

# Abstracts of the 7<sup>th</sup> Congress of the Romanian Rhinologic Society

## (1) FULMINANT MUCORMYCOSIS INVOLVING LEFT MAXILLARY SINUS – CASE REPORT

Alex Bonciu<sup>1</sup>, T. Almasan<sup>1</sup>, Alina Cordunianu<sup>1</sup>, V. Necula<sup>1</sup>, Simina Pelin<sup>1</sup>, Gabriel Ganea<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinic, “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Mucormycosis is defined as being an opportunistic fungal infection, of a very fulminant nature, that preponderantly affects immunocompromised patients. This rare fungal infection primarily affects the nasal cavity, paranasal sinuses and the brain. The danger is higher for diabetics with uncontrolled diabetes, although infection can occur in anybody with a compromised immune system. The main three cornerstones of treatment are immunosuppression reversal, amphotericin B administration and surgical debridement. Even if chances of survival have increased significantly, deaths can happen if an infection is not identified and treated early on, or if the underlying immunocompromising condition cannot be corrected. Rhino-oculo-cerebral and rhinomaxillary types can be distinguished, with the latter having a high mortality rate. This paper describes a case of mucormycosis that resulted in maxillary necrosis and affected the frontal, ethmoidal and maxillary sinuses on the left.

**METHODOLOGY:** This paper presents a case report of a 66-year-old severely immunocompromised male patient with a fulminant rhinomaxillary mucormycosis infection that resulted in death. From the patient’s medical history, the following diagnoses are to be remembered: chronic left maxillo-ethmoidal rhinosinusitis, left nasal septum deviation, type II diabetes, stage II essential hypertension, left bundle branch block and subdural hematoma. The presenting symptomatology included malaise, drowsiness, obtundation and deformation of the left genian region by the presence of a tumorous formation with an ischemic aspect. The paper aims to raise awareness of a very rare yet potentially fatal infection whose evolution and complications anticipate a strongly fulminant development.

**RESULTS:** The diagnosis of left rhinomaxillary mucormycosis has been established as a result of interclinical examination, radiology testing, endoscopic examination and histopathology result. The therapeutic conduct consisted of anteroposterior left ethmoidectomy,

with the excision of the avascular ethmoid mucosa, left antrostomy and quasi-total excision of the medial maxillary sinus wall and the inferior turbinate. The histopathological results for the fragments collected during the nasal endoscopic surgery established the definitive diagnosis of left rhinomaxillary mucormycosis. Regardless of the intensive care, the patient was declared deceased 6 hours later, in the ICU.

**CONCLUSION:** Rhinomaxillary mucormycosis is a very rare, but opportunistic infection with a high mortality rate that preponderantly affect the immunocompromised patients.

**KEYWORDS:** mucormycosis, fulminant, opportunistic.

## (2) SURGICAL TREATMENT OF CHRONIC HYPERTROPHIC RHINITIS

Preoteasa Ioana<sup>1</sup>, Lupoi Daniel<sup>1,2</sup>, Preda Mihai<sup>1,2</sup>

<sup>1</sup>ENT & HNS Department, “Sfanta Maria” Clinical Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Hypertrophy of the inferior turbinate is a common cause of chronic nasal obstruction. The purpose of the paper is to find an ideal procedure for turbinate reduction that can be performed with minimal adverse reactions or discomfort and preserve the physiologic function of the turbinate (regulation of humidification and temperature of inspired air).

**MATERIAL AND METHODS:** Patients with symptoms and signs of nasal obstruction associated with inferior turbinate hypertrophy refractory to medical therapy have undergone several surgical techniques such as radiofrequency tissue ablation, laser ablation of the turbinate, electrocautery, ultrasonic volumetric reduction, scissors mucotomy or microdebrider mucotomy.

**RESULTS:** It has been shown that radiofrequency turbinate reduction and Diode laser turbinate have similar efficacy, but mucotomy has better results in the long run.

**CONCLUSION:** All techniques have advantages and disadvantages (techniques with local anesthesia have long-term relapses and mucotomy requires nasal tamponade), but the choice of the surgical technique for shrinking the turbinates must be based on the patient’s specific pathologies and preferences.

**KEYWORDS:** rhinitis, radiofrequency volumetric tissue reduction, laser ablation, mucotomy.

### (3) NASAL POLYPOSIS ETIOPATHOGENESIS OF CLINICAL AND THERAPEUTICAL PECULIARITIES RETROSPECTIVE STUDY

Miruna Mateescu<sup>1</sup>, Romeo Costin<sup>1</sup>, Gabriel Ganea<sup>1</sup>, Andra Constantinescu<sup>1</sup>, Alina Petre<sup>1</sup>, Ion Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinic, Doctor "Carol Davila" Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Nasal polyposis is a frequently encountered pathology in ENT practice, accounting for 5% of the presentations in the ENT emergency room. Nasal polyps are benign tumors that start either from the mucosa of the paranasal sinuses, or from the mucosa of the nasal cavities. The etiology of nasal polyposis is unclear, but certain associations have been identified, the most common being asthma and allergies, especially to aspirin, called Widal Syndrome. Most patients complain about nasal obstruction symptoms, anterior/posterior rhinorrhea and less about hyposmia/anosmia and facial pain. The common factor found in all forms of nasal polyps is chronic inflammation of the nasal mucosa. In primary polyps (Widal Syndrome), the cellular inflammatory infiltrate is characterized by the presence of active eosinophils. In the secondary forms (ciliary dyskinesias), the infiltrate is predominantly neutrophilic granulocytic. The positive diagnosis is established with anamnesis, clinical and paraclinical examination. Computed tomography is a mandatory investigation in case of surgical approach. Nasal polyposis benefits from both medical and surgical treatment. The drug therapy of choice is saline solutions and corticosteroids, both systemic and topic, preoperatively reducing the inflammation of the pituitary mucosa and bleeding, and postoperatively diminishing the recurrence rate. The standard principle of surgical treatment is functional endoscopic sinus surgery, an intervention that improves both ventilation and drainage of the nasal cavities.

**MATERIAL AND METHODS:** Statistical retrospective case study on a group of 49 patients diagnosed and treated with both drugs and surgery in the ENT clinic of SUUMC during 01.09.2022-01.06.2023.

**RESULTS AND CONCLUSION:** The retrospective study included a number of 49 patients from which the following were concluded: nasal polyposis is more frequent among men, associated in more than 50% of the cases with chronic sinusitis. The major symptom was chronic nasal obstruction, 80% of the patients presenting with a known allergy to pollen or aspirin. Only 10% of the patients also had asthma.

**KEYWORDS:** Widal syndrome, nasal polyposis, principles of treatment.

### (4) IMPLICATIONS OF POST-TONSILLECTOMY DYSPHAGIA IN SINONASAL PATHOLOGY – A CASE REPORT

Csiszer Iren, Neagos Adriana, Copotioiu Sanda Maria  
"George Emil Palade" University of Medicine, Pharmacy, Science, and Technology of Targu Mures, Romania

**THE PURPOSE OF THE PAPER:** Velopharyngeal insufficiency

is a rare complication after tonsillectomy, it involves impaired mobility of the velopharyngeal sphincter. This condition involves the appearance of some phoniatric complications such as dysphagia for liquids, phonation disorders and sinonasal inflammatory diseases.

**MATERIAL AND METHODS:** We present the case of a 38-year-old patient who developed dysphagia and velopharyngeal insufficiency with progressive and persistent character seven days post-tonsillectomy, which resulted in multiple complications and the emergence of locoregional disorders.

**RESULTS:** After a clinical, paraclinical and imaging evaluation of the patient, a conservative treatment approach was chosen, under which the patient showed a good evolution.

**CONCLUSION:** Dysphagia secondary to post-tonsillectomy complicated with velopharyngeal insufficiency is rare. Often, the resolution of these conditions requires surgical treatment, because, untreated, this pathology can lead to multiple complications and can severely affect the quality of life.

**KEYWORDS:** dysphagia, sinonasal pathology, velopharyngeal insufficiency.

### (5) COVID AND SUPPURATIVE DACRYOCYSTITIS

Kis Andreea M, Trusca Doina, Chiriac Maria, Ilinca Laurentiu, Hirtie Bogdan, Negru Mihaela

ENT Clinic, Timisoara County Emergency Clinic Hospital, Timisoara, Romania

**BACKGROUND:** We report a case of a 79-year-old woman with left preseptal cellulitis complicated by acute suppurative dacryocystitis. who was locally to open the fistulisation of the lacrimal abscess.

**CASE PRESENTATION:** A 79-year-old woman COVID + went to the Ophthalmology ward with fistulized collection in the inner third of the anterior pole of the inferior eyelid and hyperaemia. She was first treated with Cefort 1 g x 2/day, Gentamicin 80 mg 1 x 2 f/day, ibuprofen and local treatment with Tolerom and L- Optic eye drops and Betabiophtal ointment, as well as Narivent intranasal. The CT examination showed a cystic formation measuring 2.7/1.5 cm, adjacent to the medial canthus of the left eye, extending into the nasolacrimal duct, with increased calibre. The patient refused the covid treatment and, due to the immunodepression, the evolution under antibiotics was stationary. The Ophthalmology ward referred the patient to Otorhinolaryngology to assess the permeability of the nasolacrimal duct.)

**CONCLUSION:** Acute dacryocystitis can develop in a serious condition, which must be treated with intravenous antibiotic therapy followed by surgery, based on the clinical history of the patient, in this case immunosuppression of a covid-positive patient.

**KEYWORDS:** suppurative dacryocystitis, covid positive, nasolacrimal duct abscess, orbital abscess.

### (6) PELLAGRA: OROPHARYNGEAL MANIFESTATIONS OF A RARE DISEASE

Miruna-Maria Danaila<sup>1</sup>, Daniel Lupoi<sup>1,2</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** The purpose of this scientific paper is to bring to attention a disease that was thought to have been almost completely eliminated in developed countries but that still exists. Pellagra is a nutritional deficiency disease that is caused by a lack of niacin (vitamin B3) in the diet. Nowadays, pellagra occurs in patients with chronic alcohol abuse or who are treated with specific medications (immunosuppressive and anti-tuberculosis drugs). Its manifestations include dermatitis, gastrointestinal symptoms, and neuropsychiatric ailments.

**MATERIAL AND METHODS:** We present the case of a 58-year-old patient known with chronic ethanol consumption and toxic hepatitis, who presented to our clinic for odynophagia and dysphagia for solids, which appeared a month prior to the presentation. The tongue and the entire buccal and pharyngeal mucosa were intensely erythematous and had whitish deposits. He also presented symmetrical erythematous eruption on the dorsal surface of the hands with considerable dryness and intense exfoliation of the epidermis.

**RESULTS:** The treatment was causal by administering niacin and also symptomatic, with both systemic and local anti-inflammatory medication for the skin lesions, local plastering with glycerine of the oral mucosa and parenteral nutrition until oral alimentation was resumed. A CT scan of the cervical region was also performed to rule out any other organic cause of dysphagia.

**CONCLUSION:** Because of the low prevalence of the disease nowadays, the physicians are not familiar with its recognition, and it often leads to delays in diagnosis and appropriate treatment. This case study emphasizes less common symptoms of pellagra and how to manage them, and also the importance of differential diagnosis. Therefore, a holistic approach to the patient's health condition is required, including both a detailed anamnesis (eating habits, alcohol consumption and medication), as well as a dermatological and neurological examination.

**KEYWORDS:** niacin, pellagra, dysphagia, vitamin B3.

#### (7) FROM EVALUATION TO INTERVENTION: A CASE OF CHRONIC DACRYOCYSTITIS COMPLICATED BY LACRIMAL SAC ABSCESS

Shirley Tarabichi<sup>1,2</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This paper aims to present a challenging case of lacrimal sac abscess as a complication of chronic dacryocystitis, highlighting the successful management and outcomes following endoscopic dacryocystorhinostomy (DCR).

**MATERIAL AND METHODS:** We present the case of a

52-year-old patient with a history of chronic dacryocystitis, who developed a left lacrimal sac abscess. The clinical examination, including the evaluation of tear drainage, lacrimal sac syringing, nasal endoscopy, and imaging studies, confirmed the diagnosis of a lacrimal sac abscess secondary to chronic dacryocystitis.

**RESULTS:** The lacrimal sac abscess was meticulously accessed and drained. Subsequently, the patient underwent endoscopic dacryocystorhinostomy (DCR). The surgical outcome successfully relieved the abscess, improved lacrimal sac drainage, and alleviated the patient's symptoms.

**CONCLUSION:** A lacrimal sac abscess, as illustrated in this case, can pose as a significant and challenging complication of chronic dacryocystitis. This case report highlights the successful management of such a case through endoscopic DCR. The surgical procedure allowed for the resolution of the lacrimal sac abscess, restoration of normal lacrimal sac drainage, and improvement in the patient's symptoms. The importance of a comprehensive diagnostic approach, including clinical examination, specialized imaging, and endoscopic evaluation is imperative for an accurate diagnosis. Moreover, an appropriate surgical intervention aligned with meticulous postoperative care is equally essential for achieving favourable outcomes.

**KEYWORDS:** lacrimal sac abscess, chronic dacryocystitis, endoscopic dacryocystorhinostomy.

#### (8) FROM THEORY TO PRACTICE: APPLICATIONS OF LASER MICROSURGERY IN EARLY GLOTTIC CANCER

Carmen Badea<sup>1,2</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>2</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

**PURPOSE:** The use of lasers has revolutionized the minimally invasive surgery of the larynx. This paper aims to provide an overview of the applications of CO<sub>2</sub> LASER microsurgery in the management of early glottic cancer, highlighting the transition from theoretical knowledge to practical implementation from the point of view of a young ENT surgeon.

**MATERIAL AND METHODS:** Relevant clinical cases and particular situations are presented to better illustrate the learning curve, the teamwork, and the proper instrumentation for such surgical procedures. We also discuss the indications, limits, and difficulties of LASER-assisted cordectomies and give some recommendations and steps to follow that could help each surgeon to avoid possible complications.

**RESULTS:** LASER surgery is an effective treatment modality for early glottic cancer, providing an excellent oncological outcome and precise tumor resection, thereby preserving laryngeal function and voice quality compared with traditional open surgical techniques. However, it is important to mention that the success of the surgery depends on many factors, such as the patient selection, the appropriate surgical technique, and the surgeon's experience.

**CONCLUSION:** Through this paper, we would like to empha-

size the importance of continuous education, mentorship, and skill development to ensure optimal patient outcomes in the management of glottic cancer.

**KEYWORDS:** early glottic cancer, LASER surgery, minimally invasive, cordectomy.

### (9) SURGICAL CHALLENGES IN ODONTOGENIC MAXILLARY FOREIGN BODIES

Mihai Preda<sup>1,2</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>2</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

**PURPOSE OF THE PAPER:** Endoscopic sinus surgery (ESS) has evolved considerably since its first application, becoming nowadays preferable to the classic surgical approach due to its less invasive aspects and shorter recovery time. Odontogenic sinusitis represents an infectious-inflammatory rhinosinusal pathology with a dental starting point, that has become an increasingly frequent pathology in the current rhinological practice. Concomitant management of the dental origin and the associated sinusitis ensures complete resolution of the infection and may prevent recurrence and complications. Therefore, the elimination of the source of the infection (e.g., removal of a foreign body from the sinus cavity) is mandatory.

**MATERIAL AND METHODS:** We present a series of cases in which the surgical treatment of odontogenic maxillary sinusitis (OMS) represented a challenge for the attending surgeon. Despite the preference for the functional endoscopic treatment, the external approach and extensive exploration of the sinus is often used because of the anatomical variability and the broad range and severity of this pathology. In addition, the dimensions, shape and nature of intrasinusal foreign bodies can represent great problems for the endoscopic approach.

**RESULTS:** Although in the vast majority of cases, endoscopic surgery was the chosen method for the treatment of OMS and for the extraction of intrasinusal foreign bodies, some situations required the external (Caldwell Luc procedure) or the mixed approach.

**CONCLUSION:** Even if we are discussing about functional endoscopic sinus surgery (FESS), the Caldwell-Luc procedure or the mixed approach, the surgical treatment must aim the removal of the foreign body, the restoration of the sinus lining and an efficient sinus drainage.

**KEYWORDS:** endoscopic sinus surgery, Caldwell Luc, foreign body, maxillary sinusitis.

### (10) THE REDUCTION OF NASAL AIRWAY RESISTANCE BY MAXILLARY SKELETAL EXPANSION AND ITS EFFECT ON NASAL CAVITY SIZE AND RESPIRATORY DISEASE

Ela Banica

Orthodontics and Dentofacial Orthopedics - Ortho Institute, Bucharest, Romania

"Carol Davila" University of Medicine and Pharmacy, Bucharest,

Romania

**OBJECTIVES:** The changes in facial structure occurring in modern humans have a lot to do with the extent mode in which they breathe.

If the face does not have the correct shape, it can affect oral function and proper breathing.

**MATERIAL AND METHODS:** We evaluated in our clinic more than 30 patients who presented difficulties related to breathing and malocclusions. The patients underwent craniofacial orthopedic treatment, myofunctional exercises and/or lingual frenectomy.

The results showed improvement in breathing, sleep, posture and cognitive functions.

**RESULTS:**

- Restoration and Reconstruction of the Airways
- Re-education of Oral Function and Breathing

Increases nasal cavity volume, reduces airway resistance and improves sleep disordered breathing.

So, for beneficial results, it is important that otolaryngologists and orthodontists provide a multidisciplinary management for patients with naso-respiratory problems, sleep-disordered breathing and malocclusions.

