SBORNÍK ABSTRAKT

22nd Czech - German ENT Days

13. - 14. září 2024

Hermitage Hotel Prague, Czech Republic

Záštita:

prof. MUDr. Jan Plzak, Ph.D.
- President of CEORL-HNS
- Head of Dpt. of ORL-HNS, 1st Faculty of Medicine, Charles University, University Hospital Motol, Prague

prof. MUDr. Milena Kralickova, Ph.D.
- Rector of Charles University

doc. MUDr. Bohuslav Svoboda, CSc.
- Mayor of the capital city of Prague

Asociace klinických logopedů - vzdělávací akce zařazena do systému celoživotního vzdělávání pro obor klinická logopedie

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- Dpt. of ORL-HNS, Carl Gustav Carus University Hospital, Dresden

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- German General Secretary

CZECH-GERMAN ENT RUN 2024 I.

CZECH-GERMAN ENT RUN 2024- MAP

- 3,1 km / 6,2 km

OPENING CEREMONY

LATERAL SKULL BASE I. (ROUND TABLE- VESTIBULAR SCHWANNOMA)

LATERAL SKULL BASE II.

TWO RARE CASES OF UNILATERAL MULTIFOCAL COCHLEOVESTIBULAR SCHWANNOMA – IMMUNOHISTOCHEMISTRY, GENETIC ANALYSIS AND SURGICAL MANAGEMENT

Julia Reiber [1], Jonas Scheffler [1], Katrin Hoffmann [2], Per Cayé-Thomasen [3], Sabrina Kösling [4], Sandra Leisz [5], Arne Liebau [1], Christian Mawrin [6], Torsten Rahne [1], Christian Strauss [5], Udo Siebolts , Stefan Plontke [1],

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Introduction Among cochleovestibular schwannoma (CVS) cases, unilateral multifocality is a rare phenomenon. Multifocal unilateral CVS occurring in the cerebellopontine angle (CPA), internal auditory canal (IAC), or inner ear has been documented in patients with neurofibromatosis 2-related schwannomatosis and those with mosaicism of the NF2 gene. Unilateral multifocal CVS of sporadic origin however appear to be extremely rare. Material and Methods In two adult patients with multifocal unilateral schwannomas of the inner ear and the IAC or CPA, the tumors were surgically removed in either a single or two-stage procedure. Hearing was rehabilitated with a cochlear implant (CI). Histological and genetic characteristics of each tumor were analyzed through immunohistochemistry and a 340-gene parallel sequencing panel. Next-generation sequencing of the NF2 gene was performed on unaffected tissue. Results Intraoperatively, both cases exhibited two unilateral, macroscopically distinct tumors. Genetic analysis of peripheral blood cells revealed no NF2 mutations. In Case 1, a pathogenic NF2 variant was found to be identical in both tumors. Conversely, NF2 variants differed between the tumors in Case 2. Word recognition score for monosyllables at 65 dB SPL with CI was 55% at 6 years follow up and 60% at 4.5 years follow up, respectively. Conclusion The occurence of multifocal unilateral cochleovestibular schwannomas without pathogenic NF2 variants in unaffected blood leukocytes can be linked to mosaic NF2-related schwannomatosis or sporadic mutations, which might be overlooked due to their extreme rarity. We were able to demonstrate that although being challenging, single or two-stage resections of both unilateral tumors in the inner ear and the IAC/CPA were possible with successful hearing rehabilitation with CI.

IMAGING OF VESTIBULAR SCHWANNOMA

Jiri Lisy [1],

[1] Department of Radiology, Nemocnice Na Homolce, Prague

MRI using 3D-T2 heavily weighted sequence and 3D-T1 thin slices sequence after a contrast application is a golden standard for imaging of vestibular schwannoma. The goal of imaging is to prove/exclude involvement of internal auditory canal (IAC) or cerebellopontine angle (CPA), differential diagnosis particularly CPA meningioma and facial nerve schwannoma, staging (Koos classification). Therefore MRI would help to plan a treatment strategy – either wait and scan, surgical approach (retrosigmoid, subtemporal, translabyrintine) or Leksell gamma knife (LGK). MRI is used to follow patients usually every 1 year, either who are undergoing the wait and scan algorithm or after treatment. The knowledge of a surgical technique (potential graft application) and behaviour of a tumour after LGK is an important information for evaluation of a possible recurrence of a tumour or regrow of tumour residuum. Detailed clinical information allows better evaluation of an imaging finding.

TRANSPETROSAL APPROACHES IN NEUROSURGERY: USE, INDICATIONS, AND INTERDISCIPLINARY COOPERATION.

R. Kroupa [1], M. Formanek [2], M. Macejka [1], E. Misiorzová [1], P. Seichter [1],
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Transpetrosal approaches represent lateral transbasal routes They often allow access to midline lesions without significant manipulation of the brain, thereby reducing the risk of new postoperative neurological deficits. These approaches frequently provide better visualization of anatomical structures and enable more radical surgical resection. Additionally, they can be combined with other commonly used approaches. Depending on which part of the petrous bone is resected, these approaches are classified into anterior, posterior, and combined petrosal approaches. In recent years, we have been performing surgeries requiring petrous bone resection in cooperation with ENT surgeons. Particularly for large lesions, surgeon rotation is highly beneficial, allows the surgeon to keep full concentration throughout the procedure. Posterior petrosal resection involves partial resection of the petrous pyramid to allow access to the petroclival region, the anterior cerebellum, and the brainstem at the level of cranial nerves III-VIII. There are several variations of posterior petrosal resection, differing in the extent of the petrous bone resected. retrolabyrinthine, translabyrinthine, transotic, and transcochlear approaches. In our patient series, we have always been able to resect the lesion using a conservative retrolabyrinthine approach, or occasionally a combined anterior and posterior petrosal resection. Anterior petrosal resection (Kawase approach) - involves drilling off the petrous apex, allowing direct subtemporal access to the anterolateral pons and the peritrigeminal safe entry zone for brainstem lesions. This approach also allows for the elegant removal of tumors in the Meckel's cave region. The main use of transpetrosal approaches are surgeries of petroclival and cerebellopontine angle lesions. Particularly for large tumors with brainstem deviation extending beyond the midline and significant mass effect in the posterior fossa, these approaches reduce complications caused by retraction, ischemia, and separation of the tumor from brain tissue. They are also useful for lesions with supratentorial extension and similarly for meziotemporal tumors and pseudotumors. For lesions in the ventrolateral pontine region, petrosal approaches, whether anterior or combined petrosectomy, allow for wide and multi-angled access to the peritrigeminal safe entry zone to brainstem.

COMPREHENSIVE MANAGEMENT OF SKULL BASE PATHOLOGIES USING INFRATEMPORAL APPROACHES

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Introduction: Infratemporal approaches (IFT) are part of transtemporal approaches utilized to manage complex pathological processes affecting the lateral skull base. Methods: We retrospectively evaluated patients who underwent surgery for lateral skull base pathology using infratemporal approaches from January 2016 to December 2023 (men/women = 11/24; 7-77 years). Malignant tumors were treated in 8 cases (carcinoma: 2, sarcomas: 4, metastatic pleomorphic adenoma: 1, melanoma: 1), and benign tumors in 20 cases (paragangliomas: 14, meningiomas: 3, schwannomas: 3), petrous cholesteatoma: 6, and one aneurysm of the petrous segment of the internal carotid artery (ICA). Results: IFT A (21 cases) with VII nerve transposition was used for pathologies affecting the infralabyrinthine petrous bone, petrous apex, jugular bulb, and horizontal segment of the petrous ICA with potential intradural extension. The peel-off modification of anterior rerouting of the VII nerve preserved nerve function (HBS1) in most patients. The incidence of IX-XI nerve dysfunction was determined by the pathology type. IFT B (8 cases) with mobilization of the petrous ICA was used for pathologies extending medially from the horizontal and vertical parts of the petrous ICA to the central clivus. Preoperative balloon occlusion tests (BOT) and ICA stenting were performed in most patients. IFT C (1 case) was used for a malignant tumor spreading peritubally into the infratemporal fossa, nasopharynx, and parasellar region. IFT D (5 cases) addressed processes affecting the middle skull base with extra- and intracranial extension. Two patients experienced severe postoperative bleeding from the ICA after IFT A, with one case resulting in death. Conclusion: IFTs enable effective management of complex pathological processes affecting the lateral skull base. A multidisciplinary approach is optimal for minimizing complications. This work was supported by the research project of Charles University - Cooperatio 43 Surgical Disciplines.

