Successful nasal reconstruction requires aesthetic and functional restoration. Validated instruments—including Rhinoplasty Outcome Evaluation (ROE), Functional Rhinoplasty Outcome Inventory-17 (FROI-17), Nasal Obstruction Symptom Evaluation (NOSE), and EQ-5D—assess patient satisfaction, function, and quality of life. This study validates Indonesian ROE and FROI-17 — and evaluates ROE, FROI-17, NOSE correlations with EQ-5D in nasal fracture reconstruction patients. Methods : Two-phase cross-sectional study ; Phase 1 (n = 30 outpatients) for validation ; Phase 2 (n = 40 patients) for pre/postoperative ROE, FROI-17, NOSE, EQ-5D assessments. Results : Indonesian ROE/FROI-17 showed strong item validity (Spearman's $\rho = 0.52$–0.86, $p < 0.05$) and internal consistency (Cronbach's $\alpha > 0.7$). Scores improved significantly postoperatively ($p < 0.05$). ROE correlated positively with EQ-5D ($\rho = 0.46$–0.54, $p < 0.05$) ; FROI-17/NOSE negatively postoperatively ($\rho = -0.46/-0.40$, $p < 0.05$). Conclusion : Indonesian ROE and FROI-17 are reliable for post-reconstruction evaluation ; ROE correlates best with EQ-5D for quality-of-life assessment. Keywords : nasal fracture reconstruction, QoL, ROE, FROI-17, NOSE, EQ-5D.

IS-384 Staged Treatment Strategy for Coexisting Nasal Septal Perforation and Suspected Empty Nose Syndrome

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We investigated a treatment strategy for patients with coexisting inferior turbinate (IT) atrophy suspicious for empty nose syndrome (ENS) and nasal septal perforation (NSP). Both ENS and NSP can cause a wide range of symptoms related to nasal airflow disturbance ; however, it is difficult to determine preoperatively which condition is the primary cause of nasal symptoms. The NSP closure procedure requires the use of septal mucosal flaps, whereas the inferior meatus augmentation procedure (IMAP) involves submucosal graft placement, making simultaneous performance of these procedures difficult.

Therefore, we adopted a staged strategy in which the indication for NSP closure was determined using the septal patch test (SPT), and IMAP was subsequently performed based on the cotton test when ENS symptoms became evident after closure. Among four cases, three showed negative cotton test results preoperatively but became positive after NSP closure and underwent IMAP, resulting in symptomatic improvement. The remaining case showed no ENS-related symptoms after NSP closure.

These findings suggest the validity of a staged surgical approach for patients with coexisting NSP and IT deficiency.

IS-385 Surgical Outcomes of Geriatric Chronic Rhinosinusitis

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Purpose : Geriatric chronic rhinosinusitis (CRS) is defined as CRS in patients over the age of 65 ; however, there is currently no definitive clinical diagnostic consensus. Previous literature analyzing the etiology of geriatric CRS has identified a higher proportion of neutrophilic infiltration and a greater prevalence of fungal and bacterial sinusitis compared to younger patients. This study aims to analyze the clinical characteristics and postoperative outcomes of geriatric patients with CRS undergoing functional endoscopic sinus surgery (FESS).

Methods : A retrospective study was conducted on patients aged 65 and older diagnosed with CRS who underwent FESS at our institution between 2015 and 2020. Data collected included medical history, age, sex, and preoperative blood laboratory values (neutrophil, eosinophil, and basophil percentages ; serum IgE levels ; and number of positive MAST allergen items). Assessment tools included olfactory function tests, endoscopic and radiologic grading (Nasal polyp score, Lund-Kennedy score, and Lund-Mackay score), and preoperative SNOT-22 scores. Postoperative data included tissue eosinophil counts from biopsies and the incidence of office-based debridement or revision FESS.

Results : A total of 85 patients were included, with a mean age of 70. 8 years (44 males, 52% ; 41 females, 48%). Mean preoperative clinical values were as follows : Olfactory test : 8. 3 (sniffing stick). Blood markers : Neutrophils 56. 8%, eosinophils 2. 1%, basophils 0. 63%, serum IgE 552. 35 IU/mL, and an average of 1. 3 positive MAST items. Clinical scores : NP score 3. 1, Lund-Kennedy score 5.4, and Lund-Mackay total score 11. 4. SNOT-22 : 25. 4. Histopathological analysis revealed that 6 cases (19. 4%) had an average eosinophil count >10 per high-power field (HPF), while 8 cases (25. 8%) had ≤ 10. Five cases (16. 1%) required revision FESS at a mean of 284. 6 days postoperatively, and 12 cases (38. 7%) required surgical debridement at a mean of 49. 5 days.

Conclusion : This study indicates that approximately 38. 7% of geriatric CRS patients require debridement within two months post-FESS, and approximately 16. 1% require revision surgery within one year. Therefore, intensive follow-up is recommended during the first three months to maintain nasal patency and reduce the need for further debridement. Continuous monitoring up to 12 months is advised for the early detection of potential recurrence.