The craniofacial changes that can result from mouth breathing have the potential to reduce the size of the intraoral space, nasal cavity and pharyngeal airway. The reduction in intraoral space resulting from narrowing of the upper and lower jaws means that the space may not be sufficient to accommodate the tongue, which can then obstruct the pharyngeal airway.

**CONCLUSION:** We can prevent and treat OSA by: Class 2, Class 3 Growth and Skeletal Modification therapy; Myofunctional Therapy; Breathing Therapy; Maxillo-Mandibular Advancement surgery.

### (11) CRANIOPLASTY COMPLICATIONS CAUSED BY CHRONIC RHINOSINUSITIS

Maximilian George Dindelegan, Hunor Levente Horvath, Mădălina Blaga, Alma Aurelia Maniu

ENT Department, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

**INTRODUCTION:** Chronic rhinosinusitis with nasal polyposis is a persistent inflammation of the pituitary mucosa and paranasal sinus mucosa, accompanied by the presence of nasal polyps. Chronic rhinosinusitis in association with craniectomy and cranioplasty is a rarely described phenomenon in the literature, with significant implications in patient management. The objective of this case presentation is to review the rhinosinusal complications that may arise following neurosurgical interventions.

**CASE DESCRIPTION:** We present the case of a patient who developed a frontal abscess as a result of cranioplasty complicated by chronic rhinosinusitis, which had to be managed by the neurosurgical team and the cranioplasty plate had to be removed. The patient presented to our department with complaints of bilateral nasal obstruction and bilateral mucopurulent rhinorrhoea. Nasal endoscopy revealed bilateral

nasal polyps occupying both nasal cavities, along with mucopurulent secretions in the middle meatus. CT imaging revealed postoperative findings, including right frontal craniectomy, chronic sinus changes in the frontal sinuses extending into the anterior and posterior ethmoid cells, and bilateral involvement of the maxillary sinuses. Hypodense formations suggestive of nasal polyposis were observed in the nasal cavities. Surgical intervention was performed, including bilateral maxillary antrotomy, bilateral antero-posterior ethmoidectomy, lavage and aspiration of the frontal sinus, and bilateral polypectomy.

**RESULTS:** Two successive surgical interventions were performed to eradicate the infectious foci within the paranasal sinuses, particularly the frontal sinuses, in order to enable the neurosurgical team to proceed with a subsequent surgical intervention for the reconstruction of the frontal cranioplasty.

**CONCLUSION:** Although a small number of patients develop complications following frontal cranioplasty, these complications can jeopardize patients' lives. Therefore, it is crucial to maintain a high level of suspicion and have knowledge of the appropriate therapeutic management.

## (12) SURGICAL ALTERNATIVES FOR POSITIVE AIR PRESSURE THERAPY IN OBSTRUCTIVE SLEEP APNEA

George Dascalescu<sup>1</sup>, Ionut Tanase<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>CESITO Center, "Sfanta Maria" Clinical Hospital, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Obstructive sleep apnea (OSA) is a prevalent sleep disorder condition by repetitive episodes of complete collapse (apnea) or partial collapse (hypopnea) of the upper respiratory airway during sleep, despite respiratory effort, resulting in intermittent hypoxia and fragmented sleep. If left untreated, OSA may be associated with several comorbidities, such as cardiovascular and metabolic diseases. Currently, continuous positive air pressure (CPAP) is regarded as the gold-standard treatment for obstructive sleep apnea.

**MATERIAL AND METHODS:** We present several surgical alternatives for the CPAP therapy, with emphasis on the clinical presentation, diagnostic challenges, the proper patient selection for surgery, therapeutic efficacy and patient adherence.

**RESULTS:** Surgical treatment of patients with sleep apnea is often staged, multilevel and can be curative if the investigations prior to surgery have been carried out rigorously. At the same time, we can remember that this type of procedures can aim to increase compliance with the background treatment with non-invasive ventilation devices at home.

**CONCLUSION:** In the case of nasal re-permeabilization surgery as in the case of pharyngeal surgery, it is important to know that we must highlight the postoperative beneficial effect both in terms of objective polysomnography but also from a subjective point of view, which we will obtain by using questionnaires assessing patients' quality of life. Timely diag-

nosis and an appropriate surgical intervention can significantly improve the patient's quality of life.

**KEYWORDS:** sleep apnea, nasal obstruction, pharyngeal obstruction, surgical alternative.

## (13) CHALLENGES AND TREATMENT STRATEGIES FOR RHINOSINUSITIS IN A PATIENT WITH CYSTIC FIBROSIS

Pascu Mihai Alexandru<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This scientific paper aims to address the challenges faced in the treatment of chronic rhinosinusitis in a 50-year-old patient with cystic fibrosis (CF). Rhinosinusitis is a common pathology in CF patients, often presenting with chronic symptoms and complications that significantly impact the patient's quality of life.

**MATERIAL AND METHODS:** We present the case of a 50-year-old patient with a history of cystic fibrosis noncompliant to the numerous treatments she was given. The patient presented to our clinic with symptoms of severe nasal obstruction, rhinorrhea and hearing difficulties. Clinical examination, nasal endoscopy, imaging studies, audiogram and impedancemetry.

**RESULTS:** The treatment approach focused on a combination of medical interventions, including nasal hygiene, topical corticosteroids, saline irrigation, oral and inhalatory mucolytics and targeted antibiotic therapy to address underlying pathogens commonly associated with CF-related infections. Additionally, surgical interventions such as functional endoscopic sinus surgery (FESS) and tympanostomy with tube placement were considered in this case.

**CONCLUSION:** This case study involves a comprehensive evaluation of the clinical presentation, diagnostic approach, and treatment strategies employed for managing rhinosinusitis in this specific patient population. Understanding and addressing the challenges faced in diagnosing and managing rhinosinusitis in the context of cystic fibrosis is crucial for improving the quality of life for patients in this specific age group.

**KEYWORDS:** cystic fibrosis, chronic rhinosinusitis, functional endoscopic sinus surgery (FESS).

## (14) MANAGEMENT OF FRONTAL MUCOCELE – A CASE REPORT

Andrei Selman Mahmoud<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Frontal mucocele is a slow-growing benign cystic lesion that requires surgical intervention for resolution. The purpose of this paper is to explain the significance of individualized treatment planning based on the severity and extension of each mucocele case.

**MATERIAL AND METHODS:** A 74-year-old female patient presented in our clinic for a swelling in the left frontal sinus area accompanied by lateral and inferior deviation of the left ocular globe. No signs of visual disturbances or diplopia were seen. The computed tomography scan showed the presence of a mass in the left frontal sinus that eroded the sinus walls and extended into the orbit and intracranial region – anterior cranial fossa.

**RESULTS:** Considering the size, the location, and the extension of the mucocele, in this case, complete removal of the left frontal mucocele was ensured by a combined endoscopic and open approach. The sinus cavity was meticulously irrigated with saline water in order to remove any residual mucous material.

**CONCLUSION:** Mucoceles have a complex etiology that includes inflammatory conditions, allergies, trauma, anatomical abnormalities, fibrous dysplasia, osteomas, and ossifying fibromas. Frontal mucocele typically presents with symptoms such as chronic frontal headaches, facial pain, swelling in the forehead region, and sometimes visual disturbances. The diagnosis of mucocele is based on a clinical investigation associated with imaging examination. The selection of the surgical approach for frontal mucocele is contingent upon various factors, including the size and extent of the mucocele, involvement of surrounding structures, and surgeon expertise. The two main surgical techniques commonly used for frontal mucocele treatment are endoscopic sinus surgery and open surgical approaches.

**KEYWORDS:** frontal sinus mucocele, orbital extension, intracranial extension, combined approach.

#### (15) AN INVASIVE ASPERGILLUS FLAVUS SINUSITIS IN AN IMMUNOCOMPETENT PATIENT USING INTRANASAL COCAINE: A CASE REPORT

Ashraf Al-kalbani<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This scientific paper aims to highlight the potential for severe opportunistic infections in individuals using intranasal cocaine, even in the absence of immunodeficiency. Cocaine abuse is known to cause chronic inflammation and damage to the nasal mucosa, leading to increased susceptibility to infections. The case report of an immunocompetent individual developing invasive *Aspergillus flavus* sinusitis – a condition typically associated with immunocompromised states – underscores this risk.

The paper further seeks to stress the importance of a comprehensive and aggressive approach in the management of these cases. It provides insight into the critical role of early diagnosis, the application of functional endoscopic sinus surgery, and the implementation of appropriate systemic antifungal therapy.

Finally, the case report demonstrates the significance of addressing underlying substance misuse issues within the treat-

ment plan. By sharing our experience and the patient’s journey through treatment and recovery, we hope to provide valuable insights that could aid clinicians in managing similar future cases.

**MATERIAL AND METHODS:** A 33-year-old male patient with a history of intranasal cocaine use presented with unilateral facial pain, nasal obstruction, and persistent purulent rhinorrhea. The examination revealed nasal septal perforation and mucosal changes. Despite an initial course of antibiotics, the patient’s condition worsened. The Computed Tomography (CT) scan demonstrated a soft tissue mass in the affected sinus. Biopsy confirmed the presence of *Aspergillus flavus*.

**RESULTS:** The patient underwent aggressive surgical debridement via functional endoscopic sinus surgery (FESS), followed by systemic antifungal therapy with voriconazole. Cocaine cessation was also addressed as a part of comprehensive patient management. At the six-month follow-up, the patient exhibited symptom resolution and showed no signs of disease recurrence.

**CONCLUSION:** This case emphasizes the potential for opportunistic fungal infections like *Aspergillus flavus* sinusitis in patients with cocaine-induced nasal mucosal damage, even in the absence of traditional immunodeficiency. The case underscores the need for a high index of suspicion, early biopsy, and an aggressive multidisciplinary approach, incorporating both medical and surgical intervention, along with substance misuse counselling.

**KEYWORDS:** invasive *Aspergillus flavus* sinusitis, cocaine abuse, immunocompetent, endoscopic sinus surgery, antifungal therapy.

#### (16) ENDOSCOPIC MANAGEMENT OF A TORNWALDT CYST: A CASE REPORT

Socaci Beatrice-Andreia<sup>1</sup>, Camburu Sandra<sup>1</sup>, Musat Gabriela-Cornelia<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This scientific paper’s aim is to underline the importance of clinical and paraclinical studies in the diagnosis of Tornwaldt cyst. Tornwaldt cyst is a rare, congenital, benign cyst found in the posterior medial wall of the nasopharynx.

**MATERIAL AND METHODS:** We present a case of a 28-year-old patient, who was admitted to our clinic with foreign body sensation in the oropharynx and nasopharynx area, which had debuted 2 months prior to admission, with no pain associated. The nasal endoscopic examination revealed a cystic mass of around 2 x 3 cm, symmetrical, well encapsulated, smooth-surfaced, round-oval shaped, which almost obstructed the choanal frame.

**RESULTS:** Tornwaldt cysts can be asymptomatic, but they may develop nonspecific symptoms such as nasal obstruction, postnasal drip, chronic headaches, recurrent sinusitis, phar-

yngeal discomfort, or eustachian tube dysfunction. The diagnosis process usually involves a detailed history, physical examination, nasal endoscopy, and imaging. Given the investigations, the patient underwent surgery using 0 degree rigid endoscopes and a DIODE laser. Purulent secretions were aspirated, vaporizing the anterior capsule of the cyst. The cyst was successfully marsupialised. No recurrence was identified at the 6-month follow-up.

**CONCLUSION:** Such benign tumors may occur incidentally on imaging examination or may cause symptoms in the context of infection, being one of the surgical indications of Tornwaldt cysts. The adequate therapy is cyst drainage and marsupialisation.

**KEYWORDS:** Tornwaldt cyst, marsupialisation, diode laser.

### (17) AN UNUSUAL CASE OF INTRASINUSAL FOREIGN BODY – UPDATES ON DIAGNOSTIC AND TREATMENT APPROACHES

Andrei Stefanescu<sup>1</sup>, Ionut Tanase<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

<sup>2</sup>CESITO Centre, “Sfanta Maria” Hospital, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Foreign bodies are occasionally found in the paranasal sinuses. The purpose of this study is to highlight the importance of the prompt diagnosis and treatment in patients with maxillary sinusitis secondary to foreign bodies.

**MATERIAL AND METHODS:** We describe the case of a 47-year-old patient with a history of recurrent sinusitis and multiple dental transalveolar interventions. A year ago, the patient underwent a dental intervention with placement of a drainage tube at the level of the right maxillary sinus, exteriorized in the oral cavity. She presented to our clinic for halitosis and purulent discharge through the drainage tube, symptomatology that started shortly after the last dental treatment. The ENT clinical examination and nasal endoscopy evidenced a drainage tube at the level of molar 1.7, with active exteriorization of purulent secretions. Areas of bone and gingival necrosis were also found. The CT scan revealed right maxillary sinusitis and the drainage tube at this level.

**RESULTS:** An endoscopic middle meatotomy and removal of the drainage tube were performed with no intra- or postoperative complications. At follow-up one year later, no recurrence was seen.

**CONCLUSION:** The common causes for sinus foreign body are the following: iatrogenic, facial trauma, the entry of material via an oroantral fistula. The foreign bodies are detected by imaging investigations such as radiography, computed tomography, magnetic resonance imaging, and ultrasonography. The treatment is represented by surgical removal of the foreign body, either through an endoscopic approach or, if the endoscopic approach is inadequate for visualization, a combined approach, with the Caldwell-Luc procedure.

**KEYWORDS:** foreign bodies, maxillary sinusitis, dental intervention, endoscopic approach.

### (18) THE SURGICAL MANAGEMENT OF PARANASAL SINUS OSTEOMAS

Bejenariu Andreea Elena<sup>1,2</sup>, Milea Alex Iulian<sup>1,2</sup>, Sarafoleanu Codrut<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Clinical Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Sinonasal osteomas are benign bony tumors, usually discovered in the frontal and ethmoidal sinuses. In most of the cases, the endoscopic approach is preferred to the external one, with almost the same postoperative results, but with a better quality of life for the patient, with a quicker recovery and without cosmetic sequelae. However, there are still patients who need an external approach to guarantee the complete resection of the tumor. The purpose of the paper is to point out the most efficient surgical approaches of the sinonasal osteomas.

**MATERIAL AND METHODS:** We report a retrospective analysis of paranasal sinuses osteomas that were treated in the ENT department of “Sfanta Maria” Clinical Hospital from Bucharest between 2017-2023. There were 11 cases with sinonasal osteomas, 7 men and 4 women, aged between 16 and 65 years.

**RESULTS:** Most of the patients (6 cases) had osteoma with fronto-ethmoidal localization, while 4 cases had osteoma localised in the frontal sinus and one case had ethmoidal sinus osteoma. It was observed that the management of sinonasal osteoma is influenced by the presence of symptoms, the osteoma's dimension, the localization of the osteoma, its effect on sinus drainage and possible complications. Referring to the therapeutic management of sinonasal osteomas, the endoscopic approach was performed in most of the patients (63.63%, 7 cases), the external approach in 18,18% of the cases, while for 9% of the patients, a combined approach was chosen. For 9% of the patients, the conservative treatment was applied.

**CONCLUSION:** When tumor characteristics allow, the endoscopic approach is the preferred management of paranasal sinus osteomas. The external approach is chosen when the endoscopy is not sufficient for a complete resection of the sinonasal osteoma.

**KEYWORDS:** sinonasal osteoma, frontal sinus, endoscopic approach, fronto-ethmoidal localization.

### (19) THE EFFICACY OF PLATELET-RICH FIBRIN IN TREATING CEREBROSPINAL FLUID RHINORRHEA

Dragos Terteci-Popescu<sup>1</sup>, Cristina Tiple<sup>1,2</sup>, Mirela Stamate<sup>1,2</sup>, Daiana Birta<sup>1</sup>, Sever Pop<sup>1,2</sup>, Magdalena Chirila<sup>1,2</sup>

<sup>1</sup>ENT Department, County Emergency Hospital, Cluj-Napoca, Romania

<sup>2</sup>ENT Department, “Iuliu Hatieganu” University of Medicine and Pharmacy, Cluj-Napoca, Romania

**PURPOSE OF THE PAPER:** Cerebrospinal fluid rhinorrhea is a condition in which leakages of cerebrospinal fluid (CSF) are present due to defects in the skull-base. Depending on

the etiology, it can be classified in traumatic, iatrogenic, tumoral or idiopathic. The treatment for CSF rhinorrhea can be realized by using several materials, including autologous grafts (such as adipose tissue, muscle fascia, turbinate mucosa) and artificial adjuvants (Surgicel or Gelfoam). One of the methods recently introduced for treating CSF rhinorrhea involves using a platelet-rich fibrin (PRF) aggregate, an autologous graft with enhanced healing properties due to its cytokine production abilities. This study focuses on the efficacy of PRF as a sealant in treating CSF rhinorrhea, by evaluating the crust production during the healing process.

**MATERIAL AND METHODS:** We performed an observational retrospective study on 26 cases of CSF rhinorrhea, treated at the Ear, Nose and Throat Department of the Emergency County Hospital of Cluj-Napoca. The patients introduced in the study underwent endonasal surgery through endoscopic approach in order to treat CSF rhinorrhea and were separated into two groups, one treated using PRF along with autologous fat and other adjuvants, and one in which the patients were treated without the use of PRF. The PRF was obtained by centrifugating the blood of the patient, collected during the surgical intervention, using the Choukroun Centrifuge System.