INTRACOCHLEAR ELECTRODE PLACEMENT - HITTING THE SWEET SPOT

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Introduction Optimal position of the electrode array during a cochlear implant surgery is crucial for a performance outcome. Ideally, the array should be placed close to modiolus in the scala tympani with a minimal insertion trauma. An electrode position in the cochlea can be checked either electrophysiolocally (by ECoG, transimpedance matrix), or X-ray (fluoroscopy, HRCT, CBCT). Methodology So far, the electrode position after a surgery was checked in a surgical theatre by fluoroscopy only during one session. Nevertheless, there was a need to monitor an array insertion on-the-run. This requirement is fulfilled both by electrocochleography or by a transimpedance matrix algorithm. Results On a routine basis, an array insertion is monitored by electrocochleography in case of a certain number of surviving hair cells, or, de novo, by a transimpedance matrix. This method, which is company specific, is ideal for a detection of a tip-foldover in precurved arrays. Conclusions The transimpedance matrix algorithm is a reliable method, comparable with a fluoroscopy, to detect anomalous intracochlear position of the electrode array during a cochlear implantation.

HEARING OUTCOMES IN MASTOID OBLITERATION REGARDING TYPE OF TYMPANOPLASTY

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Introduction: Canal wall down (CWD) mastoidectomy is a surgical technique used for successful eradication of middle cholesteatoma. The remaining open tympanomastoid cavity is often associated with several problems. To prevent them obliteration technique was described using synthetic or autologous material. Further, a favourable effect on hearing loss is expected. In our study, we focused on type of tympanoplasty on hearing gain after CWD mastoidectomy with mastoid obliteration. Methods: In our retrospective study a total of 100 patients underwent CWD with mastoid obliteration at our ENT department in 2017-2023. 36 patients were obliterated during the first surgery (primary obliteration) and 64 of them during revision surgery (mostly after CWD mastoidectomy without obliteration – secondary obliteration). Every patient underwent pure tone audiometry preoperatively and 3-6 months postoperatively - PTAs and mean ABGs were obtained. Data were statistically evaluated. Results: 42 women and 58 men were included, mean age of 42 years. We operated on 49 left ears and on 51 right ears. As a material of obliteration we used in 29 patients bioactive glass and in 71 bone paté. Partial obliteration (excluding epitympanum) was performed in 28 cases and total (including epitympanum) in 71 cases. In the reconstructive part of otosurgery we used PORP in 40 cases, TORP in 37 and only myringoplasty in 7 cases; 16 patients needed no reconstruction. A statistically significant difference in hearing gains was observed in type of tympanoplasty. Mean hearing gains in PTA postoperatively in myringoplasty, PORP and TORP were 3,6;10,6;12,2 dB ($p<0,01$); mean differences of ABG in myringoplasty, PORP and TORP were 4,4;7,5;10 dB ($p<0,1$). Conclusion: The type of tympanoplasty represents an important factor in hearing outcomes.

AUDIOLOGICAL RESULTS OF CANAL WALL UP VERSUS CANAL WALL DOWN SURGERIES IN THE TREATMENT OF MIDDLE EAR CHOLESTEATOMA

Martin Huška [1],
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The aim of the presentation is to describe the differences between canal wall up and canal wall down middle ear surgeries with an emphasis on the differences in audiological results. Medical records of 47 patients who had a primary surgery due to middle ear cholesteatoma between December 2019 and December 2023 were reviewed retrospectively. Hearing thresholds of CWU and CWD surgeries were compared.

HEARING SCREENING

Viktor Chrobok [1],
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Abstrakt není k dispozici

PRAGUE'S ECHO: THE OTOLOGICAL CLINIC OF THE GERMAN UNIVERSITY IN PRAGUE AND ITS INFLUENCE ON CZECH-GERMAN OTOLARYNGOLOGY 1874-1945

Ivan Kalivoda [1],
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The first specialized elective lectures on otology at the Charles-Ferdinand University in Prague were organized by the Czech German lecturer Ferdinand Artl from 1843 to 1854. These lectures, the first of their kind in the Austrian monarchy, primarily focused on the anatomy of the ear. Among their participants was Anton von Tröltsch, the founder of German otolaryngology, whose ideas later influenced Prof. Emanuel Zaufal. In 1869, Prof. Zaufal introduced otology education for medical students at the Prague Medical Faculty, a field that had not been represented at the university until then and was little respected by both the public and the medical community. Thanks to Prof. Zaufal's efforts, otology was established as a respected discipline at the university. Thus, Prague became one of the first medical faculties in Europe where the issue of ear diseases was systematically taught. After several difficulties, the ear clinic was opened on May 1, 1874, and after the university was divided in 1882, it was assigned to the German Medical Faculty. Thanks to this clinic, a number of specialists were trained, among whom the first protagonists of Czech otolaryngology were constituted – Assoc. Prof. Czarda, Prof. Kaufmann, and Prof. Kutvirt. These experts were at the birth of the otological-pharyngological clinic, which was founded on May 15, 1892, at the Czech Medical Faculty of Charles-Ferdinand University in Prague. At the German otolaryngological clinic, which operated until the end of World War II, significant experts such as Otto Piffl (Prague), Karl Amersbach (Düsseldorf), Leonhard Kraus (Marburg), Karl Mündnich (Mainz, Münster), and Rudolf Link (Berlin, Hamburg) worked. Czech and German otolaryngology are historically closely linked and interdependent. It is important to remember this cooperation and continue to develop mutual relationships based on it.

VOICE PROSTHESIS- HANDS ON COURSE (INSTRUCTIONAL COURSE I.)

ANTERIOR SKULL BASE & RHINOLOGY

SURGICAL THERAPY OF SINONASAL CANCER – EXTERNAL/ENDONASAL APPROACHES (CASE REPORTS)

Marek Plášek [1], Martin Formánek [1],
[1] Městská nemocnice Ostrava

Surgical therapy of sinonasal cancer – external/endonasal approaches (case reports) M. Plášek, M. Formánek Introduction Sinonasal malignancies make up <5% of all head and neck neoplasms, with an incidence of 0.5-1.0 per 100,000. Symptoms like nasal obstruction, secretion, epistaxis, hyp/anosmia are typical for these neoplasms, especially when asymmetric. We present surgical therapy of 3 patients with exhibition both – external and endonasal approaches. Case reports 1) 74- year old male visited our ENT outpatients clinic with nasal obstruction on both sides lasting 6 months. Examination (including CT/MRI scans) showed tumor infiltration of external nose, nasal cavities and top of the hard palate, histology: spinocellular carcinoma. External approach was used in radical resection, adjuvant radiotherapy followed. After 6 months, patient is without relaps, epithesis of external nose is going to be made (3D print). 2) 74-year old male with pain and erythema of external nose was referred from local ENT outpatients to our department. At first, condition looked like phlegmon of external nose with septal hematoma, conservative therapy was without improvement. Biopsy proved spinocellular carinoma. CT/MRI showed tumor infiltration of external nose, nasal septum (both sides). External approach was used in radical resection, adjuvant radiotherapy followed, after 6 months patient is without relaps, epithesis of external nose is going to be made. 3) 79-year old male came to our outpatients with nasal obstruction on the left side and repeated epistaxis. Endoscopy showed black tumor attached to nasal septum without infiltration of lateral nasal wall and hard palate (also according to CT/MRIs), biopsy proved mucosal melanoma. Endonasal endoscopic radical resection was done, short follow up is without persitence of the tumor with good local healing, adjuvant imunotherapy is considered. Conclusion Best therapeutic results (5-year survival) in patients with sinonasal malignancies are achieved with radical surgical resection + adjuvant radio(chemo)therapy. We present surgical therapy of 3 patients from our department in last 6 months with exhibition both – external and endonasal approaches. Marek Plášek, MD Otorhinolaryngology head and neck surgery Městská nemocnice Ostrava marek.plasek@mnof.cz

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VASCULARIZED PEDICLED FLAPS FOR SKULL BASE DEFECT RECONSTRUCTION - A SINGLE CENTRE RESULTS

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Introduction: The authors present a single centre results of skull base defect reconstruction with vascularized pedicled flaps. Methods: Results of skull base defect reconstruction with vascularized pedicled flaps (nasoseptal flap or pericranial flap) performed from 2010 to June 2024 were reviewed retrospectively and rate of postoperative cerebrospinal fluid leak (CSF) was assesed, according to the type of flap, diagnosis and type of approach. Results from 2010-2016 and 2017-2024 were compared to asses the learning curve. Results: A total of 139 surgeries with skull base reconstruction with a pedicled flap were performed from 2010 to June 2024, in 75 females and 64 males, mean age 53 (min. 5, max. 79). The most frequent diagnoses were meningioma (47/139, 33,8 %), craniopharyngioma (20/139, 14,4 %) and spontaneous CSF leak (14/139, 10,1 %). Total rate of postoperative CSF leak was 10,8 %, with all the cases of CSF leak occuring in reconstructions using nasoseptal flap (15/133, 11,2 %). No postoperative CSF leak occured in cases in which a pericranial flap was used. According to diagnosis, postoperative CSF leak occured most frequently in meningiomas (6/47, 12,7 %). According to approach, CSF leak was the most frequent in transcribriform approach (4/29, 13,8 %), and according to the time period, it occured more frequently in 2010-2016 period (8/53, 15,1 %), compared to the 2017-2024 period (7/86, 8,1 %). Conclusions: Skull base reconstruction with vascularized pedicled flaps is a safe and highly effective technique, superior to free grafting techniques. It can be used safely and with good functional results in numerous pathologies of anterior and middle skull base indicated for transnasal endoscopic surgery. The presented results are consistent with the current published data.

ENDOSCOPIC CLOSING OF CEREBROSPINAL FLUID LEAK

Martin Kracik [1],
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The first part will discuss anatomical notes of rhinobasis. We will analyze the causes of cerebrospinal fluid leakage through damaged meninges. The lecture will then proceed towards the diagnosis of cerebrospinal fluid leakage into the nasal cavity or paranasal sinuses, including the precise localization of meningeal fistulas leak. In the next phase of the lecture, the closure of the fistula with a plug of mesenchymal tissue will be described, as well as the use of multiple layers, including a locking system utilizing cartilage or bony plate. At the end of the lecture, there will be notes on treatment and subsequent care.

SINONASAL INVERTED PAPILLOMAS: A SINGLE-CENTER EXPERIENCE, FNUSA BRNO, CZ (2012-2022)

Vlastimil Vlček [1], Jan Hanák [1], Břetislav Gál [1],
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Introduction Sinonasal inverted papillomas (SIPs) are uncommon benign tumours arising from the Schneiderian membrane of the nasal cavity and paranasal sinuses, typically in the maxillary and ethmoid regions. Although they are considered as benign lesions, they are locally aggressive and with potential for malignant transformation. SIPs typically present with symptoms such as nasal obstruction and epistaxis. Surgical resection is the primary treatment modality for SIPs, with approaches ranging from endoscopic techniques to open surgery, depending on the extent and location of the tumour. Methods This retrospective study was conducted at St. Anne's University Hospital, Brno, Czech Republic, covering the period from 2012 to 2022. It analysed data from 66 patients who were diagnosed with SIPs, focusing on demographics, clinical manifestations, treatment methods, histopathological results, and postoperative outcomes. The primary objective was to evaluate recurrence rate and the incidence of malignant transformation. Results Patients included 24 males and 42 females, with an average age of 57 years. Key symptoms included unilateral nasal obstruction (54 cases) and epistaxis (24 cases). Predominant tumour sites were the maxillary sinus (34 cases) and ethmoid cells (16 cases). Histopathological examination identified predominantly benign tumours (63 cases), malignant transformation was observed in 4.55% (3 cases), all synchronous. Most tumours were classified as Krouse stage III (30 cases), recurrence rate was 28.1% (16 cases). Surgical interventions comprised endoscopic resection (55 cases), combined approaches (10 cases), 1 patient was primarily treated by radiotherapy due to inoperability after histopathological verification of malignancy in SIP environment. The average disease-free interval was 21 months, with patients without recurrence followed up for an average of 28 months. Conclusion In conclusion, our study focused on sinonasal inverted papillomas, showing that most were benign with mostly unilateral nasal obstruction. The tumours were commonly found in the maxillary sinus and were typically surgically removed at an advanced stage. Patients generally remained free of the disease for 21 months after treatment.

AN UNUSUAL CASE OF MYXOMA OF THE NASAL SEPTUM EXPANDING TO THE PARANASAL SINUSES AND ANTERIOR SKULL BASE

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Introduction: Myxoma, first described by Virchow in 1871, is a rare mesenchymal tumor that predominantly affects the heart's atrium but can also occur in various tissues such as bone, skin, muscle, and subcutaneous tissues. Myxomas are typically found in the mandible, maxilla, and facial soft tissues in the head and neck region, with rare occurrences in the nasal cavity and paranasal sinuses. Nasal myxomas, though uncommon, should be considered in the differential diagnosis of nasal masses, especially when common etiologies do not fully explain the clinical presentation. This article discusses a unique case of a nasal myxoma that extensively involved all paranasal sinuses and the anterior skull base, emphasizing the importance of a thorough diagnostic and surgical approach for such rare conditions. Methodology: A 16-year-old male patient presented with progressive bilateral nasal obstruction over several years, which worsened notably in the last two years. Initial evaluations elsewhere suggested antrochoanal polyps, but MRI imaging at our clinic revealed a large expansile mass in the nasal cavity extending toward the anterior cranial fossa. The mass measured approximately 10 cm cranio-caudally and 6.4 cm transversely at the level of the anterior cranial fossa, demonstrating marked hyperintensity on T2-weighted MRI and facilitated diffusion on diffusion-weighted imaging. An endoscopic biopsy confirmed the diagnosis of myxoma. Despite the benign nature of the tumor, its locally invasive behavior and extension into the anterior skull base necessitated a comprehensive surgical approach. Results: The surgical procedure involved meticulous removal of the myxoma through a combination of middle meatus exploration and a posterior approach to access the anterior skull base. During the surgery, the tumor was successfully resected up to the dura mater, although an intraoperative cerebrospinal fluid (CSF) leak occurred due to defects in the anterior skull base. The defect was repaired using temporal fascia and muscle with a layered approach. Despite achieving a wide resection, complete gross total resection was not possible due to the extensive nature of the tumor and intraoperative complications. Postoperative management included monitoring for CSF leakage and addressing potential complications related to the extensive resection. Conclusions: This case underscores the importance of considering nasal myxoma in the differential diagnosis of nasal masses in adolescents, particularly when conventional diagnoses do not fully account for the clinical symptoms. Advanced imaging techniques like MRI are crucial for accurate diagnosis and surgical planning. Early diagnosis and intervention are vital for managing nasal myxomas due to their invasive nature and potential for significant complications. This case highlights the challenges in managing extensive nasal myxomas and the need for a multidisciplinary approach to ensure optimal surgical outcomes and long-term follow-up to monitor for recurrence and assess functional outcomes. Continued research is necessary to refine treatment strategies for these rare and complex tumors.

SURGICAL TREATMENT OF EPISTAXIS

Michal Sisák [1], Adam Kešner [1],
[1] Oddělení ORL a chirurgie hlavy a krku Nemocnice Rudolfa a Stefanie Benešov

Epistaxis is a potentially life-threatening condition. It is a very common condition with a high frequency in our ENT praxis and it requires urgent treatment. The prevalence of epistaxis in the general population is approximately 12%, but only 10% of the patients with epistaxis seek medical attention. The majority of patients treated in the ENT clinic profit from the conservative treatment of epistaxis, only approximately 1% of all patients reach surgical treatment during hospitalization. Our ENT department of the Rudolf and Stefania Hospital in Benešov treated 1621 cases of epistaxis from 1/1/2021 to 30/6/2024. Only 27 patients had to be treated during hospitalization, of which 10 were revised surgically - mainly coagulation of sphenopalatine artery. In the follow up 9 patients were without further surgical revision. Indications for surgical revision is based on many aspects and the condition of the patient, which is often life-threatening. The lecture presents the case report of the patient in whom surgical treatment was combined with interventional embolization. Both methods had their successes, but also undesirable complications, which in the postoperative period affected the patient's quality of life.

RHINOPHYMA- DIAGNOSIS AND TREATMENT OPTIONS

Karl Hoermann [1],
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Rhinophyma is the end stage of acne rosacea. There is no evidence-based study justification association with alcohol. Mainly Caucasian men at the age of 50 and above are affected. Rhinophyma can cause major psychosocial problems for the patients due to an extreme disfigurement of the nose and a functional impairment with nasal airway obstruction. Surgery remains the mainstay of treatment. Detailed histo-pathological analysis of the excised tissue is a must as rhinophyma can mask an underlying malignancy.

MODERN PRINCIPLES OF AESTHETIC RHINOPLASTY

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Abstrakt není k dispozici

SINUS LIFT- INDICATIONS ,TECHNIQUES AND COMPLICATIONS

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The maxillary sinus represents a common area of interest for dental implantologists and otorhinolaryngologists. The mass of residual bone in the lateral (subantral) region of the upper jaw is often insufficient. Thus, the insertion of implants may require bone augmentation, typically by the sinus lift method. The aim of the lecture is to summarize the indications of the procedure, techniques and possible complications.