**RESULTS:** In treating CSF rhinorrhea, we observed that PRF offered superior healing, both in terms of speed and quality, with less crusts, and a lower risk of relapse, thus removing the necessity of further interventions or intensive post-operative care. Notably, we obtained a statistical p-value lower than 0.05, validating the present results. In addition, the vast majority of the patients treated with PRF did not require additional interventions in order to completely seal the fistula. Moreover, no patient developed either intra- or post-operative complications.

**CONCLUSION:** Due to its remarkable healing properties and being an easy-to-obtain autologous graft, PRF can be considered a very useful sealant in treating cerebrospinal fluid rhinorrhea, reducing the necessity of further interventions and increasing the overall post-operative quality of life.

**KEYWORDS:** platelet-rich fibrin, cerebrospinal fluid, autologous graft, crust production, endonasal surgery.

## (20) SOLITARY FIBROUS TUMOR OF THE NASAL FOSSA – A CASE PRESENTATION

**Dragos Terteci-Popescu<sup>1</sup>, Cristina Tiple<sup>1,2</sup>, Mirela Stamate<sup>1,2</sup>, Daiana Birta<sup>1</sup>, Sever Pop<sup>1,2</sup>, Magdalena Chirila<sup>1,2</sup>**

<sup>1</sup>ENT Department, County Emergency Hospital, Cluj-Napoca, Romania

<sup>2</sup>ENT Department, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

**INTRODUCTION:** Solitary fibrous tumor (SFT) is a rare mesenchymal tumor of fibroblastic origins, initially and usually observed in the pleura, but it has the ability to develop in any part of the body. SFT was previously labelled as a subtype of hemangiopericytoma; however, the 2020 WHO classification of soft-tissue tumors defined it as an intermediate (rarely metastasising) fibroblastic/myofibroblastic tumor. It is consid-

ered a subtype of sarcoma, usually with benign manifestations, yet presenting malignant transformation risk and metastatic possibilities through hematogenous ways. While it usually develops in the pleura, other sites include the abdominal cavity, meninges, limbs, breast, liver, kidney and the head-and-neck area. The surgical treatment with negative margins represents the recommended form of treatment, associated with adjuvant radiation therapy, depending on the histopathological characteristics and risk factors.

**CASE PRESENTATION:** A 70-year-old female patient, with no comorbidities, presented in the ENT department of the County Emergency Hospital of Cluj-Napoca with long-time symptoms of nasal obstruction and rhinorrhea. The nasal endoscopy revealed a tumor with benign clinical characteristics, occupying the left nasal fossa, without extension in the nearby tissues on the CT scan. The patient presented with a histopathological result of hemangiopericytoma from a biopsy performed in another hospital. The tumor was resected completely, along with healthy surrounding tissue through endonasal endoscopic approach. The histopathological result revealed a fibrous solitary tumor of the nasal fossa, with no malignant characteristics. The case required no additional post-operative oncologic treatments.

**CONCLUSION:** A fibrous solitary tumor is a rare form of mesenchymal tumor, generally presenting benign clinical manifestations. Nevertheless, SFT has the possibility to become malignant, and develop in any organ, with a very rare incidence in the head-and-neck area. The diagnostic is determined based on the histopathological examination, while the treatment usually requires the surgical removal with negative margins. In some cases, adjuvant radiation therapy is also necessary, depending on the histopathological characteristics.

**KEYWORDS:** solitary fibrous tumor, mesenchymal tumor, hemangiopericytoma, endoscopic approach, head-and-neck surgery.

## (21) A MULTIPARAMETRIC ANALYSIS TO DEFINE THE BENEFICIAL EFFECTS OF TOPICAL THERAPY IN ALLERGIC HHT PATIENTS THROUGH A NEW UPDATED QUESTIONNAIRE

**Mariaconsiglia Santantonio, Rolando Rolesi, M Sollazzo, N Vecchioli, G C Passali,**

on behalf of Multidisciplinary Gemelli Group For HHT  
*UOC di Otorinolaringoiatria, Fondazione Policlinico Universitario A Gemelli, Rome, Italy*

**BACKGROUND AND PURPOSE:** Hereditary haemorrhagic telangiectasia (HHT) is a rare genetically transmitted disease characterized by multiple arteriovenous malformations (AVMs). One of its most notable clinical manifestations is recurrent epistaxis, although it is not the only symptom and may not always be present. In Italy, approximately 13,000 individuals are affected by this condition, making HHT one of the most prevalent rare diseases. In our study, we aimed to explore the effectiveness of various therapies in managing HHT and their impact on the frequency and severity of epistaxis. We specifically investi-



gated the potential influence of aero-allergies, which are known to cause significant deterioration of the nasal mucosa. Additionally, we sought to develop a comprehensive yet concise questionnaire that could be administered to patients to optimize long-term data collection.

**MATERIAL AND METHODS:** Our study included 95 subjects, with 48 females and 47 males. Among the participants, 37 individuals had aero-allergies (Group 1), while 58 were non-allergic (Group 2). In terms of treatment, Group A (47 subjects) consisted of patients who underwent topical nasal therapy, while Group B (48 subjects) comprised patients who did not receive any therapy.

**RESULTS:** Our analysis indicates that there is no clear association between allergy and the severity of epistaxis in this patient population. Furthermore, a statistically significant association between therapy and epistaxis intensity was highlighted.

**CONCLUSION:** Our findings reveal that the presence of documented aero-allergy does not appear to exert a substantial influence on the frequency and intensity of bleeding episodes. In contrast, the adequacy of therapy and the consistency of patient adherence to prescribed treatments emerged as a key protective factor against higher intensity episodes of epistaxis.

**KEYWORDS:** epistaxis, rhinology, allergic rhinitis, HHT, questionnaire.

## (22) FROM CT TO 3D, NEW APPROACHES IN PRESURGICAL EVALUATION OF RHINOSINUSAL PATHOLOGIES

Dragomir Mihai<sup>1,2</sup>, Codrut Sarafoleanu<sup>2,3</sup>

<sup>1</sup>Centre for Innovation and e-Health – UMFCD, Bucharest, Romania

<sup>2</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

<sup>3</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This paper aims to present a comparison of different methods of digital reconstruction and presurgical visualization of rhinosinusal pathologies, highlighting pros and cons of traditional imaging versus volume rendering and digital 3D reconstructions using segmentation protocols.

**MATERIAL AND METHODS:** We present different methods of segmentation, 3D reconstruction and plane-cutting in various rhinosinusal pathologies, from infecto-inflammatory diseases to tumors. We compare the amount of information that these methods offer to the surgical team, highlighting the ease through which new methods allow for visualisation of the entire pathological process from different perspectives.

**RESULTS:** Current digital processing methods and 3D reconstructions allow for greater degrees of freedom in visualising complex pathologies. Using 3D digital tools, we can separate different anatomical structures to better define and highlight pathological entities within the complex 3D space of rhinosinusal anatomy. From simple volume rendering to more com-

plex 3D segmentations and reconstructions, each step offers more information, but requires more complex digital processing of the given DICOM data.

**CONCLUSION:** Current presurgical protocols in rhinosinusal pathologies require the interpretation and translation of 2D CT/MRI images into the complex, tridimensional anatomy of the nose and paranasal sinuses. Using modern technology, this process can be streamlined and developed into full 3D reconstructions representing the entire pathological process, greatly increasing the amount of information offered to the surgical team.

**KEYWORDS:** DICOM Segmentation, 3D Reconstruction, Volume Rendering, Virtual planning .

## (23) MANAGEMENT OF CRSWNP WITH NASAL BONE DEFORMITY IN A PATIENT WITH IMPORTANT COMORBIDITIES

Birligea Andreea<sup>1</sup>, Melinte Violeta<sup>1</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** This scientific paper aims to address the challenges faced in the treatment of chronic rhinosinusitis with nasal polyps in a 55-year-old patient, who presented with progressive broadening of the nasal dorsum. Woakes’ syndrome is a rare entity, defined as severe recurrent nasal polyposis with consecutive deformity of the nasal pyramid, with only a few reports documenting surgical treatment of the external nose.

**MATERIAL AND METHODS:** We present the case of a 55-year-old patient with sinus disease with nasal polyps, asthma, NSAIDs allergy (Samter’s triad) and hepatic cirrhosis with portal hypertension. The patient presented to our clinic with severe bilateral nasal obstruction, rhinorrhea and cephalalgia and nasal pyramid deformity. The CT scan revealed extensive bilateral nasal polyposis that occupied the entire paranasal sinuses, with extension in the nasal cavities (complete obstruction) and in the nasopharynx.

**RESULTS:** Due to the multiple comorbidities, interdisciplinary consultations were needed in order to evaluate the possibility of general anesthesia and also to evaluate the surgical risks, such as extensive bleeding. As a result of the disease extension and the major modification of anatomic landmarks, it was decided to perform functional endoscopic sinus surgery (FESS). Postoperatively, the patient experienced significant improvement in nasal airflow.

**CONCLUSION:** As seen in the literature, functional endoscopic sinus surgery (FESS) has proven to be a better therapeutic option for such patients rather than aggressive surgery, providing relief from severe nasal obstruction. However, neither one of the current therapeutic options of CRSWNP addresses the cause of this pathology. Therefore, in the future, the main therapeutic option will be the biological therapy (monoclonal antibodies), which acts upon type 2 inflammation, which is involved in the nasal polyposis etiology.

**KEYWORDS:** nasal polyps, nasal pyramid deformity, functional endoscopic sinus surgery (FESS), Woakes’ syndrome.

**(24) RIGHT FRONTAL SINUS OSTEOMA – A CASE REPORT**

Alina Petre<sup>2</sup>, R. Costin<sup>1,2</sup>, G. Ganea<sup>1</sup>, Miruna Mateescu<sup>2</sup>,  
Andra Constantinescu<sup>2</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinical Department, “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>ENT Specialty, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**BACKGROUND:** Osteomas are benign tumours that are usually asymptomatic and, in most cases, they involve the frontal sinuses. These tumors are the most common and they manifest as slow-growing painless masses, which can lead to compression over the surrounding structures and facial deformities. Our study aims to present our experience in treating a patient with frontal sinus osteoma.

**MATERIAL AND METHODS:** In the current paper, we report a case of right frontal osteoma in a 40-year-old woman presenting headache, that did not improve by non-steroidal anti-inflammatory drugs and a frontal deformity. The surgical approach was both open and endoscopic, with no complications and a good outcome.

**RESULTS AND CONCLUSION:** The diagnosis of frontal sinus osteoma was based on clinical examination, imagistic findings and histopathological examination. Our surgical method aimed to eradicate the tumor and no recurrence was observed after 1 year of follow-up.

**KEYWORDS:** frontal sinus, osteoma, surgery.

**(25) CHRONIC RHINITIS – ETIOPATHOGENIC, CLINICAL AND THERAPEUTIC PARTICULARITIES – CLINICAL STUDY**

Raluca Zachia<sup>1</sup>, Emma Balan<sup>1</sup>, Ruxandra Marinescu<sup>1</sup>,  
Minodora Matasaru<sup>1</sup>, Roxana Andries<sup>1</sup>, I. Mghir<sup>1</sup>,  
M. Ziani<sup>1</sup>, Z. Latif<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Department, “Dr. Carol Davila” Central Emergency Military Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Chronic rhinitis is defined as the chronic inflammation of the nasal mucosa. It is one of the most common respiratory tract conditions, affecting 10-50% of the population. The main symptoms include rhinorrhea, nasal obstruction, and sneezing. Etiologically, chronic rhinitis is classified into two main categories: allergic, which is frequent in children, and non-allergic, found in 17-52% of the cases in adults. The most common causes of non-allergic chronic rhinitis are exposure to irritants, vasomotor rhinitis, nasal septum deviation, chronic sinusitis, or nasal polyposis. The latter two are often associated with chronic inflammation of the nasal mucosa, with nasal polyposis representing 5% of non-allergic rhinitis cases. The diagnosis is established based on medical history and ENT clinical examination, including anterior rhinoscopy or nasal endoscopy. Major signs include hypertrophy of the inferior nasal turbinates, edematous mucosa, with a slightly hyperaemic aspect, mucopurulent secretions in the nasal cavities or the presence of polyps. Depending on its cause, chronic rhinitis is treated either with medication, such as

oral or topical steroids, antihistamines, and nasal decongestants, or surgically in refractory cases.

**MATERIAL AND METHODS:** Retrospective study conducted on a group of 150 patients diagnosed with chronic rhinitis, hospitalized and treated in the ENT department of our hospital between July 1, 2022, and May 15, 2023.

**RESULTS AND CONCLUSION:** Out of the total of 150 patients, 85 were male, accounting for 56.6%. The diagnosis of chronic rhinitis, without the association of other conditions, was identified in only 5.5% of the total, comprising 9 patients. The remaining patients had associated nasal septum deviation, chronic sinusitis or nasal polyposis, with nasal septum deviation being the most frequent, present in 96 patients (64%). 30% of the patients had associated nasal polyps, and chronic sinusitis was diagnosed in 20% of the patients. Surgical intervention was the preferred approach. The performed interventions, in addition to septoplasty, polypectomy or sinus surgery, were represented by electrocauterization of the inferior nasal turbinates, performed in 115 patients (76.6%), and partial turbinectomy, performed in 23.3% of the cases. The postoperative evolution was favourable for both types of interventions, with similar curative results. All patients treated with electrocauterization of the inferior turbinates developed crusts at the site of intervention during the recovery period, a complication that can lead to injuries to the mucosa during wound care and crust removal. In the patients who underwent partial turbinectomy, such crusts were not observed, which may be an advantage. However, the higher risk of bleeding associated with this procedure requires significant postoperative nasal packing.

**KEYWORDS:** chronic rhinitis, allergic rhinitis, non-allergic rhinitis, electrocauterization, turbinectomy.

**(26) CHRONIC RHINOSINUSITIS – ETIOPATHOGENESIS OF CLINICAL AND THERAPEUTICAL PECULIARITIES RETROSPECTIVE CLINICAL STUDY**

Andra Constantinescu<sup>2</sup>, Romeo Costin<sup>1</sup>, Gabriel Ganea<sup>1</sup>,  
Mateescu Miruna<sup>2</sup>, Petre Alina<sup>2</sup>, Ion Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinic, Doctor “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Chronic rhinosinusitis is one of the most common pathologies of the upper respiratory tract, characterized by inflammation of the nasal mucosa and paranasal sinuses, lasting up to 12 weeks in the case of acute rhinosinusitis or more than 12 weeks in the case of chronic rhinosinusitis. The incidence of chronic rhinosinusitis without the association of nasal polyps is higher than that of chronic rhinosinusitis with nasal polyps. In most cases, the etiology is unclear, but certain risk factors have been identified, such as genetic predisposition, environmental factors and allergic and non-allergic pathologies of the upper and lower respiratory tract. The goal of treatment in chronic rhinosinusitis is to reduce the inflammation of the rhinosinusal mucosa, fa-

your sinus drainage, with the evacuation of intrasinus secretions, and to produce microbial (bacterial or fungal) eradication. This effect can be obtained by drug therapy, by combining topical and oral glucocorticoids, oral antibiotics and saline nasal irrigation, or surgical approach, by functional endoscopic surgery of the sinuses.

**METHOD AND MATERIALS:** The retrospective study that took place between 01.03.2022-01.06.2023 included a group of 91 patients, of which 51 men and 40 women, admitted to the ENT clinic section of S.U.U.M.C., Bucharest.

**RESULTS AND CONCLUSION:** The diagnosis of chronic rhinosinusitis was established on the basis of the clinical and fibroscopic examination completed with the result of the imaging examination (classic X-ray or CT). For 27.2% of the patients, it was proposed to combine drug therapy with the surgical approach, using topical and oral glucocorticoids for patients with chronic rhinosinusitis with nasal polyps and antibiotic therapy and saline inhalations for patients with chronic purulent rhinosinusitis. 100% of the patient group underwent a CT examination of the paranasal sinuses, thus establishing the surgical approach. The vast majority of the patients, 61.53%, were diagnosed with chronic rhinosinusitis without nasal polyps, 8.76% of the patients were diagnosed with chronic rhinosinusitis associated with cystic degeneration in the maxillary sinuses, and 29.71% were diagnosed with chronic rhinosinusitis with nasal polyps. The post-operative evolution of the patients was favourable, without postoperative complications.

**KEYWORDS:** chronic rhinosinusitis, nasal polyps, maxillary sinus cysts.

## (27) MODERN APPROACH TO ENDOSCOPIC DACRYOCYSTORHINOSTOMY WITH LASER

**Cernei Vadim**

(Scientific coordinator *Vetricean Sergiu, dr. hab. med. sci., Associate prof., Department of Otorhinolaryngology*)

**INTRODUCTION:** The pathology of the lacrimal system still remains one of the current issues for ophthalmology and rhinology, since lacrimal duct disorders are frequent. The incidence of this pathology in able-bodied people is 71-85%. In recent years, with the development of endoscopic surgery and laser surgery, endoscopic endonasal dacryocystorhinostomy (DCR) becomes increasingly preferred. The procedure has a number of advantages, being as effective as the classic external dacryocystorhinostomy. The efficiency, advantages and possible complications of this method are discussed and compared. Many specialists consider that endoscopic dacryocystorhinostomy is more justified, as the surgical method shortens the surgical intervention time. One of the advantages of endoscopic dacryocystorhinostomy is the absence of external incisions at the level of the nasal pyramid. The disadvantage of classic external dacryocystorhinostomy is the use of cold instruments and the lack of hemostasis. Surgeons coagulate the mucosa with the bipolar cautery. The most common cause of unsatisfactory long-term results in endonasal DCR

is the scarring of the artificial anastomosis.