SLEEP MEDICINE & VARIA

TREATMENT OPTIONS IN OBSTRUCTIVE SLEEP APNEA

Ctirad Bastl [1],
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Obstructive Sleep Apnea (OSA) is a prevalent and complex disorder characterized by repeated episodes of upper airway collapse during sleep, leading to significant health risks, including cardiovascular disease and metabolic disorders. This presentation provides a comprehensive overview of current and emerging treatment options for OSA, tailored to the needs of an expert medical audience. The gold standard treatment, Continuous Positive Airway Pressure (CPAP), remains the most effective intervention for reducing the Apnea-Hypopnea Index (AHI) and improving overall sleep quality. However, patient adherence to CPAP therapy remains a challenge, necessitating alternative treatment approaches. Mandibular Advancement Devices (MADs) and Hypoglossal Nerve Stimulation (HNS) offer promising alternatives, particularly for patients intolerant to CPAP. MADs are particularly effective in patients with mild to moderate OSA, providing a balance between efficacy and comfort, while HNS shows significant potential in reducing AHI in patients with specific anatomical patterns of airway collapse. Surgical interventions, including Uvulopalatopharyngoplasty (UPPP) and Maxillomandibular Advancement (MMA), are discussed as viable options for patients with anatomical contributors to OSA. MMA, in particular, is highlighted for its high success rates and long-term efficacy in severe OSA cases. Emerging pharmacological therapies targeting specific OSA phenotypes and endotypes are also explored, offering new hope for personalized treatment strategies. The presentation concludes by discussing the future directions of OSA treatment, including the integration of artificial intelligence and novel diagnostic tools like Drug-Induced Sleep Endoscopy (DISE) to enhance treatment precision and outcomes. This review emphasizes the importance of a multidisciplinary approach to OSA management, combining traditional therapies with innovative treatments to optimize patient outcomes.

NON-SURGICAL TREATMENT OPTIONS FOR OSA

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Obstructive sleep apnea is a complex disease with multifactorial causes, therefore the approach to its treatment must also be comprehensive. Reduction to a mere mechanistic idea of the causes and thus the therapy of the disease with a simple surgical procedure can be a big mistake and can harm the patient as a result. Yet this approach is still encountered. Non-surgical treatment options for OSA focus on alleviating symptoms and improving patients' quality of life. The so-called regimen measures are very often underestimated, although it is the first thing we should always start with and only then consider surgical treatment. Adjustments in diet, weight reduction, regular exercise, and avoiding alcohol and sedatives can significantly improve the condition of OSA patients. Sleep hygiene and positional therapy (e.g., sleeping on one's side) can also help reduce symptoms. However Continuous Positive Airway Pressure (CPAP) is the most common and effective treatment for OSA. Other possibilities are also oral appliances, upper airway muscle training and even some kind of pharmacotherapy. Non-surgical treatment options for OSA provide patients with effective alternatives to surgical interventions, reduce the risk of complications, and can be tailored to the individual needs and preferences of patients. Optimal treatment often requires a combination of different approaches and multidisciplinary collaboration among healthcare providers from various specialties.

EFFECT OF OBESITY, AGE AND GENDER ON PLASMA LEVELS OF SELECTED GLYCOPROTEIN BIOMARKERS AND MIRNA-499 IN PATIENTS WITH OBSTRUCTIVE SLEEP APNEA

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Introduction: The current diagnostic scheme for obstructive sleep apnea (OSA) uses polysomnography or limited polygraphy and requires specialized personnel and equipment. Glycoprotein biomarkers and microRNAs are one of the potential new screening methods. The aim of this study was to evaluate whether some biomarkers and microRNAs in patients with OSA may be influenced by factors such as gender, age and obesity level. Methods: A retrospective analytical study included 130 patients with moderate and severe OSA. The control group consisted of 81 healthy subjects. Serum levels of selected biomarkers and microRNAs were collected in both groups. The group of OSA patients was then stratified according to gender, obesity level and age, and the possible influence of these variables on biomarker levels was investigated. Results: Levels of all studied biomarkers - C-reactive protein (CRP), high-sensitivity troponin I (hsTnI) and pentraxin-3 (PTX-3) - and microRNA-499 were significantly higher in OSA patients compared to controls. In the OSA group, only hsTnI showed a statistically significant relationship with gender. CRP and hsTnI levels showed a significant relationship with obesity level. Age dependence was demonstrated for hsTnI. CRP, PTX-3 and microRNA-499 had no statistically significant association to age. Conclusion: Serum levels of pentraxin-3 and microRNA-499 in patients with moderate and severe obstructive sleep apnoea are independent of gender, obesity level and age. CRP was affected by the degree of obesity, and hsTnI was affected by all 3 variables. We consider these findings important for further research on biomarkers of OSA

SLEEP MEDICINE FROM THE CARDIOLOGIST´S POINT OF VIEW

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Abstrakt není k dispozici

TRANSORAL ROBOTIC SURGERY (TORS) IN OBSTRUCTIVE SLEEP APNEA, OUR FIRST PATIENTS AND RESULTS

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Background/Introduction: Obstructive sleep apnea (OSA) affects nearly 1 billion people worldwide. Surgery is variably effective and patients should be indicated very selectively. This study summarizes and presents our personal experience with TORS (not only) for OSA treatment, with the aim to provide information regarding its safety, efficacy, postoperative complications and its role in the Health system in Czech Republic. Methods: Our experiences with TORS surgery started in 2023 obtaining DaVinci Xi system. TORS is nowadays considered a common surgical minimally approach for Base of Tongue (BOT) reduction in cases of OSA due to a lingual tonsil obstruction. Furthermore, this procedure can be combined with other techniques, such as tonsillectomy, pharyngoplasty and many others in cases of a multilevel obstruction. Our patients have followed the standart indication protocol in OSA treatment (Endoscopy, PG, DISE). Pediatric patients were excluded from TORS program. Results: From 9/2023, 43 patients underwent transoral robotic surgery at our departement, 31 (72%) patients underwent surgery for oropharyngeal carcinoma, 9 (20%) for benign lesions of oropharynx, 3 (6%) for OSA. 3 patients underwent BOT reduction, one patient BOTr together with epiglotopalsty, in one case the multilevel surgery was performed (BOTr, UPPP). There was 68% decrease of AHI in average in the patients after TORS. No patient with OSA had postoperative bleeding. No readmission was experienced. Conclusion(s): TORS for OSA treatment is an effective and safe procedure for adequately selected patients. Considering other effective ways of surgery (upper airway stimulation), in the Czech Republic, TORS is still being in its golden era regarding the surgical treatment of retrolingual space.

SELF-ASSEMBLING HEAMOSTATIC POLYPEPTIDES IN OSA SURGERY

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Abstrakt není k dispozici

THE BINOCULAR VHIT IN HEALTH AND DISEASE: LOOKING BEYOND THE WELL-KNOWN

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Abstract Background: There is rising literature evidence on monocular vHIT directional bias. Our previous normative study on binocular video head impulse test (bvHIT) found that recording both eyes simultaneously is preferable over one eye (monocular) recording, because of minimizing the monocular directional bias. Purpose: To investigate whether there are differences in VOR gains between adducting (AD) and abducting (AB) eye movements in patients with a unilateral vestibular deficit (UVL) and to define the most precise VOR measure in those. Setting: Tertiary referral center. Methods: We enrolled 60 UVL patients and 44 healthy adult participants in a cross-sectional, prospective study using a repeated-measures design to assess bVHIT test-retest reliability in UVL. An EyeSeeCam Sci 2 device was used to record bvHIT during impulsive testing in the horizontal plane. Results: In UVL patients, the monocular assessment with the camera placed over the eye ipsilateral to the deficit (lesion side recorded during AD, healthy side in AB) resulted in mean gains of 0,52 (SD 0.06) ipsilesional and 0,82 (0.06) healthy side, respectively, with an asymmetry of 26%. With the camera placed contralesionally (deficit side in AB, healthy side in AD), the mean gains were 0,43 (0.05) and 0,92 (0.06), with an asymmetry of 41%. Binocular assessment showed AD- and AB-related asymmetries of 32% and 34%, respectively. Conclusions: Our study provides results from UVL patients reflecting the conjugacy of eye movement responses to horizontal bvHIT. In a previous study, we found larger VOR gains in AD compared to AB. We found a similar pattern in UVL patients. A monocular analysis showed a reduced asymmetry for the ipsilesional camera placing and an increased asymmetry for the contralesional camera. Therefore, ipsilesional camera placement can increase false negatives while contralesional camera placement can increase false positives. To reduce monocular vHIT directional bias and to gain the most accurate asymmetry measurement, we recommend the use of duction-related (AD or AB) VOR gains recorded from both eyes simultaneously during bvHIT.

EVERYTHING YOU ALWAYS WANTED TO KNOW ABOUT THE MICROBIOME - UPDATE 2024

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History of microbiome research, global dimensions of the super epidemic, the human microbiome project, the microbiome in the course of life, the gut microbiome and its interactions, QM of the laboratories involved, microbiome and cancer, the gut-brain axis, the microbiome and the immune system, microbiome in interaction with antibiotics and xenobiotics, antibiotics - do's and dont's, news on faecal microbiome transfer, outlook: renewing the microbiome

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TIME TO STOP BLAMING REFLUX ALL THE TIME

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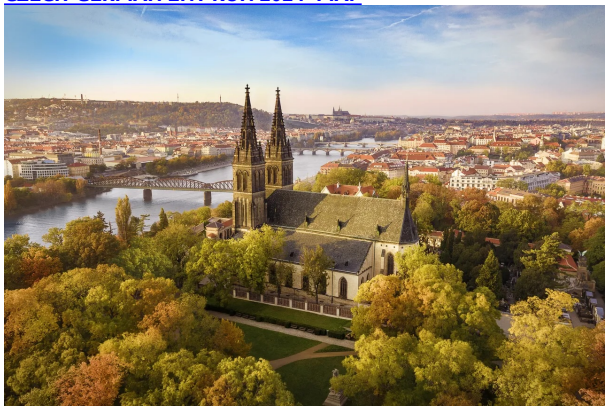
Hoarsness , cough, throat clearing, lump in a throat etc. are the common symptoms bringing the patients to the ENT specialist. Many of them leaving with the diagnose of laryngopharyngeal reflux (LPR) and given empirical treatment with PPI (Proton Pump Inhibitor) medication. Is the reflux always the cause of the symptoms? Extensive research in the field of LPR was done in recent years and more reliable diagnostic tools are available in the practice. On the top of that The Dubai Definiton and Diagnostic Criteria of Laryngopharyngeal Reflux: The IFOS Consensus was published earlier this year. Several case reports are presented, where the initial diagnose of LPR was misleading. After detailed diagnostic workout including 24h oropharyngeal pH testing, surprising findings were observed.

LARYNX DIAGNOSTICS FOR VOCAL FOLD PARALYSIS (INSTRUCTIONAL COURSE II.)

CZECH-GERMAN ENT RUN 2024 II.

CZECH-GERMAN ENT RUN 2024- MAP



- 3,1 km / 6,2 km

ACUTE VERTIGO (INSTRUCTIONAL COURSE III.)

THYROID GLAND DISORDERS I. (ROUND TABLE)

THYROID GLAND DISORDERS II.

CORE NEEDLE BIOPSY OF THYROID GLAND

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Introduction Ultrasound guided fine needle aspiration (FNA) is the diagnostic tool used routinely for thyroid gland nodules since the 1980s. In about 10-20 % of cases the cytology result is inconclusive. Lately core-needle biopsy (CNB) is becoming more and more popular to diagnose head and neck tumors. From previous studies we can conclude that CNB of thyroid gland is a safe, mini-invasive biopsy method. Methods This is a retrospective study of 5 case reports and literature review of thyroid gland CNB. Results At the Department of otorhinolaryngology in General university hospital in Prague we provide US guided CNB in head and neck since 2018. In the 6-year period (2018-2023) we performed 5 CNB of the thyroid gland (4 females and 1 male). 4 patients were referred to our department by endocrinologist and 1 patient has been referred by hematooncologist. There were no severe complications after the biopsy, one patient complained of oedema in the site of the biopsy. 3 of the 5 biopsies found malignant tumor, 2 biopsies were benign. One of the benign biopsies was false negative. Conclusion The latest data comparisons show that the histology results of thyroid gland CNB are not significantly better than FNA cytology examination. Consequently, CNB is not usually the primary diagnostic tool for thyroid gland nodules. However, as is also demonstrated in our series of cases, CNB proved to be significantly better than FNA to diagnose low differentiated tumors such as lymphomas and anaplastic carcinoma. In conclusion CNB of thyroid gland is a useful auxiliary diagnostic method for some thyroidal tumors.

ANAPLASTIC CARCINOMA

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Abstrakt není k dispozici

RETROSTERNAL EXTENDING GOITERS AND POSSIBILITIES OF THEIR SURGICAL REMOVAL, A SINGLE CENTRE EXPERIENCE

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Introduction: A retrosternal or substernal goiter is a thyroid gland tissue extending into the chest cavity. They can be asymptomatic or symptomatic. A retrosternal goiter may involve one or both lobes of the thyroid gland and may cause deviation or compression of the trachea, possibly the esophagus or vascular structures. The treatment of a symptomatic substernal goiter is a surgical removal, thyroidectomy. This can be done from the cervical approach, but often this approach is not sufficient for the size of the thyroid gland and it is necessary to use a thoracic approach for definitive removal of the entire goiter. The aim of this presentation is to summarize experience and presentation of thyroidectomy options from various surgical approaches at our workplace. Methodology: In this presentation, the annual results of our workplace will be presented, as well as the individual options for operative approaches that we use for thyroidectomy at 3rd surgical clinics of the 1st Faculty of Medicine of the UK and the Motol General Hospital from January 1, 2019 to June 1, 2024; at the same time, individual indications and complications of such approaches will be also presented. Results: The number of retrosternal goiters operated with other than a cervical approach is not large. However, you can see in my presentation that it is sometimes a great advantage to use a thoracic approach in this issue. There are certain groups of patients by whom the thoracic approach cannot be used, and I mention that here. Conclusion: The use of a thoracic approach in substernal goiter operation is often a great advantage and necessity. This presantation will offer you a detailed view of our practical experience with this approach.

PRIMARY HYPERPARATHYROIDISM: A RETROSPECTIVE ANALYSIS OF THORACIC APPROACHES

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Background: Primary hyperparathyroidism is one of the most common endocrine disorders. The standard treatment is surgical removal via a cervical incision. In some cases abnormal parathyroid tissue may be present in the mediastinum and sometimes is necessary thoracic approach. Methods: We retrospective analyzed two groups of patients: 923 cases of primary hyperparathyroidism, operating between years 2008-2013, and 1293 cases operating between years 2018-2023. Surgical thoracic approaches were noted. Results: A total of 2216 cases of primary hyperparathyroidism were studied. The 49 cases ectopic parathyroid adenoma were deep in the mediastinum. The thoracic approaches in the first group (2008-2013) were sternotomy in 22 cases. The thoracic approaches in the second group (2018-2023) were sternotomy (4 cases), video-assisted thoracoscopy (21 cases) and robotic-assisted thoracoscopy (2 cases). Conclusion: The miniinvasive thoracic approaches become more popular.

IDENTIFICATION OF HYPERFUNCTIONING PARATHYROID GLANDS - USE OF INTRAOPERATIVE AUTOFLUORESCENCE/ICG ANGIOGRAPHY

Katarína Fedorová [1], Karol Zeleník [2], Pavel Komínek [3],
[1] Katrína Fedorová, MD
[2] Karol Zeleník
[3] Pavel Komínek

Introduction Identification of a hyperfunctioning parathyroid gland (PG) is an important but challenging aspect of the treatment of hyperparathyroidism. In recent years, autofluorescence and ICG (indocyanin green) angiography appear to be promising methods to identify PT during surgery. The purpose of this study was to evaluate the efficiency of intraoperative autofluorescence and ICG angiography and compare their reliability with nuclear medicine methods (99mTc-MIBI scintigraphy, PET/CT). Materials and methods Before parathyroidectomy (PTE), sonography, scintigraphy, and, in cases of a negative or inconclusive result, PET or CT were performed. Total calcium and parathyroid hormone levels were measured. During the surgery, autofluorescence was evaluated, and then, after the intravenous application of 5 mg of indocyanine green, there was also fluorescence. A positive result of auto-fluorescence was indicated by a bright green coloration of the PG. In cases of radiation-guided PTE, the activity of 99 mTc-MIBI was simultaneously measured. Results The study included 29 patients with primary hyperparathyroidism, with a mean age of 61 years. Seventeen patients underwent scintigraphy and then radiation-guided surgery; the remaining 12 patients underwent PET/CT imaging. Auto-fluorescence was evaluated in all 29 patients; a positive result, a bright green coloration of the PG, was recorded in 10 patients and in 28 cases by ICG angiography. The positive surgical outcome, finding a hyperfunctioning PG and decrease in laboratory parameters, was recorded in a total of 27 patients (93.1%), in radiation-guided parathyreoidectomy in 16 cases (94%), and in surgery without a gamma probe with the use of autofluorescence/ICG angiography in 11 cases (91.67%). No significant difference was noted between the results of surgery with and without navigation. The application of ICG and fluorescence evaluation positively contributed to the correct identification of PG. Conclusion Intraoprative identification of a hyperfunctioning PG depends mostly on surgeons skills and primarily on preoperative imaging. ICG angiography is a promising method to identify PG that achieves similar outcomes compared to radiation-guided parathyroidectomy. It is therefore important, especially in cases where the gamma probe cannot be used (PG without 99mTc-MIBI accumulation and a negative/inconclusive result of scintigraphy or PET/CT). Supported by institutional grant of University Hospital Ostrava RVO-FNOs/2023-07

THE INFLUENCE OF NEUROMONITORING AND INTERNATIONAL GUIDELINES ON THE INCIDENCE OF BILATERAL VOCAL FOLD PARALYSIS (BVFP) DUE TO THYROID SURGERY AS SEEN IN MONOCENTRIC DATA IN GERA

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Introduction: New neuromonitoring techniques for the integrity of the recurrent laryngeal nerve (RLN) in thyroid surgery allow a continuous monitoring and have been shown to lower the incidence of permanent RLN paralysis further in a recent European study. In 2018 new international guidelines have been implemented which forbid to continue a benign thyroid surgery in case of a permanent loss of signal on the first operated side. We wanted to see whether both measures have a noticeable influence in our own patient cohort. Method: All cases of bVFP who were seen in our neurolaryngologic clinic in Gera since 2008 were collected retro- and prospectively in a multicentric clinical registry (ethics approval obtained). In total 112 cases were seen. Results: The incidence of bVFP due to thyroid surgery in our cohort dropped from 65,1% (2008 to 2017, 28 of 43 cases) to 5,9% (2018 to 2023, 3 of 17 cases). For primary thyroid surgery is was only one case, which equals a reduction of 91%. However, these data do not necessarily reflect the true incidence of bVFP, as referral behavior to us has also changed. Conclusions: The effects of the implementation of new monitoring techniques and strict thyroid surgery guidelines are clearly visible in our local patient cohort and underline the value of both measures.