**MATERIAL AND METHODS:** Selective literature has been studied to determine the most effective methods of preoperative diagnosis, indications and contraindications, surgical technique and correction of concomitant ENT pathologies, peculiarities of the postoperative period management.

**RESULTS:** Recent evidence suggests that laser DCR is a viable and well-tolerated treatment option for patients suffering from nasolacrimal duct obstruction, with favourable outcomes and shorter operating time. In these cases, treatment of choice consists of restoring normal nasolacrimal flow. More recent studies suggest improvements in success rates compared to older studies. Furthermore, well-designed comparative studies are needed.

**CONCLUSION:** Laser endoscopic endonasal dacryocystorhinostomy is a minimally invasive, high-performance operation, which allows for the correction of concomitant ENT pathologies in a single stage and can be successfully implemented in the clinical practice of the ENT department.

**KEYWORDS:** dacryocystorhinostomy, nasolacrimal duct obstruction, epiphora, endoscopic endonasal surgery.

## (28) DIAGNOSIS AND TREATMENT OF FUNGAL RHINOSINUSITIS: CASE REPORT

**Rosoaga Mihaela-Raluca<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>**

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** In the context of rhinosinusitis, a "fungus ball" refers to a specific type of fungal infection that forms within the sinuses. This scientific paper attempts to underline the necessity of an early diagnosis and treatment for this pathology.

**MATERIAL AND METHODS:** We present a case of a 48-year-old patient with symptoms of left hemispheric pain, left nasal obstruction, pressure in the maxillary sinus area and muco-purulent posterior rhinorrhea. The clinical examination, nasal endoscopy, the CT scan and the histopathological examination confirmed the diagnosis of chronic maxillo-ethmoidal fungal rhinosinusitis.

**RESULTS:** In this case, endoscopic left maxillary antrostomy and left ethmoidectomy were performed. Postoperative recovery was completed under systemic anti-inflammatory steroids, targeted antibiotic therapy, and daily nasal hygiene with topical corticosteroids and saline solutions was initiated.

**CONCLUSION:** The spectrum of pathologic disorders linked to sinonasal inflammation and caused by the presence of fungi is commonly referred to as fungal rhinosinusitis. Fungal balls are commonly caused by a specific group of fungi called *Aspergillus* species, particularly *Aspergillus fumigatus*. However, other fungal species can also be involved. The treatment for a fungal ball generally involves surgical removal of the mass through endoscopic sinus surgery.

**KEYWORDS:** fungal sinusitis, nasal obstruction, surgical treatment, endoscopic surgery.

### (29) DIFFICULT ENCOUNTERS – ARE DOCTORS RESPONSIBLE FOR PREVENTING BAD OUTCOMES?

Adriana-Sorina Antohe, Adriana-Nicoleta Manolache

Family Medicine, SC Clinica Dr. Adriana Antohe SRL, Bucharest, Romania

**BACKGROUND:** The doctor-patient relationship has crucial importance to both doctors and patients, not only for the outcome but also for their whole lives. Doctors remain productive and fulfilled and can actively listen to all their patients until the end of their working days, while patients receive good care and stay healthy, trusting the medical teams that they choose to visit.

A lot of patient-physician encounters are assessed as “difficult” and this has to do with a lot of elements: patient characteristics, physician attitudes but also situational issues. Being aware of all these factors can change how we relate with our patients, but also how we prepare in advance and arrange our career, to avoid burnout and evolve.

**METHODS:** An engaging lecture session on key essential components of the right strategy to manage difficult encounters with patients.

**RESULTS:** This session will provide the audience with an overview of how to help patients find resources to collaborate with doctors, so that doctors use appropriate power to manage a difficult consultation.

**CONCLUSION:** In modern times, we are compelled to learn, use and refine the communication techniques of the doctor-patient relationship, as they have a significant impact on patient outcomes.

Identifying barriers and exploring the characteristics of both doctors and patients associated with being considered difficult can lead to transformative changes in our practice and in ourselves.

### (30) EMBOLIZATION IN POSTERIOR EPISTAXIS – CLINICAL CASE

Cristian Neagos<sup>1</sup>, Adriana Neagos<sup>1</sup>, Lucian Marginean<sup>2</sup>, Vlad Vunvulea<sup>2</sup>

<sup>1</sup>ENT Clinic, County Emergency Clinical Hospital of Targu Mures, Romania

<sup>2</sup>Radiology Department, County Emergency Clinical Hospital of Targu Mures, Romania

**INTRODUCTION:** Posterior epistaxis has its origin most often in the Woodruff plexus, which is located on the lateral wall of the nasal cavity, below the posterior end of the inferior nasal concha (turbinate) and at any branches of the sphenopalatine artery. Posterior epistaxis is less common than anterior but is likely to require aggressive management. Severe refractory posterior epistaxis may require invasive treatment options such as transcatheter embolization.

**MATERIAL AND METHODS:** A 56-year-old male, a heavy smoker, known with 3rd-degree hypertensive heart disease, presents to the ER with acute hypertensive STEMI (inferior and right ventricle) with occlusion of the right coronary artery and severe posterior epistaxis. The first approach was percutaneous transluminal coronary angio-

plasty (3 drug-eluting stents). Anterior and posterior nasal packing was performed without any improvement. After 48 hours, another nasal packing was performed, also without any success, because the patient was treated with antiplatelet drugs after PTCA. After 2 failed anterior and posterior nasal packings, we discussed the case with the radiology department and we decided to consider sphenopalatine artery transcatheter embolization as a treatment option. Bilateral, ACE catheterization was carried out under local anesthesia at the level of the left Scarpa’s triangle, and showed a hypervascular area in the projection area of the posterior-superior wall of the nasal cavity, with arterial supply from the right sphenopalatine artery. Superselective catheterization of the right sphenopalatine artery was performed, followed by the injection of embolization particles until stasis and reflux of the contrast material were achieved. Catheterization of the left maxillary artery extended up to the pterygopalatine segment, but multiple attempts of superselective catheterization of the left sphenopalatine artery were unsuccessful due to marked tortuosity.

**RESULTS:** After embolization, the patient was supervised for 24 hours in the Neurosurgery department, without any bleeding after manual haemostasis, and transferred in the ENT clinic for gradual removal of the nasal packing. Nasal packing was completely removed after 2 days of hospitalization, without any active bleeding. The patient was discharged after 7 days in good condition, with recommendations.

**CONCLUSION:** Hypertensive posterior epistaxis can’t always be stopped with nasal packing. When antiplatelet drug treatment is associated with PTCA, transcatheter embolization can be a treatment option. Multidisciplinary approach must be considered for the best outcome.

**KEYWORDS:** epistaxis, embolization, sphenopalatine artery, antiplatelet drug

### (31) FRONTAL SINUS ONCOCYTIC PAPILLOMA – CASE REPORT

Ruxandra Marinescu<sup>1</sup>, Z.A. Abdul Amir<sup>1</sup>, Alina Anghel<sup>3</sup>, Roxana Andries<sup>1</sup>, Emma Balan<sup>1</sup>, Alina Copaci<sup>1</sup>, Minodora Matasaru<sup>1</sup>, I. Mghir<sup>1</sup>, Raluca Zachia<sup>1</sup>, M. Ziani<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Department, “Doctor Carol Davila” Central Emergency Military Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

<sup>3</sup>ENT Department, “Sf. Maria” Clinical Hospital, Bucharest, Romania

**INTRODUCTION:** The nose and the paranasal sinuses represent the place of origin of a complex group of tumors with a wide histological variety. Sinonasal papillomas represent a clinically important group for differential diagnostic. They are rare tumors, with an annual incidence of 0.6 cases per 1 million people. Sinonasal papillomas are divided in three subtypes according to their morphology: sinonasal exophytic papilloma, sinonasal

inverted papilloma and sinonasal oncocytic papilloma. Oncocytic papilloma is the less frequent of the three morphologically distinct papillomas, accounting for only 3% of all cases. It almost always occurs unilaterally, usually in the maxillary sinus, ethmoid cells or sphenoid sinus and it may be associated with malignancies.

**MATERIALS AND METHODS:** A 53-year-old female comes to the emergency room for right periorbital edema and palpebral ptosis accompanied by signs of inflammation, symptoms that started about 4 days prior. The patient is admitted to the ENT department of the “Carol Davila” Central Military Hospital for specialized medical and surgical treatment. The diagnosis was established with clinical examination of the patient completed with the results of imagistic studies, endoscopic examination and histopathological exam.

**RESULTS AND CONCLUSION:** Brain MRI revealed a pseudotumoral formation with a suggestive appearance for mucocele at the level of the right frontal sinus through a right ethmoidal nasal polyp. The radical cure of the right frontal sinus through an external approach is decided. A cystic mass and polypoid masses are highlighted, including at the level of the drainage pathway of the frontal sinus. Prevention of ostial obstruction is achieved by inserting a drain tube through the frontonasal duct, externalized at the level of the right nasal vestibule. The histopathological exam revealed: multiple polypoid fragments represented by sinus mucosa with tumor proliferation with an endo- and exophytic pattern consisting of round and cylindrical cells with oncocytic metaplasia. Oncocytic papilloma is a rare sinonasal tumor arising from the Schneiderian membrane, which only occurs in 3% out of the three subtypes of papillomas cases. It usually appears in the maxillary sinus and ethmoid cells, while few cases of frontal sinus oncocytic papilloma have been described in literature. Although it represents a benign tumor, it is characterised by aggressive local growth and significant malignant potential. Due to the possible recurrence and malignant potential, a consistent follow-up is important.

**KEYWORDS:** oncocytic papilloma, surgical excision, malignant potential.

### (32) FRONTAL SINUSITIS – ETIOPATHOGENIC, CLINICAL AND THERAPEUTIC FEATURES – CLINICAL STUDY

**Simina Pelin, T. Almasan, Alexandra Bonciu, Alina Cordunianu, G. Ganea, V. Necula, I. Anghel**

*ENT Clinic, Doctor “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania*

*“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania*

**INTRODUCTION:** Sinusitis is an inflammatory disease of the paranasal sinuses. Frontal sinusitis is a relatively rare pathology. Its etiology is unknown, but it is most frequently associated with bacterial, viral or fungal infections. The symptomatology of frontal sinusitis is characterized by pain at the frontal level, feeling of pressure at the level of the upper

cranial floor, chronic nasal obstruction and muco-purulent rhinorrhea on the same side. The positive diagnosis is established clinically, fiberoptically and with the help of the computer tomograph, an investigation that is required in the case of surgical treatment at this level. Frontal sinusitis benefits from both medical and surgical treatment. Regarding drug treatment, antibiotic therapy and topical or systemic corticosteroids are the choice for frontal sinusitis. The principle of standard surgical treatment is functional endoscopic surgery of the sinuses (FESS), an intervention that facilitates the drainage and ventilation of the sinus cavities.

**MATERIAL AND METHODS:** The statistical retrospective case study was carried out on a series of cases represented by 10 patients diagnosed and treated in the Otorhinolaryngology Clinic of the Central Military Emergency University Hospital Doctor “Carol Davila” between 1.06.2021 - 30.05.2023.

**RESULTS AND CONCLUSION:** The retrospective study included a number of 10 patients, representing only approximately 0.33% of the presentations from the emergency room of the hospital. The following were concluded: frontal sinusitis is more frequent in men (7 cases). All cases were associated with other types of sinusitis, most frequently ethmoidal and maxillary. The universal symptom was represented by chronic nasal obstruction and rhinorrhea. Out of the 10 cases, only 4 represented acute pathology of the frontal sinus, of which only one case required radical cure of the frontal sinus, the rest being treated by endoscopic functional surgery. The cases of chronic sinusitis were completely treated by endoscopic cure and treatment with antibiotherapy and corticosteroids in the form of aerosols.

**KEY WORDS:** frontal sinus, endoscopic surgery, principles of treatment.

### (33) IMPLICATIONS OF POST-TONSILLECTOMY DYSPHAGIA IN SINONASAL PATHOLOGY – CASE REPORT

**Csiszer Iren, Neagos Adriana, Copotoiu Sanda Maria**

*“George Emil Palade” University of Medicine, Pharmacy, Science, and Technology of Targu Mures, Romania*

**INTRODUCTION:** Velopharyngeal insufficiency is a rare complication after tonsillectomy, it involves impaired mobility of the velopharyngeal sphincter. This condition involves the appearance of some phoniatric complications such as dysphagia for liquids, phonation disorders and sinonasal inflammatory diseases.

**METHODS:** We present a case of a 38-year-old patient who, seven days after undergoing a tonsillectomy, developed dysphagia and velopharyngeal insufficiency with a progressive and persistent character, along with multiple complications that subsequently led to the appearance of loco-regional disorders.

**CONCLUSION:** Dysphagia secondary to post-tonsillectomy complicated with velopharyngeal insufficiency is rare. Surgical treatment is often required to address this condition, because, untreated, this pathology can lead to multiple complications and affect the quality of life.

### (34) LEADING SYMPTOMS IN PATIENTS WITH ALLERGIC RHINITIS AND OSA TREATMENT

Mario Milkov, Miroslav Stoykov, Silvena Baicheva, Stefan Peev  
*University Medical and Dental Center, Faculty of Dental Medicine, "Prof. Paraskev Stoyanov" Medical University, Varna, Bulgaria*

**PURPOSE OF THE PAPER:** Obstructive sleep apnea is a socially significant disease. Diagnosis and treatment are carried out by interdisciplinary teams. Allergic conditions are being diagnosed nowadays more often than in the past.

**MATERIAL AND METHODS:** 120 patients with proven symptoms of a disturbed sleep at night were thoroughly examined. Authors used polygraph analysis of sleep quantity and quality. Rhinomanometry was performed on the same patients as an additional investigation method. All patients had varying degrees of severity of obstructive sleep apnea symptoms. 20 patients required surgical septoplasty, and 57 patients required conchotomy and radiofrequency-induced thermotherapy.

**RESULTS:** It is interesting that 68 of all studied patients had a proven allergy condition. The in-depth analysis of the data from patients' conditions showed that there is a significant worsening of sleep apnea in allergic rhinitis patients. The patients who underwent surgery got an improvement, but, despite this, not a small part of them were offered CPAP-therapy and long-term treatment for the allergic condition.

**CONCLUSION:** Allergic rhinitis can aggravate the symptoms of OSA. Therefore, timely measures should be undertaken to cope with both conditions.

**KEYWORDS:** OSA, allergic rhinitis, OSA treatment.

### (35) LOBULAR CAPILLARY HEMANGIOMA OF THE NASAL SEPTUM: A CASE REPORT

Coadă Gabriella, Neagu Amalia

*ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania*

Lobular capillary hemangioma is a benign, rapidly growing lesion of the mucous membranes and skin, usually involving buccal mucosa, tongue, gingiva, lips. It is a rare location within the nasal cavity. We report a case of a 71-year-old man with epistaxis and left side nasal obstruction. Anterior rhinoscopy revealed a mass arising from the anterior septum. Excision under anterior rhinoscopy control was performed. A lobular capillary hemangioma was diagnosed based on the histopathology study. Although the specialized literature emphasizes the advantages of endoscopy in the excision of tumor formations located in the anterior portion of the nasal septum, the surgical team in this case report opted for anterior rhinoscopy because it offers easier control.

**KEYWORDS:** lobular capillary hemangioma, epistaxis, anterior rhinoscopy, nasal septum.

### (36) OSTEOMYELITIS OF THE SKULL BASE

Petronela Moraru, Gilda Danis, Marcela Sarjin, Vlad Cozma, Luminita Radulescu

*"Grigore T. Popa" University of Medicine and Pharmacy, Iasi, Romania*

Malignant otitis externa is one of the causes of osteomyelitis

of the skull base. Patients with all forms of immunosuppression are a vulnerable category.

We present the case of a 70-year-old diabetic patient, poorly controlled with medication, with multiple cardiovascular pathologies, who mainly complained of left facial paresis, hearing loss and cachexia, and who, based on CT, was misdiagnosed with nasopharyngeal cancer. The biopsy from the lateral wall of the nasopharynx did not confirm malignancy. The patient was referred to our clinic. The clinical examination raised the suspicion of malignant otitis externa and specific treatment was started. We requested a second opinion on the CT exam. A further CT scan with intravenous contrast and an MRI were recommended and again the patient was diagnosed with nasopharyngeal cancer with skull base involvement. The biopsy from the nasopharynx was repeated, the histopathological result again excluded the presence of a neoplastic process. The neurosurgeon confirmed the tumor diagnosis. A third opinion was sought for CT and MRI – which finally confirmed the diagnosis of malignant otitis externa.

Meanwhile the patient was treated for malignant otitis externa.

The evolution showed slow improvement. After 4 months, the patient returned to our service for bilateral deafness and right facial paresis, emphasizing the progressively invasive nature of this pathology.

Malignant otitis externa is a pathology that still presents difficulties both in diagnosis and in establishing a therapeutic course, with possibly fatal evolution despite adequate antibiotic treatment. Keeping the disease under control requires long-term monitoring, strict glycemic control in combination with antibiotic treatment.