VOICE FIELD AS A TOOL TO DIAGNOSE PATIENTS WITH POSTOPERATIVE PARESIS OF SUPERIOR LARYNGEAL NERVE AFTER TOTAL THYROIDECTOMY

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In our department we followed patients undergoing total thyroidectomy in years 2022 and 2023 and performed a prospective study. Our main goal was to diagnose patients with postoperative paresis of the superior laryngeal nerve in order to provide them early phoniatric care to maintain their quality of life. As a tool to determine the paresis we used a non-invasive, easy to perform voice field. Each patient's voice performance was stored preoperatively together with video endoscopy of the larynx, so that the same examination could be performed one week after surgery for data comparison. The threshold value for determining paresis of the superior laryngeal nerve was a loss of at least 100 Hz in the higher tones of the patients' voice, repeatedly. A total of 52 patients were included in the study, from which 8 patients were later removed due to the following conditions: recurrent laryngeal nerve paresis, unrelated death, vocal fold polyps, noncompliance. 44 patients had an evaluable postoperative voice field and 2-3 postoperative controls. In 2022, we diagnosed 1 patient with NLS paresis from 23 operations (risk = 4.35%), in 2023 it was 2 patients from 21 operations (risk = 9.5%). The common risk of paresis is then 6.8%. No such study has been conducted at another site, so it makes it incomparable. In the literature, we can find that the risk of postoperative paresis ranges from 1 to 14%. In conclusion, we find the voice field as a tool for the diagnosis of NLS paresis to be sufficient, easy to perform and non-invasive. It is worth noting that the patients were not occupational voice users. The gold standard in the objective diagnosis of NLS paresis is laryngeal electromyography. However, introducing it into regular practice would be technically and personnel very demanding, and even reading the results is very dependent on the interpreter. In order to establish the vocal field as a routine tool, a study comparing the vocal field and laryngeal EMG would be necessary.

ONCOLOGY

THE SUBMENTAL ISLAND FLAP FOR RECONSTRUCTING DEFECTS IN THE FLOOR OF THE MOUTH AND IN THE PAROTID REGION

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The submental island flap is a relatively new reconstruction technique for covering defects after removal of head and neck tumors. The flap, which is pedicled on the submental artery, has only a limited range, but can be used for a number of different defects due to the favorable location of the donor region. The advantage of the flap is its low donor morbidity and its good color match with the facial skin. Since 2018, a total of 10 patients have been treated with a submental island flap. In a single case, partial necrosis of the epidermis of the flap was seen after venous congestion. Through early intervention, the infiltration of heparin into the flap and the treatment with split-thickness skin, a favorable cosmetic result was achieved in this case, as in the other nine cases. No metastases were transplanted in the flap pedicle. The submental island flap is safe to harvest, has a safe blood supply and is relatively versatile for reconstruction in the head and neck area. The authors believe it is particularly suitable for covering large defects in the parotid region. The presentation will demonstrate the harvesting technique, decision criteria for selecting the reconstruction, possible problems and selected cases. The low harvest morbidity, the quick and easy preparation and the relatively short operation time make this reconstruction a good alternative, especially for older patients with comorbidities.

RISK FACTORS FOR POSTOPERATIVE COMPLICATIONS AFTER RECONSTRUCTION OF HEAD AND NECK DEFECTS WITH FREE AND PEDICLED FLAPS

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Abstrakt není k dispozici

MONITORING BLOOD LEVELS OF CELL-FREE DNA IN PATIENTS WITH HPV POSITIVE OROPHARYNGEAL CARCINOMA: INITIAL RESULTS

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Background/Introduction Follow up of patients with oropharyngeal squamous cell carcinoma (OSCC) mainly relies on physical examination and imaging methods. Novel approaches are developed to detect early stages of tumor recurrence, as number of patients with HPV positive OSCC is increasing. Results from other studies indicate that monitoring blood levels of cell-free DNA (cfDNA) could be a promising method in follow up of these patients. Methods This prospective study is ongoing from 2023 in Thomayer University Hospital. Blood samples are collected from patients with histologically confirmed HPV positive OSCC. Blood samples from patients who undergo surgery are taken one day before operation, then one day, one week and four weeks after operation and after that every three months until two years of monitoring. Patients who undergo radiotherapy are drawn every two weeks until the end of radiotherapy and after that every three months until two years of monitoring. Both groups will be then sampled every six months until five years from start of the therapy. Detection of cfDNA is made using ddPCR in Biocev laboratories. Results The first patient who underwent combined therapy (surgery and postoperative radiotherapy) had an input value of cfDNA 16735 ng/mL, the other two patients who underwent only radical radiotherapy had input values of 600 ng/mL and 1470 ng/mL respectively. The first day after surgery and three weeks after the end of radiotherapy were cfDNA levels undetectable. Conclusion(s) Our results indicate that blood levels of cfDNA are strongly related to the mass of the tumor, so we assume that tumor recurrence would be followed by sudden increase in cfDNA levels. However, we have to wait for the results from the remaining part of our study. Supported by MH CZ – DRO (Thomayer University Hospital -TUH, 00064190)

MALIGNANT TUMOURS OF THE LARYNX AND HYPOPHARYNX - A 10-YEAR STUDY

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Aim The aim of the study was the epidemiological analysis of malignant neoplasms of the hypopharynx and larynx in a 10-year cohort of the ENT clinic in Pilsen and identification of trends. Material and methods 456 patients with laryngeal or hypopharyngeal malignancy were included. The parameters monitored in this retrospective study were histology, sex, age, localization, TNM classification, treatment and presence of duplicity. Results The study population consisted of 10.7% women (n=49) and 89.3% men (n=407). The mean age was 64.5 years. Squamous cell carcinoma was the most common malignancy and occurred in 97.6% (n=445), other malignancies were diagnosed in 2.4% (n=11). TNM classification of squamous cell carcinoma included T1 range in 32.8% (n=146), T2 in 20.9% (n=93), T3 in 28.8% (n=128), T4 in 17.5% of patients (n=78). Locoregional metastatic process was diagnosed in 43.8% (n=195), 55.5% had N0 stadium (n=247), 3 patients had unknown Nx extent (0.7%). Distant metastasis were present in 10.6% of patients (n=47), 87.8% had no distant metastases (n=391) and 1.6% were undetermined (n=7). Surgical therapy was used in 52.6% of cases (n=234), in 18.2% in combination with radiotherapy (n=81) and in 7.6% with chemoradiotherapy (n=34). In 40.4% of patients, oncological therapy was the primary therapy (n=180). 7% of patients (n=31) had palliative treatment, refused treatment or died before treatment. Multiplicity of malignancies was found in 41 patients (9.0%). Conclusions The dominant malignancy in the study area is still squamous cell carcinoma. There is a trend towards the use of hybrid imaging methods in diagnostics and a clear shift towards primary oncological treatment in therapeutic trends. A concerning fact is that 18% of patients had multiplicity or distant metastases at the time of diagnosis.

EARLY-STAGE LARYNGEAL CARCINOMA TREATED IN THE ONCOLOGY CENTRE OF SAINT ANNE'S UNIVERSITY HOSPITAL AND MASARYK MEMORIAL CANCER INSTITUTE IN BRNO IN YEARS 2016-2018

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Introduction Squamous cell carcinoma of the larynx is a malignant tumour arising from the squamous epithelium of the larynx and is the 23rd most common malignancy. In the Czech Republic, laryngeal carcinoma was diagnosed in 518 patients in 2016, 533 patients in 2017, and 452 patients in 2018. Methods In this retrospective analysis, we studied patients with early-stage glottic laryngeal carcinoma (Tis-T2N0M0), thus patients in clinical stage 0, 1 and 2. A total of 44 patients treated between 2016 and 2018 in the Oncology Centre of St. Anne's University Hospital and Masaryk Memorial Cancer Institute in Brno with this extent of involvement were included. The study compared the outcomes of first-line oncological treatment, including surgical and non-surgical modalities, recurrence timing, disease-free interval, and five-year survival rates. Results Out of these 44 patients, 22 were treated surgically in Saint Anne's University Hospital. No recurrences were observed among these patients, and 7 patients died from causes other than the cancer. Treatment for 22 patients was provided in the Masaryk Memorial Cancer Institute in Brno. Of these 22 patients, 20 underwent curative radiotherapy with a total dose of 70 Gy, while 2 patients received concurrent therapy, with one patient completing 2 cycles and the other 3 cycles of cisplatin. Among 8 patients who received primary non-surgical treatment, recurrence was confirmed and leading to total laryngectomy for each. Of these patients, 7 died, with one death attributed to the underlying condition – verrucous type carcinoma. Conclusion Surgical treatment of early-stage laryngeal carcinoma demonstrates high efficacy with no recurrences in our patient cohort, with mortality due to causes other than the cancer itself. In contrast, patients receiving non-surgical treatment have a higher risk of recurrence, leading to more subsequent surgeries, including total laryngectomy. Specific challenges in treatment are associated particularly with the verrucous type of carcinoma.

SENTINEL LYMPHNODE IN MELANOMA OF HEAD AND NECK AT ENT CLINIC PARDUBICE

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The incidence of malignant melanoma has been gradually increasing in recent years. There are worldwide recommendations for treatment procedures for malignant melanoma, an integral part of which is the collection and examination of the sentinel lymphnode. At the ENT clinic in Pardubice Hospital, sentinel lymphnodes in the head and neck area have been evaluated since 2016. The authors present a group of 85 patients with cutaneous malignant melanoma of the head and neck treated from 2016 to 2023. SLNB examination was performed in 33 patients (38%), more than one SLN was identified in half of the cases, positive SLNB was detected in 4 cases (12%). Recurrence/generalization of malignant melanoma occurred in 8 of 33 patients who underwent sentinel node examination (24%), in 1 of 4 patients (25%) who refused sentinel node examination, and in 11 of 48 patients without an indicated SLNB (23%). The survival time due to the relatively short period of examination has not been monitored in the group, the results are also partially affected by the smaller number of patients. SLNB is one of the most important prognostic factors in cutaneous malignant melanoma, including head and neck involvement. The head and neck area can be considered specific in the issue of the sentinel node, with different characteristics than in other parts of the body, and therefore there is some controversy in the literature.

PARAGANGLIOMA VS. SCHWANNOMA

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Abstrakt není k dispozici

E-POSTERS

RETROSPECTIVE ANALYSIS OF DEEP NECK SPACE INFECTIONS AT FNUSA BRNO ENT-HNS CLINIC (2018-2023)

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Introduction: This retrospective study analyzes the clinical data of patients diagnosed with deep neck space infections (DNSI) at the ENT-HNS Clinic of FNUSA Brno over a five-year period from 2018 to 2023. The objective was to evaluate the epidemiology, clinical presentation, diagnostic methods, treatment approaches, and outcomes associated with DNSI. Methods: Data from patient records, including demographic information, etiology, imaging findings, microbiological results, treatment modalities, and complications, were systematically reviewed and analyzed. The results were contrasted with the most recent studies. Results: Key findings indicate a notable prevalence of DNSI in middle-aged adults, with odontogenic and tonsilogenic sources being the most frequent causes. Advanced imaging techniques, particularly CT scans, played a crucial role in diagnosis. A combination of surgical drainage and antibiotic therapy was the predominant treatment strategy. Mediastinitis was identified as the most feared complication, with a lethality rate of approximately 33%. The overall lethality across all patient groups was 6%. Risk factors such as drug substance abuse and immunosuppression were identified as significant contributors to the development of severe complications Conclusion: The study underscores the importance of prompt diagnosis and multidisciplinary management in improving patient outcomes for DNSI. Further research is suggested to optimize treatment protocols and reduce the incidence of severe complications associated with these infections.

MULTIFOCAL FACIAL VASCULAR MALFORMATION REQUIRING SURGICAL TREATMENT - CASE STUDY.

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Introduction Vascular anomalies are a heterogenous group of congenital blood vessel disorders. They can be subcategorized into vascular tumors and malformations. Tumors grow by cellular hyperplasia rapidly during the first six months of life, involute with time, beta blocker therapy can be effective. Malformations represent a localized defect in vascular morphogenesis. They are present at birth, slow growing, infiltrative, and destructive. Almost all vascular malformations eventually require intervention. Case study Our patient was a girl with a multifocal vascular anomaly of the soft tissues in the face (orbit, root of the nose, cheek). Maximized propranolol therapy was not much effective. In the subsequent years, the condition progressed; therefore, it was decided to perform an angiography where a capillary vascularized expansion of the right cheek supplied from one branch of the maxillary artery surgery was detected. The malformation in the face was extirpated after previous sclerotization of the supply vessel at the age of nine. Afterwards a lateral orbitotomy with radical resection of the orbital portion of the malformation was performed. Three months after the procedure, a progression of the vascular malformation in the orbital area occurred. Digital subtraction angiography is now planned with a subsequent surgical resolution of the remaining part of the malformation. Results Postoperatively, a relatively favorable cosmetic effect was achieved, and visual function improved. Now the finding in the orbit has re-progressed. Conclusions Treatment of this type of vascular malformation consists of embolization, surgical extirpation, or a combination of these modalities. Treatment and timing are often individualized to the patient and the extent of disease. In the presented case, our main concern was the bulbar dysfunction and the unfavorable cosmetic appearance of the right cheek. The treatment led to a substantial alleviation of the difficulties.

CORRECTION OF FACIAL ASYMMETRY USING THREAD LIFTING IN PATIENTS WITH FACIAL NERVE PALSY - A SAFE ALTERNATIVE TO SUSPENSIVE OPERATIONS

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Introduction: Facial nerve paresis leads to dysfunction of the mimetic muscles, which is a limiting problem in daily life not only functionally but also affecting patients' self-esteem and social functioning. Many patients, after previous reinnervation and corrective surgical procedures, do not wish to undergo further procedures involving general anesthesia. As an alternative to static surgical corrections, we are now considering thread lifting. Methodology: We evaluated the results of corrective procedures using thread lifting carried out between January 2023 and July 2024 on a cohort of 23 patients. Photodocumentation and objective assessment were performed using 3D computer analysis allowing evaluation of facial symmetry. Results: An individual application plan was established for each patient. All procedures were performed under local anesthesia, which patients tolerated without difficulties, with an average duration of 45 minutes, and no hospitalization was required. No complications were recorded as a result of the procedures performed. In all cases, successful correction of facial asymmetry was achieved. Conclusion: Optimal surgical treatment of facial muscle palsy requires a systematic approach, individual planning, and usually involves several stages. No single procedure can comprehensively address all aspects, and corrective procedures are essential for achieving maximum subjective satisfaction and quality of life for patients. The proposed and tested method utilizing thread lifting proved to be safe with minimal burden for patients. The type of material used allows the procedure to be combined both with reinnervation procedures and as a definitive approach. To evaluate the benefits, we consider it necessary to assess long-term results on a larger cohort. Support: This work was supported by the research projects of Charles University GAUK 43252 Evaluation of Facial Functions of the Facial Nerve Using 3D-PC Visualization through the Kinect Method and the Cooperatio Program, research area SURG.

RADIOFREQUENCY ABLATION OF THYROID NODULES - FIRST EXPERIENCE IN THE CZECH REPUBLIC

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Introduction: Ultrasound-guided radiofrequency ablation (RFA) of the thyroid is a minimally invasive treatment method that can be an alternative to surgery for patients with thyroid nodules. The most common indications for performing RFA are benign non-functional nodules (both cystic and non-cystic), goiter (confirmed as benign), and even micropapillary carcinoma. According to meta-analyses and systematic reviews, RFA has demonstrated good efficacy and safety. RFA works based on the thermal effects of high-frequency electric current on tissue. Methods: We included all RFA we perfomed at our department fdrom Autumn 2023. Results: : Since the fall of 2023, we have performed a total of 5 procedures on 4 female patients, with one being a re-RFA. The treatment was always indicated for cystic swelling of benign nature. The procedure was performed under ultrasound guidance. Post-procedure, a laryngoscopy was conducted to exclude any laryngeal pathology (especially vocal cord paresis), and on the first day after the procedure, a follow-up neck ultrasound was performed. Postoperatively, one patient developed a subcutaneous hematoma, but no serious complications were observed. Follow-up care is provided in endocrinology. Conclusion: Radiofrequency ablation represents one of the treatment options for thyroid swelling. According to meta-analyses, RFA is effective and safe in treating benign nodules. In our case, we did not observe any serious complications and noted a favorable effect on the swelling.