**KEYWORDS:** osteitis, skull base.

### (37) PARANASAL SINUS AND NASAL CAVITY CANCER EXTENDED INTO ORBIT – CASE REPORT

Laura Vasilescu<sup>1</sup>, T. Almasan<sup>1</sup>, Z. A. Abdul Amir<sup>1</sup>, Roxana Andries<sup>1</sup>, Marta Anghel<sup>1</sup>, Emma Balan<sup>1</sup>, Alexandra Bonciu<sup>1</sup>, Andra Constantinescu<sup>1</sup>, Alina Copaci<sup>1</sup>, Alina Cordunianu<sup>1</sup>, Simona Croitoru<sup>1</sup>, Denisa Nicoleta Dumitru<sup>1</sup>, Ruxandra Marinescu<sup>1</sup>, Miruna Mateescu<sup>1</sup>, Minodora Matasaru<sup>1</sup>, I.R. Mghir<sup>1</sup>, V. Necula<sup>1</sup>, Simina Pelin<sup>1</sup>, Alina Petre<sup>1</sup>, Raluca Zachia<sup>1</sup>, M. Ziani<sup>1</sup>, G. Ganea<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>*ENT Clinical Department, "Carol Davila" Central Military Emergency University Hospital, Bucharest, Romania*

<sup>2</sup>*"Carol Davila" University of medicine and Pharmacy, Bucharest, Romania*

**INTRODUCTION:** Paranasal sinus and nasal cavity cancer is a rare form of malignancy that occurs in less than 1% of all malignancies and roughly 3% of head and neck cancers, yet represents a major complication in adults. Sinonasal malignant tumors predominantly affect males in the 5th to 7th decades and frequently originate in the maxillary sinuses, followed by the nasal cavity, ethmoid sinuses and the frontal or sphenoid sinuses. This paper aims to report in detail the clinical evaluation, surgical technique and postoperative fol-

low-up of a patient with right maxillary and ethmoid sinus squamous cell carcinoma extended to the right orbit.

**CASE PRESENTATION:** A 66-year-old female is admitted to the ENT department for nasal obstruction, temporo-frontal algia and diplopia for 1 year and aggravated in the last month. On clinical examination, periorbital cellulitis affecting predominantly the right eye was spotted. The nasal cavity was completely obstructed by nasal polyps. Cranio-cerebral MRI was performed resulting in space substituting tumoral mass with approximately 6,5/3.4 cm axial dimensions, centered at the superior ethmoid cells. The tumoral mass was spreading to the frontal sinuses, the orbits, invading the internal rectus muscles bilaterally, with apparent extension to the left intraconal space, left maxillary sinus and the left compartment of the sphenoid sinus. Bilateral ethmoidotomy with excision of a tumoral mass from the right ethmoid sinus was performed, and the pathological piece along with the right middle turbinate remains were excised. Bilateral endoscopic maxillary antrostomy with excision of a tumoral mass from the right maxillary sinus was performed. Right radical antrostomy was then performed with the curettage of the remained macroscopically modified sinus mucosa. The orbital floor was inspected without signs of discontinuance or herniation of the orbital content into the sinus.

**RESULTS:** The histopathological examination revealed ulcerated, non-keratinized squamous cell carcinoma, invasive in the osseous structures of the right maxillary and ethmoid sinus. After discharge, the patient was advised to undergo quarterly endoscopic examinations during the first 2 years, a craniocerebral MRI 3 months postoperatively, and radiotherapy sessions.

**CONCLUSION:** The localization and dimensions of the sinuses influence the complexity and evolution of the tumoral masses, making them locally aggressive. Depending on the clinical behaviour, access to the sinuses, extension of the tumoral mass and histological type, the management of the sinonasal malignancy may require a multidisciplinary approach.

**KEYWORDS:** squamous cell carcinoma, maxillary sinus, ethmoid sinus, radiotherapy, multidisciplinary approach.

### **(38) CHALLENGES AND TREATMENT STRATEGIES FOR CHRONIC RHINOSINUSITIS WITH NASAL POLYPS IN A 47-YEAR-OLD PATIENT WITH WIDAL'S TRIAD**

Alina Mihaela Barna<sup>1</sup>, Bianca Rusu<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Chronic rhinosinusitis with nasal polyps (CRSwNP) is a debilitating condition characterized by persistent inflammation of the paranasal sinuses and the presence of polypoid growths in the nasal cavity. This abstract focuses on the challenges and treatment strategies specifically for a 47-year-old patient

with CRSwNP and Widal's Triad, which includes asthma, aspirin sensitivity and nasal polyps.

**MATERIAL AND METHODS:** We present the case of a 47-year-old patient with a history of asthma exacerbations, nasal polyps and aspirin sensitivity. The patient presented to our hospital with recurrent symptoms of rhinorrhea, nasal congestion, facial pain, absent sense of smell and impaired quality of life. The clinical examination, nasal endoscopy and imaging studies confirmed the diagnosis of chronic rhinosinusitis with nasal polyps.

**RESULTS:** The treatment strategies for CRSwNP in this patient involved a comprehensive and multidisciplinary approach. Medical management typically includes intranasal corticosteroids, saline irrigations and antibiotics in case of acute exacerbations or infections. Due to the severity of the condition and the presence of Widal's Triad, a surgical intervention may be necessary. Endoscopic sinus surgery aims to remove polyps, open blocked sinuses and promote adequate drainage. In some cases, biologics such as interleukin-4 receptor alpha (IL-4Ra) or interleukin-5 (IL-5) may be considered to further control the underlying inflammatory process. The patient's asthma should be closely monitored and managed in collaboration with a pulmonologist.

**CONCLUSION:** The management of CRSwNP in a patient with Widal's Triad poses several challenges. A comprehensive treatment approach involving both medical and surgical interventions, along with appropriate postoperative care, is necessary to alleviate symptoms, reduce polyps burden and improve the patient's overall quality of life. Collaborative efforts between otolaryngologists, pulmonologists and allergists are essential to optimize the treatment outcomes for these patients.

**KEYWORDS:** Widal's triad, chronic rhinosinusitis, nasal polyps.

### **(39) SURGICAL MANAGEMENT OF ODONTOGENIC MAXILLARY SINUSITIS IN THE INFANT**

Ivan A., Nicolau A., Stingheriu A., Doina M., Cozma V., Martu D., Guma C., Radulescu L., Martu C.

"Grigore T. Popa" University of Medicine and Pharmacy, Iasi, Romania

Clinical Rehabilitation Hospital, Iasi, Romania

Odontogenic maxillary sinusitis represents the inflammation of the maxillary sinus mucosa, most often caused by dental infections. The maxillary sinus is located laterally, at the base of the inferior nasal turbinate between 10 days and 1 year. The paper presents the case of a 1-year-old patient with unilateral maxillary and ethmoidal sinusitis complicated with genian abscess. The preoperative CT showed right maxillary and ethmoidal sinusitis with osteolytic lesions of the medial wall of the right maxillary sinus and right lamina papyracea, and right genian abscess.

Functional endoscopic sinus surgery was performed, including right maxillary antrostomy, right anterior and posterior ethmoidectomy and drainage of the genian abscess through the vestibule, near the upper right lat-

eral incisor. The relapse of the abscess after cessation of antibiotic therapy, with normal rhino-sinus endoscopic examination required the re-evaluation of the anterior wall of the maxilla. An old dental fracture trajectory was objectified, caused by a possible trauma, and a periapical osteitis process was identified. The surgical removal of the dental remains and the osteitis process resolved the problem.

The particularities of paranasal sinuses development in children are important and can be discussed in relation to dental problems, and require the identification of the primary cause for effective surgical treatment and the prevention of complications or relapse.

**KEYWORDS:** maxillary fracture, maxillary sinusitis, tooth bud, genian abscess.

#### (40) SUBDURAL EMPYEM PARAFALCIN COMPLICATION OF ETHMOIDAL SINUSITIS

Ivan A., Guma C., Stingheriu A., Cozma V., Martu D., Piftor I., Andrioaie N., Radulescu L., Martu C.

“Grigore T. Popa” University of Medicine and Pharmacy, Iasi, Romania

Clinical Rehabilitation Hospital, Iasi, Romania

Bacterial sinusitis is common in the pediatric population and in some cases can evolve with intracranial complications. In children, a serious complication with a poor prognosis is subdural empyema. Frontal sinusitis is the most common place of origin due to the abundant vascularization and rudimentary state of the sinuses, which favour hematogenous dissemination or dissemination through continuity. The case of a 10-year-old patient is presented, with emergency presentation from a Neurosurgery department, with the suspicion of pansinusitis with intracranial complication and septic encephalopathy. The CT and MRI examinations revealed acute rhinopansinusitis, almost completely obstructive on the right side, right fronto-parietal epicranial subcutaneous edema, frontal subdural collection (supraorbital) and parafalcine on the right side. FESS surgery was performed with sinus drainage, evacuation of abscesses and removal of osteitic foci, with favourable postoperative evolution. In the Department of Neurosurgery, a craniotomy was performed with drainage of the purulent content. Favourable follow-up was noted after surgery and at 1 and 6 months.

The pathogenesis of rhinogenic empyema is considered to be the retrograde spread of the infection through the emissive veins or through continuity following the osteitis of the infected sinuses. The risk of intracranial collections increases when there is osteitis at the level of the frontal sinus. With the help of adequate treatment and a high degree of vigilance, a correct and quick diagnosis can be established, and early investigations and adequate surgical treatment can avoid the tragedy of long-term neurological sequelae that can occur or even death.

**KEYWORDS:** complicated sinusitis, subdural empyema, child.

#### (41) SINONASAL POLYP WITH AN UNUSUAL PRESENTATION – CASE REPORT

Stingheriu A., Ivan A., Cozma V., Martu D., Margineanu D., Radulescu L., Martu C.

“Grigore T. Popa” University of Medicine and Pharmacy, Iasi, Romania

Clinical Rehabilitation Hospital, Iasi, Romania

Unilateral tumours of the nasal cavity can have multiple causes, sometimes discovered accidentally in a clinical examination or during a radiological examination. Although it can be considered an easily addressed pathology from the surgical viewpoint, the differential diagnoses offer a varied panoply, which requires further investigation. We discuss the case of a 71-year-old patient, hospitalized in the ENT clinic of the Iași Rehabilitation Hospital, who presents with bilateral nasal obstruction, more pronounced on the right side, and intermittent headache. During the clinical examination, a single, unilateral nasal tumour, with an apparent starting point from the middle meatus – ethmoid, is objectified. Because of the headache that the patient accuses, sinusitis is suspected, and a CT scan and surgery are recommended. The imaging evaluation reveals an anterior cerebral fossa mass and an MRI scan is also performed. The surprise finding offers a new course of diagnostic and therapeutic strategy. A unilateral sinonasal tumour can be an easy approach for the specialist doctor with training in the endoscopic surgery, but it requires a high degree of clinical suspicion and an appropriate pre-operative evaluation, considering the multitude of differential diagnoses, with many different ways of management.

**KEYWORDS:** sinonasal tumour, unilateral nose obstruction, headache, polyps.

#### (42) CHALLENGES AND PITFALLS IN THE DIFFERENTIAL DIAGNOSIS OF THE LATERAL NECK MASSES

Bianca Rusu<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, “Sfanta Maria” Hospital, Bucharest, Romania

<sup>2</sup>“Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**PURPOSE OF THE PAPER:** Neck masses are a common finding in the practice of an ENT specialist. They represent a challenge regarding the diagnosis, as they can appear in a wide variety of diseases. The purpose of this paper is to present the characteristics of lateral neck masses, in order to better differentiate them, and give an accurate diagnosis.

**MATERIAL AND METHODS:** We reported a case series of lateral neck masses with various etiologies, in an attempt to emphasize the dissimilarities among them and give the most precise diagnosis. We evaluated them based on their clinical and imagistic aspect, for a better and exhaustive approach. The initial evaluation begins with a thorough inquiry into the patient’s medical history, followed by a rigorous clinical examination of the neck region. Imagistic findings contribute to the overall understanding of each disease, but the definitive diagnosis is based on histopathology.

**RESULTS:** In the evaluation of a neck nodes, the imagistic



findings are of utmost importance. The most useful investigations are the ultrasonography, contrast enhanced computed tomography (CECT) and magnetic resonance imaging.

**CONCLUSION:** Although each neck mass has some unique features that differentiate it from others, giving a clear-cut diagnosis remains a challenge.

**KEYWORDS:** lateral neck mass, neck lump, adenopathy.

#### (43) UNDIFFERENTIATED NASOPHARYNGEAL CARCINOMA

Sandra-Maria Camburu<sup>1</sup>, Ionut Tanase<sup>1,2</sup>

<sup>1</sup>ENT&HNS Clinical Department, "Sfanta Maria" Clinical Hospital, Bucharest, Romania

<sup>2</sup>CESITO Center, "Sfanta Maria" Clinical Hospital, Bucharest, Romania

**PURPOSE:** To evaluate the clinical, paraclinical and anatomopathological characteristics of undifferentiated non-keratinizing nasopharyngeal carcinoma (NPC).

**MATERIAL AND METHODS:** Nasopharyngeal carcinoma is the most common type of malignancy originating in the nasopharynx, the most frequent sites being in the postero-lateral wall or pharyngeal recess (Rosenmuller fossa). Early signs and symptoms are varied and non-specific, 70% of newly diagnosed patients are in an advanced tumoral stage. The first signs of nasopharyngeal carcinoma may appear as latero-cervical nodes invasion, chronic nasal obstruction, unilateral epistaxis, recurrent unilateral chronic serous otitis media or neurological signs. We present the clinical case of a 77-year-old patient who addressed to our clinic for bilateral chronic nasal obstruction, left latero-cervical mass, left hearing loss, dysphonia and odynophagia, old symptoms that worsen over the last year.

**RESULTS:** The nasal endoscopy revealed a tumor located in the nasopharynx. In order to establish the diagnosis, an endoscopic-guided biopsy from the tumor was done. The histopathological examination set the diagnosis of undifferentiated nasopharyngeal carcinoma.

**CONCLUSION:** Clinical features of nasopharyngeal carcinoma are non-specific and make this condition difficult to diagnose in an incipient phase. Three different histopathological types have been identified by the World Health Organization (type 1: squamous cell carcinoma; type 2: non-keratinizing carcinoma; type 3: undifferentiated carcinoma). Postoperative radiotherapy is the key in improving the prognosis.

**KEYWORDS:** nasopharyngeal carcinoma, nasal obstruction, biopsy.

#### (44) WOAKES' SYNDROME – CASE REPORT AND SYSTEMATIC REVIEW

Maria-Delia Florean<sup>1</sup>, Veronica Trombitas<sup>1,2</sup>, Anda Gata<sup>1</sup>, Silviu Albu<sup>1,2</sup>

<sup>1</sup>CF Clinical Hospital Cluj-Napoca, Department of Otolaryngology, Cluj-Napoca, Romania

<sup>2</sup>"Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

**BACKGROUND:** Woakes' syndrome is a very rare entity, defined as severe recurrent nasal polyposis with broadening of the nasal pyramid, causing pseudohypertelorism, frontal sinus aplasia, bronchiectasis and dyscrinia. Few cases of Woakes' syndrome have been reported in adults, and the etiology is poorly understood. This paper reviews the diagnosis and management of Woakes' syndrome by describing a clinical case in the light of current literature.

**MATERIAL AND METHODS:** We report the case of an 86-year-old male, with controlled asthma and recurrent nasal polyposis, who was admitted in our ENT department with deformity of the nasal pyramid, nasal obstruction and anosmia. The examination data, surgical procedures and follow-up periods were analysed. A systematic review of the literature was performed using 13 articles reporting different options of management in Woakes' syndrome patients.

**RESULTS:** The ENT exam revealed grade IV nasal polyps with nasal bone deformation, and the Lund-Mackey CT score at admission was 12. We performed functional endoscopic sinus surgery of the nasal polyposis, followed by nasal corticosteroid therapy and digital compression without osteotomies for the deformity of the nasal pyramid, this method being preferred by many authors instead of rhinoplasty. In the follow-up period, we observed that the rate of recurrence decreased and the syndrome slowed down.

**CONCLUSION:** The particularity of the case represents the old age of this patient at first diagnosis. Even if it is rarely seen and the etiopathogenesis remains unclear, Woakes' syndrome should not be forgotten among diseases with nasal polyps.

**KEYWORDS:** Woakes' syndrome, nasal polyposis, deformity of nasal pyramid, endoscopic sinus surgery.

#### (45) STRUCTURAL PRESERVATION RHINOPLASTY

Ion Anghel

ENT Clinic, Doctor "Carol Davila" Central Military Emergency University Hospital, Bucharest, Romania

"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Structural preservation rhinoplasty merges two popular philosophies of rhinoplasty – structure rhinoplasty and preservation rhinoplasty – in an effort to maximize patient outcomes, aesthetics, and function.

Structure rhinoplasty was first introduced in 1989 by Johnson and Toriumi when Open Structure Rhinoplasty was published, describing the use of structural grafting to support the nasal structures by means of the open rhinoplasty approach. The term "preservation rhinoplasty" was introduced by Rollin K. Daniel and the philosophy focused on "preservation" of as much of the native nasal structure as possible. The early innovators of the dorsal preservation techniques were Goodale in 1898 and Lothrop in 1914. Yves Saban is the primary person responsible for the resurgence of dorsal preservation in this era.

**MATERIAL AND METHODS:** Our study comprises 100 cases with primary rhinoplasty: 50 cases with structure rhinoplasty

and 50 cases with preservation rhinoplasty.

**RESULTS AND CONCLUSION:** Structural preservation rhinoplasty is a hybrid approach for primary rhinoplasty patient. Dorsal preservation techniques can be used on the nasal dorsum. Structure rhinoplasty can be used in the lower third of the nose. The advantages of dorsal preservation over the Joseph method include the following: preserving the favourable attributes of the nose on frontal view; reducing the need for spreader grafts and spreader flaps (resulting in no middle vault reconstruction); decreasing the number of cartilage grafts used; and facilitating more rapid healing of the upper two-thirds of the nose. From an aesthetic point of view, there is less likelihood of creating excessive width or collapse of the middle vault and nasal bone deformities.

**KEYWORDS:** structural rhinoplasty, preservation rhinoplasty, structural preservation rhinoplasty.

#### (46) THE DIAGNOSIS AND TREATMENT OF THE SEPTAL HEMATOMA: CASE REPORT

Odeh Ahmad<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** A septal hematoma is when blood collects in the area of your nose between your nostrils, called the septum. Usually, some kind of injury disrupts the blood vessels and pulls the lining away from the cartilage, allowing blood to collect between the two; the blood leaks from the injured blood vessels into the surrounding tissue and causes pressure, pain, and bruising. This scientific paper aims to help diagnose and treat a septal hematoma in the fastest and most efficient way possible with minimalizing further complications.

**MATERIAL AND METHODS:** We present you a case of a 38-year-old male with symptoms of blockage in breathing, nasal congestion, painful swelling of the nasal septum and change in the shape of the nose. The dark blue patch of skin and the asymmetry of the septum observed in the clinical examination combined with the CT scan confirmed our diagnosis.

**RESULTS:** Septal hematomas tend not to heal on their own and need to be drained promptly in most cases. A small Penrose drain is placed into the opened hematoma cavity and secured with a suture. The nose is packed on both sides to prevent the re-accumulation of blood. Systemic antibiotics are prescribed to prevent serious, infective complications.

**CONCLUSION:** This case study involves a prompt evaluation of the clinical presentation, diagnosis approach and treatment strategies for the septal hematoma in order to reduce future complications, such as fever, septal abscess, nasal bleeding, collapse of the area involved causing a saddle nose deformity, perforation of the nasal septum and others.

**KEYWORDS:** septal hematoma, blockage in breathing, incision.

#### (47) THE MANAGEMENT OF LATE DIAGNOSED CHOANAL ATRESIA

Andra-Monica Teodoreanu<sup>1</sup>, Codrut Sarafoleanu<sup>1,2</sup>

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

**THE PURPOSE OF THE PAPER:** Choanal atresia is a rare congenital disorder characterized by the complete or partial blockage of the posterior nasal passage. Although typically diagnosed in infants, there are also rare cases of diagnosis in adults. This scientific paper attempts to present the management of a 26-year-old patient recently diagnosed with choanal atresia.

**MATERIAL AND METHODS:** We report a case of a 26-year-old patient who presented to our clinic with symptoms of unilateral nasal obstruction. The clinical examination and nasal endoscopy confirmed the diagnosis of right choanal atresia. We discuss the clinical presentation, diagnostic challenges, management options and outcomes of this case.

**RESULTS:** The treatment purpose was nasal passage permeabilization by transnasal endoscopic surgery. Even though no mentor was placed, the results were satisfying both in the short and long term, with the opening remaining at a functional respiratory size.

**CONCLUSION:** The discovery of choanal atresia in adults is an exceptionally rare situation; its diagnosis and management can be challenging for otolaryngologists. This case emphasizes the importance of considering choanal atresia as a differential diagnosis in adult patients presenting with symptoms of nasal obstruction. Timely diagnosis and appropriate surgical intervention can significantly improve the patient's quality of life.

**KEYWORDS:** choanal atresia, nasal obstruction, surgical management, endoscopic surgery.

#### (48) UNILATERAL CONGENITAL CHOANAL ATRESIA – CLINICAL CASE

Iatentiuc Iustin, Stan Andreea, Bisog Lavinia, Hortolomei Maria, Cavaleriu Bogdan

Clinical Rehabilitation Hospital, Iasi, Romania

**AIM:** To report a case of unilateral choanal atresia diagnosed in a 15-year-old boy. Congenital choanal atresia is an uncommon developmental anomaly with a reported incidence ranging from 1 in 7000 to 1 in 5000 live births. Unilateral cases are twice as frequent as bilateral cases. Unilateral choanal atresia rarely causes acute respiratory distress and may remain undetected until later in life.

**MATERIAL AND METHODS:** A young patient, 15-year-old male presented with unilateral permanent nasal obstruction and mucopurulent discharge from the right nasal cavity. The endoscopic examination revealed the right nasal fossa completely blocked and a computed tomography scan showed a right choanal obstruction. The patient was treated by transnasal endoscopic surgical technique associated with transeptal access, and choanal stenting for 3 months.

**RESULTS:** The patient showed adequate patency at 6 months, with regression of the symptoms. Nasal endoscopy and CT scan are the gold standard for the diagnosis.

**CONCLUSION:** Congenital unilateral choanal atresia can be undiagnosed until adulthood due to the nonspecific nature of the symptoms. This diagnosis should be, therefore, considered in all ages, and we want to highlight the importance of a detailed clinical history and physical examination for an accurate diagnosis.

**KEYWORDS:** choanal atresia, endoscopy, surgery.

#### (49) CRANIOFACIAL FIBROUS DYSPLASIA ASSOCIATED WITH CHRONIC RHINOSINUSITIS AND STENOTROPHOMONAS MALTOPHILIA INFECTION – CASE REPORT

V. Necula<sup>1</sup>, Alina Cordonianu<sup>1</sup>, A. Bonciu<sup>1</sup>, T. Almasan<sup>1</sup>, Simina Pelin<sup>1</sup>, M. Ionescu<sup>3</sup>, C. Dumitru<sup>3</sup>, G. Ganea<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinical Department, “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>ENT Discipline, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

<sup>3</sup>Oral and Maxillofacial Surgery Clinical Section, “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

**INTRODUCTION:** Fibrous dysplasia is a rare benign tumor of the sinonasal tract. It is based on the abnormal development of the bone-forming mesenchyme, that transforms normal bony tissue into a fibrous one. This fibrous tissue exhibits variable cellularity and immature bone with absent osteoblastic activity. The management of this pathology is difficult due to the variability of presentation forms and progression. *Stenotrophomonas maltophilia* is a Gram-negative bacterium, aerobic, non-fermentative, that is a multidrug-resistant opportunistic, difficult-to-treat pathogen. This pathogen is related to the *Pseudomonas* species.

**MATERIAL AND METHODS:** This case report describes the diagnosis and the treatment challenges in an adult patient diagnosed with Frontal fibrous dysplasia with Chronic Rhinosinusitis and orbital involvement and associated infection with *S. maltophilia*. The patient was referred to our ENT clinic after neurologic and plastic surgical consultation for chronic frontal and sino-palpebral fistula suppuration and frontal bone lesion found in the imaging studies (MRI and CT). Pre-operatively, antibiotic therapy was given after the confirmation of the *S. maltophilia* presence.

**RESULTS AND CONCLUSION:** The elected treatment of the fibrous dysplasia was a multidisciplinary team surgery, with a combined approach, and consisted of: radical resection of the frontal tumor, frontal sinusotomy and anterior table reconstruction with titanium microplates and screws. The fistulas were successfully closed and the patient was cosmetically rehabilitated with no further complications. This case shows the importance of tailored management of the patient even

in benign tumors associated with bacterial infections, which in the absence of an adequate treatment can lead to intricate evolution with long-term deficits and associated complications.

**KEYWORDS:** *Stenotrophomonas maltophilia* infection, craniofacial fibrous dysplasia, rhinosinusitis.

#### (50) ETIOPATHOGENIC, CLINICAL AND THERAPEUTIC FEATURES OF NASAL SEPTAL DEVIATION

V. Necula<sup>1</sup>, Alina Cordonianu<sup>1</sup>, A. Bonciu<sup>1</sup>, T. Almasan<sup>1</sup>, Simina Pelin<sup>1</sup>, G. Ganea<sup>1</sup>, I. Anghel<sup>1,2</sup>

<sup>1</sup>ENT Clinical Department, “Carol Davila” Central Military Emergency University Hospital, Bucharest, Romania

<sup>2</sup>ENT Discipline, “Carol Davila” University of Medicine and Pharmacy, Bucharest, Romania

**INTRODUCTION:** Nasal septal deviation is a frequently encountered condition in ENT practice, being characterised by a frontal and sagittal deformation of the nasal septum, involving disturbances in the nose physiological functions. Nasal trauma is the main cause of nasal septal deviation, but it can also be the consequence of nasosinus conditions such as nasal polyposis, benign or malignant tumours, craniofacial malformations. Patients with deviated nasal septum usually present to the ENT department for other rhinological conditions such as sinusitis, allergic rhinitis, sleep apnea syndrome or nasal trauma. The main symptom is nasal obstruction that does not improve following decongestant therapy; the degree of obstruction is variable and may involve one or both nostrils. The clinical diagnosis of nasal septal deviation is established following direct examination of the septum by anterior rhinoscopy or nasal endoscopy, whereas a paraclinical diagnosis is not routinely required, which is why patients often learn of this diagnosis following cranial imaging investigations for other conditions. Septoplasty is one of the surgical procedures used to correct the deviated nasal septum.

**MATERIAL AND METHODS:** Retrospective statistical case study conducted on a group of 501 patients diagnosed and operated in the ENT clinic of the Central Military Emergency University Hospital “Carol Davila”, between 01.01.2022 and 31.12.2022.

**RESULTS AND CONCLUSION:** The retrospective study included 501 patients, from which the following conclusions were drawn: nasal septal deviation is more common in male patients (59.08% male vs. 40.92% female of the total number of presentations). Post-traumatic nasal septal deviation was seen in 25.95% of the total number of presentations and was more common in male patients (59.23% male vs. 40.77% female of the total number of presentations). The universal symptom was nasal obstruction (90%), followed by snoring (48%), sleep apnea (15%), headache (10%). All cases of nasal septum deviation were surgically corrected by septoplasty.

**KEYWORDS:** nasal septum deviation, nasal trauma, septoplasty.

## (51) FROM INTERNATIONAL STANDARDS TO ROMANIAN PRACTICE IN THE TREATMENT OF NASOPHARYNGEAL CANCER

Renata Zahu<sup>1,4</sup>, Magdalena Chirila<sup>2</sup>, Manuela Lenghel<sup>3</sup>, Vlad Manolescu<sup>4</sup>

<sup>1</sup>Department of Oncology and Radiotherapy, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

<sup>2</sup>Otorhinolaryngology Department, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

<sup>3</sup>Department of Radiology, Faculty of Medicine, "Iuliu Hatieganu" University of Medicine and Pharmacy, Cluj-Napoca, Romania

<sup>4</sup>Amethyst Radiotherapy Center Cluj, Floresti, Cluj-Napoca, Romania

**INTRODUCTION:** Nasopharyngeal cancer is endemic in southeast Asia and in northern and eastern Africa. Surprisingly, Romania has the highest incidence in Europe, with more than 400 new cases per year according to the Glocan data. The treatment is mainly multimodal with radiotherapy and chemotherapy, surgery being reserved only for salvage. The widespread application of intensity-modulated radiotherapy offers a better therapeutic ratio with fewer long-term side effects, which is of utmost importance, since nasopharyngeal cancer affects mainly young patients.

**MATERIAL AND METHODS:** Our aim is to present a short overview of the international treatment standards for each stage, to highlight the imaging requirements for correct treatment decisions and to offer some insights in the management of relapsed cases.

**RESULTS:** We carefully selected clinical cases from our practice and will discuss staging procedures, treatment decisions in the multidisciplinary team meeting, the particularity of each case and outcome.

**CONCLUSION:** The majority of patients present with locally advanced nasopharyngeal cancer but, despite this, 60% of them can achieve cure with correct treatment. The need to identify novel biomarkers to facilitate more effective and less toxic therapy tailored for individual patients in the future is needed.

## (52) JUVENILE ANGIOFIBROMA

Jan Plzák

Faculty Hospital Motol, Prague, Czech Republic

**INTRODUCTION:** Juvenile angiofibroma (JA) is a benign aggressive tumor that tends to bleed, which arises from the superior margin of the sphenopalatine foramen and grows in the posterior part of the nasal cavity of prepubertal and adolescent males.

The aim of the treatment is complete surgical resection with acceptable morbidity.

Magnetic resonance imaging (MRI) is indicated to define the extent of the tumor.

Angiography of bilateral carotid systems should be routinely performed preoperatively. Preoperative embolisation of tumour may be of some use in reducing intraoperative bleeding.

Intranasal endoscopic surgery is a frequently used surgical

approach recently, even for advanced tumors.

Endoscopic approach is an excellent tool in primary and recurrent JA, it allows visualisation and precise removal of the lesion.

**OBJECTIVES:** The aim of the treatment is complete surgical resection with acceptable morbidity.

**METHODS:** Magnetic resonance imaging (MRI) is indicated to define the extent of the tumor.

Angiography of bilateral carotid systems should be routinely performed preoperatively. Preoperative embolisation of the tumour may be of some use in reducing intraoperative bleeding.

**RESULTS:** Intranasal endoscopic surgery is a frequently used surgical approach recently, even for advanced tumors.

**CONCLUSION:** The endoscopic approach is an excellent tool in primary and recurrent JA; it allows visualisation and precise removal of the lesion.

## (53) CERVICOGENIC VERTIGO, A CONTROVERSIAL CLINICAL ENTITY

Gabriela Musat

"Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

ENT&HNS Department, "Sfanta Maria" Hospital, Bucharest, Romania

**BACKGROUND:** Dizziness and vertigo are common motives of consultations in adult patients. There are many causes generating dizziness and vertigo. The differential diagnosis involves a complex approach, and the possibility that such a pathology might be generated at the cervical level should be considered. Cervicogenic vertigo has advocates and opponents in the medical community, leading to controversies.

**OBJECTIVES:** To identify and evaluate the most important pathophysiological theories explaining the cervicogenic vertigo and dizziness and to define the cervical vertigo as a disease or a clinico-pathological entity.

**METHODS:** Literature review.

**RESULTS:** The most important theories that are accepted with the aim of explaining cervicogenic vertigo are the proprioceptive theory, the rotational vertebral artery syndrome (Bow-Hunter syndrome), and the sympathetic cervical syndrome (Barre-Lieou syndrome). The most appropriate approach to diagnose cervicogenic vertigo seems to be correlating the symptoms of vertigo/dizziness and imbalance with neck pain and excluding other causes.

**CONCLUSION:** There are patients with concomitant existence of vertigo/dizziness and neck symptoms in which a clinician may suspect a causal relationship. There are no epidemiological studies and there is no consensus regarding this clinical entity. Unfortunately, we do not have a test to confirm the disease, so it is a diagnosis of exclusion. The most accepted pathophysiological mechanism is the proprioceptive mismatch. Physical therapy for the neck is the most efficient treatment for cervicogenic vertigo and dizziness.

#### (54) BEYOND APNEA-HYPOPNEA INDEX: HOW SYMPTOMATOLOGY AND COMORBIDITY ARE IMPORTANT IN OSAS

**Raluca Enache**

*ENT Sarafoleanu Medical Clinic, Bucharest, Romania*

**BACKGROUND:** Sleep apnea syndrome (OSAS) is a heterogeneous and complex disease, with different physiopathological phenotypes, being a diagnosis and treatment challenge. The most used parameter to define and classify the severity of OSAS is the apnea-hypopnea index (AHI), with less focus on patients' symptoms and comorbidities.

**OBJECTIVES:** To highlight the importance of symptomatology and comorbidity in the assessment of patients with sleep apnea.

**METHODS:** The review summarises the data found in the literature, presenting the OSAS phenotypes, the association between comorbidities and sleep apnea and their interaction mechanisms, emphasising the utility of a multicomponent grading system for OSA severity. Also, the author presents the results of a study which evaluates new diagnostic systems proposed for identifying sleep apnea sufferers.

**RESULTS:** The scientific interest in the role which comorbidities play in OSA has grown in the last decade. Many studies report a high prevalence of comorbidities in OSA patients, identifying that almost 80% of patients with sleep apnea can present multiple associated diseases, the mortality risk being directly associated with the comorbidity score and less with the AHI severity. Personal experience showed that the addition of the breathing disturbance severity to the classification of OSA was not a prediction factor for symptoms or comorbidities in sleep apnea sufferers.

**CONCLUSION:** Comorbidities are frequent in patients with OSAS and represent a marker for a high mortality risk. The diagnosis and treatment of sleep apnea patients should be based on symptoms, comorbidities and sleep studies results, and not only on AHI.

#### (55) ORBITO-OCULAR COMPLICATIONS OF SINUSITIS

**N. Balica, Stefanescu H., Mot I.C., Horhat D.I.**

*ENT Department, "Victor Babes" University of Medicine and Pharmacy, Timisoara, Romania*

**INTRODUCTION:** Orbital complications are most often caused by acute ethmoiditis: (1) periorbital (or preseptal) cellulitis, (2) subperiosteal abscess, (3) orbital abscess, (4) orbital cellulitis and (5) cavernous sinus thrombosis.

**CASE PRESENTATION:** V.G., 22 years old, background: rural. Diagnosis: Left fronto-ethmoid-maxillary sinusitis. Contrast enhancement MRI exam: Left paranasal sinuses with thickened mucosa, with gadophilic, irregular wall. Left orbital cellulitis, Left exophthalmos, Edema in the right superior and right lateral muscles, Fluid accumulation in the left inferior palpebra, Left fronto-basal subdural empyema. Contrast enhancement CT exam: Marked circumferential thickening of the mucosa lining the left

maxillary sinus, with accumulation of liquid with parafluid and hematic density, Similar aspect is visualized at the level of the left ethmoid cells, the left nasal fossa and the frontal sinus, Bone discontinuity on the maximum 12 mm at the level of the medial wall of the left maxillary sinus, presenting a wide communication with the left ethmoid sinus, Parafluid collection, at the left upper eyelid level and in the left intraorbital region, extrachanoal, with a slightly irregular wall, post-contrast uptake, imaging appearance of intraorbital abscess. Left exophthalmos.