EPIDEMIOLOGY OF NASOPHARYNGEAL NEOPLASIAS - A RETROSPECTIVE STUDY OF THE ENT CLINIC IN PILSEN OVER 10 YEARS (PERIOD 2012 - 2022)

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Introduction: nasopharyngeal tumors have complex and unique etiopathogenesis, typical histological findings and biological behavior. Benign tumors are extremely rare, less than 1% of tumors in the head and neck region. Malignant tumours of the nasopharynx account for 3% of ENT malignancies, most commonly carcinoma, followed by lymphomas and very rarely other malignancies. Material and Methods: 48 patients entered the retrospective analytical study, 39 of whom met the inclusion criteria, of whom 28 were men (71.8%) and 11 were women (28.2%). Statistical analysis of the data was subsequently performed in this cohort. Results: 30 patients (76.9%) with nasopharyngeal carcinoma (NPC) were included. Other tumors were Hodgkin's lymphoma in 1 man (3.6%), non-Hodgkin's lymphoma in 6 patients (15.4%). 1 rhabdomyosarcoma and 1 myoepithelial carcinoma were diagnosed among other malignancies. Neck swelling was the most common symptom in a total of 26 patients (66.7%), of whom 21 were male (75% of males) and 5 were female (45.5%). Nasal obstruction was another common symptom in 11 patients (28.2%). Headache was reported by 8 patients (20.5%), nasal secretion was present in 7 patients (17.9%), otitis media secretorica and weight loss were identical in 6 patients (15.4%). Patients with NPC had an overall survival of 5 or more years in 6 cases (30%); 3 females (75%), 3 males (18.8%). The situation was different for lymphomas, with 4 patients surviving 5 or more years overall; 2 females (66.7%), 2 males (100%). The patient with rhabdomyosarcoma survived over 5 years, as did the patient with myoepithelial carcinoma. Conclusion: Our results are consistent with published evidence, especially in terms of geographic prevalence influenced by race, genetic factors, and patient lifestyle. In our cohort of patients, nasopharyngeal carcinoma occurred in 76.9% of cases (5 times more in males than females) with a mean age over 50 years. Lymphomas and other tumors accounted for less than a quarter of the cohort.

TUMOR IN THE JUGULUM - CASE REPORT

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Introduction: Thymoma might be known by its name as a benign tumor, but this is not entirely the case. According to the WHO classification, there are 5 subtypes of thymoma, namely A(best prognosis), AB, B1, B2, B3(most severe subtype). Case report: A case report of a 32-year-old female patient admitted to the Department of Otorhinolaryngology and Head and Neck Surgery in 2023 is presented. The patient was admitted electively on the recommendation of an endocrinologist for removal of a tumor in the jugulum. The first consideration according to imaging was a lipofibroma, hamartoma or ectopic thyroid. Surgical procedure in which removal of this tumor in the jugulum without complications, postoperative course favorable. Surprisingly, however, the histology result showed thymoma AB, a lesion with malignant potential, and thus the patient was assigned the diagnosis C 38.1. Classification of thymoma AB pT1a cN0M0. Subsequently, the patient was discussed within the oncology board, when the subsequent radiotherapy was arranged. Initiation of radiotherapy was less than 2 months after surgery, with a total dose of 54 Gy and a total of 27 fractions over 6 weeks. The patient was followed up regularly during and after radiotherapy at the Oncology Clinic. No signs of local recurrence or dissemination on follow-up imaging, patient in complete remission of disease at this time. Conclusion: Despite its name, thymoma is considered a disease with malignant potential. Therefore, its therapy is ideally approached by surgical staging followed by oncological therapy (radiotherapy, chemotherapy, hormone therapy, or immunotherapy). It is advisable to think of this diagnosis if one encounters a patient with a swelling in the jugulum that is not clearly related to the thyroid gland. Thymoma is more common in patients with autoimmune diseases (e.g. mysthenia gravis, Good syndrome).

DYNAMICS OF CARDIOSPECIFIC MARKERS DUE TO VAGUS NERVE STIMULATION DURING INTRAOPERATIVE NEUROMONITORING

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Introduction: Vagal nerve stimulation (VNS) is performed during the head and neck surgeries to prevent reccurent laryngeal nerve injury. It has also emerged as a potential therapeutic approach for various cardiovascular disorders. Understanding its impact on cardiac-specific markers such as troponin I, copeptin, and NT-pro BNP is crucial for assessing its efficacy and safety in clinical settings. Methods: We performed a prospective study in patients, which were indicated for hemithyroidectomy or total thyroidectomy with no severe cardiovascular comorbidities. The group included 75 patients undergoing surgery using continuous or intermittent neuromonitoring. Venous blood samples were obtained preoperatively, within 3 hours after surgery (postoperatively) and 24 ± 12 hours after surgery (first day after surgery). Serum levels from collected blood were measured using a commercially available enzyme-linked immunosorbent assay (ELISA) kit. Results: We present the dynamics of cardiospecific markers Troponin I, Copeptin and N-terminal prohormone of brain natriuretic peptide (NT-pro BNP) after vagal nerve stimulation during intraoperative neuromonitoring in a group of patients undergoing thyroid surgery. The results are related to the extent of the procedure (hemithyroidectomy, total thyroidectomy) and type of neuromonitoring (continuous or intermittent) at the Otorhinolaryngological Clinic of the 3rd Faculty of Medicine of Charles University and University Hospital Kralovske Vinohrady. Conclusion: Intraoperative neuromonitoring of the recurrent laryngeal nerve and recently the vagus nerve is one of the modern methods used regularly in thyroid surgery. Impact on autonomic nervous system is mentioned as a main protentional risk during the vagal nerve stimulation. The aim of our study was to demonstrate the safety of intraoperative neuromonitoring and indicate potential dynamics of specific cardiac markers during vagal nerve stimulation. The work was supported by research projects of Charles University: GA UK No. 260623, and COOPERATIO 43 SURG.

NORMATIVE DATA OF HEALTHY POPULATION IN PILOT TESTING OF INTRANASAL TRIGEMINAL NERVE FUNCTION

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Introduction: The trigeminal nerve is also responsible for nasal innervation via chemoreceptors. The intranasal trigeminal system mediates the perception of nasal airflow and sensations such as burning, warming, stinging, cooling through special receptors known as transient receptor potential (TRP) channels. Some trigeminal stimuli (e.g. menthol) lead to a subjective improvement in nasal patency. Dysfunction of the trigeminal nerve has been noted in patients with loss of smell and in some nasal pathologies (e.g. empty nose syndrome, chronic rhinosinusitis with/without polyps, allergic rhinitis, septal deviation etc.). Objective: To create a simple and reliable test to examine the intranasal function of the trigeminal nerve in the nasal cavity. Methods: Healthy participants with normal nasal patency were included. For subjective perception of nasal patency we used VAS score for each side separately. Then examination was performed with 10 markers, 8 of them with trigeminal stimuli such as menthol, acetic acid, cloves etc. We included also one olfactory stimulus (vanilla) and neutral (water). Patients first applied markers to both nostrils and to each side separately. Participants then described the sensations (cooling, warming, burning, stinging) and pleasure of the given smell. Results: 24 participants were included (5 men, 19 women, age between 20-68 years). The mean value of VAS for right side was 8,58 out of 10 and for left side 8,96 out of 10. Eucalyptus and menthol was evaluated as cooling in 87,5 % of participants, acetic acid (dilution 50 %) as stinging (79,2 %); formic acid as stinging (87,5 %), citronella as cooling (54,2 %), acetic acid (dilution 75 %) as stinging (91,7%), cloves as warm (50 %), and camphor as cooling (70,8 %). The most pleasant was vanilla and the least pleasant was formic acid. The examination lasted approximately 20 minutes. No complications were noted during the examination. Conclusion: Examination of the intranasal function of the trigeminal nerve is not commonly used in ENT practice despite the fact, that there are several tests to examine the intranasal function of the trigeminal nerve. We expect its use in evaluation of nasal patency in patients with nasal pathologies.

MULTIFREQUENCY TESTING OF PATIENTS AFTER ACUTE ISOLATED VESTIBULAR DEFICIT

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Introduction: Acute unilateral vestibulopathy (AUVP) is defined as an acute peripheral vestibular syndrome without evidence of central neurological or audiological symptoms. Currently, there is no uniform instrumental testing protocol for the diagnosis and follow-up of patients with AUVP. Vestibular tests provide information in the different frequency bands of the vestibuloocular reflex (VOR); therefore, the aim of our study is to evaluate the contribution of multifrequency VOR testing in the evaluation of patients with AUVP. Methods: 40 patients (15 females and 25 males) with a diagnosis of AUVP were prospectively examined. Multifrequency testing included spontaneous nystagmus with visual fixation cancellation (SPN), Head Shaking Test (HST), bithermal air caloric test and video Head Impulse Test (vHIT). The first examination was performed within one week of AUVP, follow-up examinations were performed 3 and 6 months apart. At the third examination, the Dizziness handicap inventory (DHI) questionnaire was completed. Results: The rate of the slow component of spontaneous and induced nystagmus during HST and the values of unilateral weakness (UW) during caloric testing decreased during follow-up with a statistically significant difference ($p<0.05$) between both the first and second and between the second and third examinations. On vHIT, there was a statistically significant increase in the gains of individual channels during follow-up. Dissociation of vHIT and caloric test results was found in 25% of patients at the second and 17,5% of patients at the third examination. There was a statistically significant difference in the changes in test results of patients with different DHI. Conclusion: Multifrequency VOR testing provides a comprehensive overview of the status of vestibular function, recovery dynamics and clinical impact of residual vestibular dysfunction after AUVP.

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