An external ethmoidectomy and drainage of the retroorbital purulent collection was performed, as well as an incision of approximately 1.5 cm in the upper eyelid at the medio-orbital level, with drainage of the purulent collection. Favourable evolution.

**CONCLUSION:** Orbito-ocular complications represent a medical-surgical emergency with the potential for unfavourable evolution.

**KEYWORDS:** orbital complications, ethmoid-maxillary sinusitis, external ethmoidectomy.

#### (56) MEDITERRANEAN STRUCTURAL RHINOPLASTY – COMMON TECHNIQUES AND ANALYSIS

**Adrian M Agius, MD, PhD, FRCS (Ed), M Med Sc (BHam)**  
*St Anne Clinic, Triq Kanonku Karmenu Pirotta, B'Kara, Malta*

**BACKGROUND:** This presentation looks at common structural techniques used in Mediterranean Rhinoplasty.

**OBJECTIVES:** Analysis of different techniques used.

**METHODS:** Data was collected for 520 patients with different techniques.

**RESULTS:** Men are more likely to need structural septal work, while women are more likely to need tip work.

**CONCLUSION:** It is important to be proficient in septoplasty while carrying out septorhinoplasty.

This presentation analyzes the techniques used by the author in Mediterranean rhinoplasty in the last 520 cases.

A description of the techniques is presented together with a statistical analysis comparing men and women.

Structural septal techniques are more common in men due to trauma, while in women, tip techniques are commoner.

Surgeons carrying out Mediterranean septorhinoplasty should be proficient in septal surgery.

#### (57) TREATMENT OF CHRONIC FACIAL PAIN IN RHINOLOGY PATIENT

**Adrian M Agius, PhD, FRCS (Ed), M Med Sc (BHam)**

*St Anne Clinic, Triq Kanonku Karmenu Pirotta, B'Kara, Malta*

**BACKGROUND:** This presentation deals with the commonest types of facial pain presenting in the Rhinology clinic.

**OBJECTIVES:** Understanding the mechanisms of facial pain.

**METHODS:** Investigating the different types of chronic facial pain.

**RESULTS:** Most facial pain is chronic tension-type pain.

**CONCLUSION:** An analysis of signs and symptoms is presented.

### (58) DISE – VALUABLE METHOD TO ESTABLISH THE PROPER THERAPY FOR OSA PATIENT

**Neagos Adriana**

*“George Emil Palade” University of Medicine Pharmacy Science and Technology, Otorhinolaryngologic Department, Targu Mures, Romania*

**BACKGROUND:** An accurate assessment of the site of obstruction in Obstructive Sleep Apnea (OSA) is the key to its effective management, especially the surgical intervention. The Drug-induced sleep endoscopy (DISE) is used to evaluate the upper airway during sleep.

**OBJECTIVES:** The objectives of our many studies were to assess the level and degree of airway obstruction in patients with moderate to severe obstructive sleep apnea using DISE. We also sought to establish a correlation between DISE findings and awake fiberoptic assessments as well as the severity of OSA.

**METHODS:** We evaluated patients who underwent awake fiberoptic nasal endoscopy in the outpatient department and propofol-induced DISE in the main operating theatre. We performed these measurements as part of the project carried out by our university, having the number 511/17.01.2022.

**RESULTS:** The common level of the obstruction is the velum, tongue base and tonsils. In multilevel obstruction, the common combination is the velum with the tongue base, and the aspect of the collapse is especially antero-posterior. It is not a big difference between the localization of the obstruction and the degree of the apnea, when we compare the DISE with the polysomnographic investigations. If we compared the results with the awake fiberoptic endoscopic evaluation, DISE would be able to assess the collapse at the level of velum with higher sensitivity. The collapse at the hypopharyngeal level during the awake examination was not clearly specific.

**CONCLUSION:** DISE is an examination that can be performed in all cases of velum or tongue base collapse, with or without hypopharyngeal obstruction. This examination is indicated just for selected cases, before the multilevel surgery.

### (59) OSA UP TO DATE IN DIAGNOSIS AND TREATMENT. THE OTORHINOLARINGOLOGIST – A SPECIALIST IN EVALUATION OF THE PATIENT WITH OBSTRUCTIVE SLEEP APNEA SYNDROME

**Neagos Adriana**

*“George Emil Palade” University of Medicine Pharmacy Science and Technology, Otorhinolaryngologic Department, Targu Mures, Romania*

**BACKGROUND:** The evaluation of patients with sleep pathology represents the current issue of the medical world. Sleep breathing disorders, although frequently encountered in pathology, still remain undiagnosed. In Romania, there is currently a limited number of ENT specialist doctors with competence in the field of sleep medicine, which can hinder the early diagnosis of sleep breathing pathology.

**OBJECTIVES:** The objective of this paper is to demonstrate the usefulness of the ENT specialist in the early diagnosis of sleep pathology, especially respiratory sleep disorders, which

are the most common. Understanding and knowing the physiopathological mechanisms of breathing are the basis of the study of sleep breathing disorders.

**METHODS:** With over 20 years of experience in the field of sleep pathology, I have evaluated a significant number of patients with these disorders.

The documentation and experience gained in polygraphic and polysomnographic evaluation allowed for the selection of patients for further specialized investigations. These consist of performing examinations during the waking period, followed by fibroscopy during sleep, in order to select the cases suitable for surgical interventions.

**RESULTS:** The medium and long-term results have shown that early diagnosis is based on knowledge related to the mechanisms of sleep in general and breathing during sleep. All this correlated with the anatomical changes of the upper respiratory tract allow an early diagnosis of patients with OSA and the establishment of an appropriate treatment.

**CONCLUSION:** Individual polygraphic and polysomnographic investigations do not represent anything in the diagnosis of OSA, but only in a clinical context, in order to establish the level of obstruction and institute an adequate treatment in order to increase the quality of life.

### (60) BIOLOGICS IN THE MANAGEMENT OF CRSWNP – THE ALLERGOLOGIST’S POINT OF VIEW

**Carmen Panaitescu, Cristina Uta**

*“Victor Babes” University of Medicine and Pharmacy, Timisoara, Romania*

**BACKGROUND:** Chronic rhinosinusitis with nasal polyps (CRSwNP) is a heterogeneous inflammatory disease with multiple phenotypes. Many patients with CRSwNP report poor quality of life (QoL), in both physical and emotional domains, which is further compromised by comorbidities (e.g., asthma, bronchiectasis, aspirin-exacerbated respiratory disease).

**OBJECTIVES:** Type-2 CRSwNP often requires repetitive use of systemic corticosteroids or recurrent surgery, underscoring the ultimate need for new treatment options.

**METHODS:** We evaluated the studies assessing the benefits of biologics in CRSwNP.

**RESULTS:** More than 85% of CRSwNP cases are related to type 2 inflammation, characterized by increased disease severity, higher recurrence and asthma risk. This endotype is Th2/ILC2-mediated, with three key cytokines (IL-4, IL-5, IL-13), and is associated with eosinophilia – a strong prognostic factor for recurrence. The treatment algorithm for CRSwNP places biologics as the last option for uncontrolled, severe CRSwNP patients, who do not respond to traditional medications or surgery. Currently, three biologics targeting type 2 inflammation are approved for adults with inadequately controlled CRSwNP: dupilumab (anti IL-4 receptor mAb), omalizumab (anti-IgE mAb) and mepolizumab (anti-IL-5 mAb). The consensus for CRSwNP proposed to use dupilumab for severe CRSwNP that hasn't improved despite other medical and surgical treatments; mepolizumab for

severe CRSwNP with concomitant poorly controlled eosinophilic asthma, omalizumab for severe CRSwNP with concomitant, poorly controlled allergic asthma. The response to the biological therapy should be assessed after 16 weeks and one year of therapy.

**CONCLUSION:** Type 2-directed biologic therapies approved for CRSwNP can reduce nasal polyp size, improve QOL, and reduce the burden of disease for patients. Further studies are needed to define the best way to evaluate their effectiveness in CRSwNP.

### (61) TRANSPHENOIDAL ENDOSCOPIC APPROACH TO PITUITARY TUMORS

**Sorin Sabau, Claudiu Matei**

*Polisano MedLife Hospital, Sibiu, Romania*

The sellar and parasellar region is an anatomically complex area where a number of neoplastic, inflammatory, infectious, developmental and vascular diseases can develop. Although most sellar lesions are due to pituitary adenomas, a number of other pathologies involving the sellar/parasellar region can present in a similar manner. The management of these pathologies involves a multidisciplinary approach. Our multidisciplinary team includes doctors from several specialities: neurosurgery, otolaryngology, anesthesiology, endocrinology, neurology, ophthalmology, radiology, pathology, oncology, clinical laboratory. For a precise staging and planning, the magnetic resonance imaging and computed tomography scans are analyzed with the neuroradiologist. An endocrine and ophthalmological assessment should be performed before and after the surgery.

The endoscopic surgery has become an established technique, having several advantages over the microscopic surgery. Our surgical team composed by a neurosurgeon and an ENT surgeon performs the transnasal endoscopic surgery with the patient under general controlled hypotensive anesthesia. The neuronavigation system with CT-scan/MRI fusion is used for all our surgeries to help anatomical orientation and reduce complications related to the approach. For large tumors, we use Intraoperative Neurophysiological Monitoring to minimize the surgical risk. This procedure involves the use of physiological tests that can identify structures of the nervous system and assess their functioning in real time during surgery. The endoscopic endonasal approach to the skull base provides a direct anatomical route to the lesion with very good visibility, without traversing any major neurovascular structures, obviating brain retraction. In addition, the endoscopy provides a distinctive panoramic view of the extrasellar region. Postoperatively, an MRI is performed and the hydroelectrolytic balance is closely monitored in order to detect diabetes insipidus.

We consider that the rhinosurgical-neurosurgical cooperation shortens the learning curve and offers interdisciplinary benefit, with less surgical morbidity and

better surgical results. Interdisciplinary collaboration facilitates decision making in all phases of the complex treatment.

**KEYWORDS:** pituitary fossa tumors, multidisciplinary team, transnasal endoscopic surgery.

### (62) SURGICAL ASPECTS IN A SERIES OF 47 CASES OF SINONASAL INVERTED PAPILLOMA

**Milea Alex Iulian<sup>1,2</sup>, Bejenariu Andreea Elena<sup>1,2</sup>, Sarafoleanu Codrut<sup>1,2</sup>**

<sup>1</sup>ENT&HNS Department, "Sfanta Maria" Clinical Hospital, Bucharest

<sup>2</sup>"Carol Davila" University of Medicine and Pharmacy, Bucharest

**BACKGROUND:** Sinonasal inverted papilloma is a rare benign tumor that mostly affects the elder group of the 4th-7th decade of life and is characterized by: a high rate of recurrence, malignant evolution and an increased potential for local destruction. The purpose of this study is to point out the most frequent origin of sinonasal inverted papilloma, the most frequently used surgical approach, the rate of recurrence and the rate of malignant transformation.

**MATERIAL AND METHODS:** We report a retrospective analysis of inverted sinonasal papillomas that were treated in the ENT&HNS department of "Sfanta Maria" Clinical Hospital, Bucharest between 2021-2023. There were 47 patients diagnosed and operated for sinonasal inverted papilloma, with ages ranging from 44 to 81 years.

**RESULTS:** We note the male predominance of 64% of our patients and an average age of 60 years. A computed tomography (CT scanning) was performed before all surgical interventions. The most frequent origin of the tumor was identified in the maxillary sinus in 55% of patients, in the ethmoidal sinus in 38% of patients; for 7% of the patients, the origin could not be identified because of an extensive pansinus tumor with no focal hyperostosis identifiable on the CT scan. 27% of the patients underwent surgery for tumor recurrence, which occurred between 3-16 years after their last surgery. In patients who underwent surgery for tumoral recurrence, the initial surgical approach was endoscopic in 19% of the patients and lateral rhinotomy in 8% of the patients. Malignant transformation was identified in 10% of the patients (in 6% of them, the malignant transformation was identified during the first surgery and for the others, the malignant transformation was identified when the recurrence occurred). Piecemeal resection was performed in 95% of the patients and en bloc resection was possible for 5% of the patients. The most used surgical approach was endoscopic-assisted excision in 32 patients, endoscopic medial maxillectomy was performed for 11 patients and lateral rhinotomy was used in only 4 cases.

**CONCLUSION:** Sinonasal inverted papilloma is a benign tumor, but it harbours the potential for malignant degeneration. A complete removal of the tumor and the pe-

ripheral bone edge is essential for proper and permanent treatment. Regardless of the surgical approach used, the follow-up must be based on frequent visits with accurate endoscopic examination.

**KEYWORDS:** inverted papilloma, malignant transformation, sinonasal tumor.

### (63) THE LEARNING CURVE FROM THE LATERAL TRANSFACIAL TO THE SIMULTANEOUS MULTIORTAL ENDOSCOPIC SKULL BASE APPROACHES

Zsolt Bella<sup>1</sup>, Tamas Fischer-Szatmari<sup>2</sup>, Bela Fulop<sup>2</sup>, Agnes Szalenko-Tokes<sup>1</sup>, Erika Gyura<sup>3</sup>, Laszlo Rovó<sup>1</sup>, Pal Barzo<sup>2</sup>

<sup>1</sup>Otorhinolaryngology and Head Neck Surgery Department, University of Szeged, Szeged, Hungary

<sup>2</sup>Neurosurgery Department, University of Szeged, Szeged, Hungary

<sup>3</sup>Anaesthesiology and Intensive Care Department, University of Szeged, Szeged, Hungary

**BACKGROUND:** For the management of large tumors with sinonasal and skull base involvement, a combination of transfacial/transnasal endoscopic and minimally invasive craniotomy via transcliliary supraorbital keyhole approaches have to be employed, either in two steps or simultaneously. Through special series presentations, we would like to showcase our team's philosophy and combinations, and our continuous and flexible learning curve.

**METHODS:** The well-known microscope-assisted minimally invasive approach via a transcliliary supraorbital keyhole craniotomy was combined with the endoscopic endonasal approach.

**RESULTS:** 11 patients (2013-2021) with different histologic types of tumors affecting the sinonasal area and the skull base were operated on. The mean operative time was 3 hours, there were no unexpected intraoperative or postoperative complications, and total tumor removal was achieved in each patient. None of the patients experienced complications associated with the surgery during follow-up.

**CONCLUSION:** Our combined simultaneous multiportal approach enables total tumor eradication with reduced operative time, and is associated with minimal intraoperative and postoperative complications, low mortality rate, and excellent cosmetic results.

### (64) VESTIBULAR MIGRAINE

Maria - Eugenia Domuta

University of Oradea, Oradea, Romania

**BACKGROUND:** Vestibular migraine is a common cause of dizziness and headache defined as an independent entity only since 2018. It is among the most common causes of recurrent vertigo in the general population, but despite the diagnostic criteria published in 2012, it is still underdiagnosed. The exact mechanisms of vestibular migraine are not fully understood, but the symptoms variability and the clinical presentation during or between crises suggest an important connection between the ves-

tibular and trigeminal systems.

**OBJECTIVES:** We aim to provide an overview of the current understanding of the vestibular migraine.

**METHODS:** The review of epidemiology, physiopathology, clinical and laboratory examination and treatment of vestibular migraine.

**RESULTS:** The diagnosis is based on the patient history and the exclusion of other potential secondary causes (Meniere's disease, BPPV, vertebrobasilar ischemia, basilar migraine, type 2 episodic ataxia, cervicogenic vertigo). Currently, there are no reliable diagnostic biomarkers or tests.

Vestibular tests usually fall within range in people with a personal or hereditary history of migraine, especially women over the age of 40. Therapeutic recommendations are based on migraine guidelines, involving the treatment of the actual crisis, lifestyle changes, pharmacological and non-pharmacological prevention as well as the treatment of comorbidities.

**CONCLUSION:** The challenges of a correct diagnosis emerge from the relative spectrum of symptoms and the absence of headaches consistent with the typical pattern of migraines with vestibular symptoms.

### (65) ORBITAL CELLULITIS – COMPLICATION OF AN UNTREATED RHINOSINUSITIS

Lapusneanu Lucian<sup>1</sup>, Dobre Elena<sup>2</sup>, Lapusneanu Luciana<sup>3</sup>, Arjoca Sebastian Ionut<sup>3</sup>, Naca Andreea<sup>4</sup>

<sup>1</sup>ENT Department, Emergency Clinical County Hospital, Braila, Romania

<sup>2</sup>Ophthalmology Department, Emergency Clinical County Hospital, Braila, Romania

<sup>3</sup>“George Emil Palade” University of Medicine Pharmacy Science and Technology, Targu Mures, Romania

<sup>4</sup>Radiology Department, Emergency Clinical County Hospital, Braila, Romania

**BACKGROUND:** Orbital cellulitis is an infection of the soft tissues of the eye socket behind the orbital septum, being one of the complications of untreated rhinosinusitis. Most of the cases with orbital complications, although treated with medication, also require the association of surgical treatment with rhinosinus drainage and orbital decompression, which must not be delayed, in order to avoid vision loss.

**OBJECTIVES:** The aim of this paper is to discuss the orbital complications of rhinosinusitis and the treatment modality, highlighted by the presentation of a clinical case of a patient with recurrent episodes of maxillary and ethmoidal rhinosinusitis, who was urgently hospitalized for the exacerbation of an exophthalmia accompanied by palpebral edema, chemosis, decreased visual acuity and mobility of the right eyeball, anteroposterior fetid purulent rhinorrhea, nasal obstruction, headache and febrile condition.

**MATERIAL AND METHODS:** The ENT clinical examination is performed and the nasal endoscopy highlights



hyperemia and hypertrophy of the nasal turbinates, septal deviation and purulent secretions in the middle meatus. The CT examination reveals significant proptosis of the right eyeball, with elongation of the optic nerve and blockage with purulent secretions of the sinuses on the left side. Endoscopic surgery was performed. In the first part of the surgery, we removed the laterodeviated nasal septum portion to be able to access the maxillary antrostomy. Next, we performed a right ethmoidectomy, which involved draining purulent secretion, lavaging with saline solution and performing orbital decompression.

**RESULTS:** Postoperatively, the patient's evolution was favourable, with the disappearance of proptosis, reduction of eyelid edema, improvement of visual acuity and mobility of the eyeball. The postoperative control CT revealed the disappearance of pus, inflammation from the right sinuses, and the reduction of edema and inflammatory reaction of the orbit and proptosis.

**CONCLUSION:** Early diagnosis of rhinosinusitis and orbital cellulitis is important in order to prevent this type of complications. In addition to correct and timely administration of medical treatment, the surgical stage, with sinus drainage and orbital decompression, plays an important role.

**KEYWORDS:** orbital cellulitis, proptosis, chemosis, orbital decompression.

#### (66) EXPERIENCES WITH DUPILUMAB IN THE TREATMENT OF CRSWNP IN A HUNGARIAN CENTER

Ágnes Kiricsi, Eszter Erdélyi, Mária Matuz, László Rovó, Zsolt Bella

*University of Szeged, Szeged, Hungary*

**BACKGROUND:** Chronic rhinosinusitis with nasal polyps (CRSwNP) is a predominantly type 2-mediated inflammatory disease with reduced health-related quality of life (HRQoL). Dupilumab, a fully human monoclonal antibody that binds IL-4R $\alpha$  and inhibits signalling of both IL-4 and IL-13, has shown efficacy across multiple diseases with underlying type 2 signatures: asthma, atopic dermatitis, and chronic sinusitis with nasal polyposis. In Hungary, based on the EPOS 2022 and EUFOREA, the criteria of indication were elaborated. Patients are selected in the CRS centres according to these criteria, and the treatment starts when the named patient reimbursement is accepted by the National Health Insurance Company. We report our provisional findings from a real-life, prospective observational cohort about the therapeutic efficacy of dupilumab in an adult CRSwNP-population ( $\geq 18$ y) in our centre.

**METHODS:** Since 2020, altogether 45 patients received named patient reimbursement for dupilumab and were treated in the ENT Department of the University of Szeged. Dupilumab was auto-administered subcutaneously, 300mg once in every 2 weeks. We administered the 22-item Sinonasal Outcome Test (SNOT22), rhinosinusitis severity visual analogue scale (VAS), NOSE question-

naire, we performed nasal endoscopy and evaluated nasal polyp score and smell disorder at baseline, 6 months (t1) and 12 months (t2) follow-up.

**RESULTS:** 26 male and 19 female patients were treated with dupilumab continuously, average age 53,75 years. At baseline, patients had a poor quality of life: the mean nasal polyp score was 4,77, SNOT22 (0-110) 66,53, VAS (0-10) 8,378. The number of previous surgeries (FESS) was 4,53. 33 patients have asthma, 29 have comorbid non-steroidal anti-inflammatory drug-exacerbated respiratory disease (NSAID-ERD). After 3 months, all of them experienced improvement in nasal airflow, and less postnasal drip. At the 6-month follow-up visit, all the examined parameters improved significantly. The SinoNasal Outcome Test-22 (SNOT-22) improved from 66,53 to 16,45, the bilateral Nasal Polyp Score (NPS) improved from 4,77 to 1,22. At the 12-month follow-up visit, all these improvements were maintained. No rescue treatment or surgery was necessary. Only one patient had hypereosinophilia, but with the administration of dupilumab in every third week it normalised.

**CONCLUSION:** Dupilumab treatment led to a significant improvement in symptoms and the quality of life in this difficult-to-treat group of patients, without any severe side effect. It is a promising therapeutic option for uncontrolled CRSwNP patients.

#### (67) OSTEOARTICULAR MANIFESTATIONS OF DYSPHAGIA, CORRELATIONS BETWEEN THE SPINE, DENTAL OCCLUSION, EYES AND BALANCE

Ene Daniela, PhD Physiokinetic therapist

*Physiokinetic Therapy Department, "Sfanta Maria" Clinical Hospital, Bucharest, Romania*

**BACKGROUND:** Dysphagia strongly impacts the patients' quality of life, social, emotional, nutritional status and overall health. The causes of dysphagia are multiple, more or less obvious, but identifying them as accurately as possible contributes to the most effective therapeutic behaviour.

**OBJECTIVES:** The paper wants to highlight connections and relationships of influence between functions and structures of the body that apparently have no direct connection.

**METHODS:** The methods used were: study, observation, reasoning, experiment, content analysis, manual therapy, exercises, assessments.

**RESULTS AND CONCLUSION:** An in-depth study and observation of how the body works are required to observe, in a complete and complex approach, its functions, the way they are prioritized over others, the way they condition each other, and to understand the adaptation reaction in the body and the need for compensations. That leads to organic, structural and functional changes.

To see the human as a whole offers the opportunity to treat it in a gentle way, with the possibilities to choose minimally invasive therapeutic alternatives, resulting in minimal side effects and a shorter recovery time.

### (68) THE IMPORTANCE OF THE UNCINATE PROCESS INVOLVED IN ENDOSCOPIC SINUS SURGERY

Mihail Dan Cobzeanu, Dragos Octavian Palade, Vasilica Baldea, Luiza Maria Cobzeanu, Bogdan Mihail Cobzeanu  
 “Grigore T. Popa” University of Medicine and Pharmacy, Iasi, Romania

**BACKGROUND AND OBJECTIVES:** The uncinat process is the key in the bony structures of the ethmoid in the lateral nasal wall. Together with the ethmoid bulla, it defines the semilunar hiatus. It has the appearance of a soft bony blade that belongs to the ethmoid and merges with the ethmoid process of the inferior nasal turbinate.

**MATERIAL AND METHODS:** The study enrolled 108 men (52.69%) and 97 women (47.3%), with a mean age of  $47.61 \pm 17.71$  years, prevailing subjects between 30-40 years. Statistical indicators regarding patients' age and sex were presented. The aim of the study was to determine the prevalence of the different types of angulation of the uncinat process (normal, medialization, verticalization).

**RESULTS:** Pneumatization of the uncinat process (uncinat bulla); Variants of superior insertion of the uncinat process. Approximately two-thirds of the uncinat processes, both on the right and left side, presented a normal angulation as compared to the sagittal plane (with a right prevalence of 77.56% and, respectively, 79.02% on the left). Verticalization of the uncinat process was more frequent on the right side (15.12%) than on the left (6.82%), while medialization (horizontalization) was more frequent on the left (15.61%) versus the right side (6.86%). Pneumatization of the uncinat process (uncinat bulla) is a very rare anatomical variant, with a prevalence of 3.41%, prevailing left unilateral forms.

**CONCLUSION:** Anatomical variants of superior insertion of the uncinat process had a higher frequency into the papyracea lamina (25.36% on the left, 23.41% on the right), followed by those into the middle turbinate (16.58% on the left, 9.75% on the right) or the skull base (5.85% on the left, 4.87% on the right), multiple insertions, insertions into the ethmoidal bulla or the superior turbinate, which registered a very small percentage.

**KEYWORDS:** uncinat process, endoscopic sinus surgery.

### (69) NUANCES IN RHINOPLASTY: PEARLS AND PITFALLS

Balwant Singh Gendeh

Pantai Hospital, Kuala Lumpur, Malaysia

MBBS, MS(ORL-HNS) UKM, A.M(MAL), FAMM (Rhinology-Allergy, Endoscopic Nasal and Sinus Surgery), FMSA, FASC, DPTJ, DSAP

Rhinoplasty requires a thorough preoperative analysis of both aesthetic and functional characteristics of the nose. Emphasis should be paid to the internal and external nasal valves and nasal septum before and during surgery, in order to preserve and improve nasal function following cosmetic rhinoplasty.

Careful evaluation of the patient's nasal airway with identification of areas of existing or potential obstruction is important to avoid potential pitfalls that may compromise nasal func-

tion following rhinoplasty.

The author shares his experience on nasal functionality by focusing on the management of the internal and external nasal valve as well as the nasal septum during surgery.

### (70) ODONTOGENIC MAXILLARY SINUSITIS: DIAGNOSIS AND THERAPY

Prof Felice Scasso, Specialist in ENT and cervicofacial pathology

U.O. ORL, Ospedale P A Micone-ASL 3, Genova, Italy

Odontogenic maxillary sinusitis (OMS) is one of the earliest recognized causes of chronic rhinosinusitis (CRS). It was first referred to by Bauer in 1943. However, today, odontogenic causes of maxillary sinusitis are often overlooked. The majority of rhinosinusitis guidelines written in the last decade do not include OMS as a cause of CRS. Out of 85 sinusitis guidelines, published between 1998 and 2010, only eleven mentioned an odontogenic cause for sinusitis and only three gave a recommendation for a dental examination. In the European Position Paper on Rhinosinusitis, odontogenic rhinosinusitis is briefly mentioned as a possible cause of CRS, but only a limited description is given. Also, in the “Clinical Practice Guidelines for Management of Adult Rhinosinusitis” the American Academy of Otolaryngology-Head and Neck Surgery Foundation makes no mention of the potential for an odontogenic cause for sinusitis.

Historically, 10% to 12% of maxillary sinusitis cases have been attributed to odontogenic infection, but this is only referenced anecdotally. Nevertheless, there is some evidence of an increase in cases; some studies report that the odontogenic etiology accounts for 10 – 30% of the cases of maxillary rhinosinusitis, affecting 75% of the patients with symptomatic unilateral maxillary rhinosinusitis undergoing surgical treatment.

Potential etiologies of odontogenic sinusitis include periodontal and periapical disease, as well as iatrogenic injury to the mucoperiosteum or Schneiderian membrane of the maxillary sinus, which is considered one of the most frequent causes today.

Endodontic infections are typically the result of extension of dental caries into the dental pulp, resulting in pulpitis and apical infection. Odontogenic sinus infections may produce only a minimal, often asymptomatic local reaction in the antral floor periosteum and/or mucosa for months or even years. However, a pathologically altered mucosa is impaired and less resistant than an intact one to infection, and is a pathogenic factor in the progression to rhinosinusitis. Dental procedures such as dental extractions, maxillary dental implant placement, sinus augmentation grafts (“sinus lift”), misplaced foreign bodies, orthognathic and cleft surgery procedures have all been associated with odontogenic sinusitis.

The clinical presentation of odontogenic sinusitis varies, but most commonly includes: facial pain or pressure, postnasal drip, nasal congestion, purulent anterior rhi-

norrhoea that may be unilateral, foul smell or taste, fatigue. Typical endodontic symptoms such as thermal pain, periapical sensitivity, swelling, and/or draining intraoral sinus tract are often not present and less than half of the patients report a recent dental procedure. This is likely due to the latency period of up to a year for augmentative dental surgery-associated maxillary sinusitis and a latency of almost four years in implant-associated maxillary sinusitis.

The intranasal examination with anterior rhinoscopy or nasal endoscopy may demonstrate findings of unilateral purulent rhinorrhoea or edema, but remains less sensitive in the detection of odontogenic sinusitis as compared to imaging modalities. The evaluation of dentition for root fractures, status of the dental pulp, periodontal tissues, presence of an oral-antral fistula and condition of existing dental restorations are important components of the initial physical examination.

Radiographic imaging is an essential diagnostic tool in the diagnosis and management of odontogenic sinusitis. Standard dental radiographs include periapical and panoramic radiography, but today, the most commonly used radiographic survey in the study of OMS is cone beam computerized tomography (CBCT). CBCT imaging produces a three-dimensional rendering of pertinent anatomical structures in axial, sagittal and coronal planes. This modality offers high resolution images in multiple planes and eliminates superimposition of maxillary molars, allowing for clinicians to distinguish between tissues with varying physical densities.

The gold standard for radiographic evaluation of the paranasal sinuses in patients with chronic and recurrent acute sinonasal disease is maxillofacial CT scans that allow for a detailed examination of the paranasal sinus anatomy and detection of sinonasal inflammation. The radiographic examination of patients with odontogenic sinusitis most commonly demonstrates unilateral maxillary sinusitis and more than 70% of maxillofacial CT scans showing unilateral maxillary sinusitis may be attributable to an odontogenic infection.

The bacteriology of odontogenic sinusitis is distinctly different from cases of non-odontogenic sinusitis. Odontogenic sinus infections are generally polymicrobial with predominantly anaerobic organisms present in cultures, commonly including *Peptostreptococcus*, *Prevotella*, and *Fusobacterium*.

The successful management of OMS, as with any infection of endodontic origin, is focused on removing the nidus of infection and preventing reinfection. The OMS treatment objectives are the removal of pathogenic microorganisms through medical therapy and the elimination of pulpal debris from the infected root canal system that is causing the sinus infection. Medical therapy is based on the use of antibiotics, in particular piperacillin, cefotaxime, moxifloxacin, prulifloxacin, ciprofloxacin and corticosteroids in a tapering dose for at least 10 days.

For patients who fail the initial medical management and dental treatment, an endoscopic sinus surgery may be required. A recent retrospective review of 43 patients with odontogenic sinusitis demonstrated that 52% of the patients improved with medical and dental treatment, while 48% ultimately required functional endoscopic sinus surgery.

The most frequent interventions that we perform are: total uncinectomy and wide middle antrostomy for maxillary involvement with sinusitis, partial inferior uncinectomy and mini-antrostomy for maxillary involvement without sinusitis (retained foreign bodies), radical ethmoidectomy for ethmoidal involvement and type I frontal drainage for frontal involvement.

In conclusion, odontogenic sinusitis is an important and relatively common disease process that is often under-recognized and frequently not identified by radiologists. This disease process is often refractory to conventional management for rhinosinusitis due to the polymicrobial, anaerobe-predominant nature of these infections as well as ongoing dental pathology. A successful management involves a combination of medical treatment, dental surgery and/or endoscopic sinus surgery.

## (71) ABOUT NASO-SINUSAL "TUMORS" IN CHILDREN

**Marco Piemonte**

Past President of the Italian College of Surgeons (CIC)

Past President of the Italian Society of ORL-Head and Neck Surgery (SIOeCHC-F)

*ENT Clinic, Azienda Sanitaria Universitaria Integrata di Udine, Udine, Italy*

Head & Neck pediatric tumors are rare (about 3-5% of all tumors) and naso-sinusoidal tumors are even much rarer.

This rarity of observations justifies not only the limited chances of personal experience in this field for ENT specialists, but also the upstanding problems in classification, in diagnostic approaches, in therapeutic guidelines.

Moreover, the peculiarity of the naso-sinusoidal anatomy in children, the narrow naso-paranasal spaces, the significant differences in epidemiologic, clinico-pathologic and prognostic features of these tumors add more difficulties in this oncologic field.

Naso-paranasal "tumors" in children should be classified in five groups:

- 1 Congenital "tumor-like" malformations (Meningoencephaloceles, Gliomas, Teratomas)
- 2 Inflammatory-Infectious "tumor-like" diseases (Polyps, Antrocoanal polyps, Mucocoeles, Mycetomas)
- 3 Benign tumors (Hamartomas, Hemangiomas, Leiomyomas, Myxomas, Ossifying Fibromas, Papillomas, Inverted Papillomas, etc.)
- 4 Malignant tumors (Rhabdomyosarcomas, Neuroblastomas, Carcinomas, Vascular malignant tumors, etc.)
- 5 Other systemic malignant neoplasms with "tumoral" look (Hodgkin's and Non-Hodgkin's lymphomas)

Even though the modern diagnostic techniques ("imaging",

endoscopy, anatomopathology, immunobiology, etc.) often allow for an earlier and more precise diagnosis, the clinical approach to pediatric naso-paranasal tumors remains a significant challenge for any ENT specialist.

Also, TNM 2017 classification describes these pediatric tumors only for classification purposes.

The general diagnostic approach aims to identify the histotype (and sub-histotype) and to describe tumoral patterns (site, number of localizations, size and extension). This information facilitates the planning of single-mode or integrated therapy. The therapeutical planning should often be a multidisciplinary one.

When Surgery is the main/first approach, different features should be considered:

- Chances of “First shot/One shot” surgery (Radical exeresis)
- Different surgical techniques/approaches (Endoscopic, External, Combined)
- Consequences on facial skull growth
- Other therapeutical choices

**CONCLUSION:** Naso-paranasal Tumors in Childhood are still an open, unsolved problem in Pediatric Rhinology.

While the diagnostic approach should be thorough and technically complete (by endoscopy, “imaging”, bioptic exams, etc.), the biological and clinical complexity of these tumors will often require a multidisciplinary evaluation and an open-minded and skilled planning. In most cases, the ENT Specialists cannot rely on univocal Guidelines. Instead, they shall therefore reach a “tailor-made” therapeutical and follow-up planning in order to ensure to the little patients not only the highest rate of success, but also the best chances of QOL.

A long-term follow-up of these pediatric tumors is usually strongly recommended.



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