



Reader Digest

Digested by Dr. Tarek Kandil, MD. Consultant, students Hospital, Cairo University

1. Current Updates on Choanal Atresia.

[Kwong KM1.](#)

Abstract

Choanal atresia (CA) is a relatively uncommon but well-recognized condition characterized by the anatomical closure of the posterior choanae in the nasal cavity. Since the original description back in the early eighteenth century, there have been controversies regarding its exact pathogenesis, the optimal surgical approach, and the use of adjunct treatments such as post-surgical stenting and anti-neoplastic agents, despite of abundant literature available. The emergence and development of new technologies play a significant role in the management of this condition. This review provides a comprehensive clinical update on CA and identifies areas for future study based on the existing available literature.

Front Pediatr. 2015 Jun 9; 3: 52.

2. European position paper on the anatomical terminology of the internal nose and paranasal sinuses.

[Lund VJ, Stammberger H, Fokkens WJ, Beale T, Bernal-Sprekelsen M, Eloy P, Georgalas C, Gerstenberger C, Hellings P, Herman P, Hosemann WG, Jankowski R, Jones N, Jorissen M, Leunig A, Onerci M, Rimmer J, Rombaux P, Simmen D, Tomazic PV, Tschabitscherr M, Welge-Luessen A.](#)

Abstract

The advent of endoscopic sinus surgery led to a resurgence of interest in the detailed anatomy of the internal nose and paranasal sinuses. However, the official Terminologica Anatomica used by basic anatomists omits many of the structures of surgical importance. This led to numerous clinical anatomy papers and much discussion about the exact names and definitions for the structures of surgical relevance. This European Position Paper on the Anatomical Terminology of the Internal Nose and Paranasal Sinuses was conceived to re-evaluate the anatomical terms in common usage by endoscopic sinus surgeons and to compare this with the official Terminologica Anatomica. The text is a concise summary of all the structures encountered during routine endoscopic surgery in the nasal cavity, paranasal sinuses and at the interface with the orbit and skull base but does not provide a comprehensive text for advanced skull base surgery. It draws on a detailed review of



the literature and provides a consensus where several options are available, defining the anatomical structure in simple terms and in English. It is recognised that this is an area of great variation and some indication of the frequency with which these variants are encountered is given in the text and table. All major anatomical points are illustrated, drawing on the expertise of the multi-national and multi-disciplinary contributors to this project

Rhinol Suppl. 2014 Mar; (24):1-34

3. Proposal for staging of inflammatory lesions in the frontal region.

[Soberón GS1, Prado HM2, Sadek A1, Plowes O1, Arrieta JR1, Figueroa V3.](#)

Abstract

Frontal swelling can be due to multiple etiologies, including: mucocele, Pott's puffy tumor, fibro osseous lesions, benign and malignant neoplasms of the nose and paranasal sinuses, intracranial lesions, and metastasis. The objective of this study was to describe the clinical protocol used for the diagnosis of patients presented with frontal swelling and the proposal for staging of inflammatory lesions. We performed an observational retrospective analysis. We found 7 cases of patients with frontal swelling: 4 cases secondary to inflammatory pathology (3 Potts puffy tumors and one frontal mucocele), and 3 cases secondary to neoplasms (one benign and 2 malignant neoplasms). It's very important to consider the wide differential diagnosis that can present as frontal swelling, from inflammatory pathologies secondary to possible advanced infections of the paranasal sinuses to invasive malignant neoplasms. We propose a system of staging of frontal inflammatory lesions

Acta Otorrinolaringol Esp. 2015 Nov 14. pii: S0001-6519(15)00137-5

4. Nasal fractures in children and adolescents: Mechanisms of injury and efficacy of closed reduction.

[Liu C1, Legocki AT1, Mader NS2, Scott AR3.](#)

Abstract

OBJECTIVES:

To determine the most common mechanisms of traumatic nasal deformity referred to pediatric otolaryngology. To examine the efficacy of closed reduction of nasal



fractures in children and adolescents based on the parents' and surgeons' ratings of post-reduction nasal symmetry.

METHODS:

Case series and chart review within an urban, tertiary pediatric otolaryngology practice.

RESULTS:

100 cases of traumatic nasal deformity met inclusion criteria over a 3-year study period. The mean age at presentation was 13 years (4 weeks-18 years); 55% were male and 70% were over the age of 12 years. The most common mechanism of injury was sports-related trauma (28%), followed by accidental trauma (21%), interpersonal violence (10%), motor vehicle collision (6%) and alcohol-related (2%). Of these 100 cases, 22% underwent closed reduction within a 14-day period following injury. All patients achieved symmetry in the operating room immediately following reduction. 21 of 22 post-reduction patients were assessed for nasal symmetry at the postoperative visit (7-10 days following surgery). The operating surgeon was satisfied with nasal symmetry in 43% of cases and the parent(s) satisfied in 81% of cases. Both parent and surgeon were satisfied with post-reduction symmetry 33% of the time.

CONCLUSION:

The most common sources of traumatic nasal deformity in children and adolescents vary by age. In cases meriting operative intervention, parents appear to be satisfied with early postoperative results following closed reduction in approximately 80% of cases, however a result in which both parent and surgeon agree with successful re-establishment of symmetry occurs in only one-third of cases

Int J Pediatr Otorhinolaryngol. 2015 Oct 21. pii: S0165-5876(15)00518-2.

5. Sphenopalatine Artery Ligation for Epistaxis: Factors Influencing Outcome and Impact of Timing of Surgery.

[McDermott AM1, O'Cathain E1, Carey BW1, O'Sullivan P1, Sheahan P2.](#)

Abstract

OBJECTIVE:

Sphenopalatine artery ligation is a commonly employed surgical intervention for control of posterior epistaxis unresponsive to nasal packing. The objective of the present study was to evaluate the outcome of sphenopalatine artery ligation for control of epistaxis at our institution and the impact of timing and other factors on outcome.



STUDY DESIGN:

Case series with chart review.

SETTING:

Academic tertiary referral center.

SUBJECTS AND METHODS:

Case notes were reviewed for 45 consecutive patients undergoing sphenopalatine artery ligation for control of epistaxis between October 2008 and October 2014.

RESULTS:

Forty-one patients had nasal packing prior to sphenopalatine artery ligation, with 33 undergoing ≥ 2 packings. Postoperatively, 6 patients had rebleeding, which was treated with repacking ($n = 4$) and return to the operating room ($n = 2$). The overall success rate of sphenopalatine artery ligation was 87% (39 of 45). Rebleeding rate was not affected by concomitant septoplasty, anterior ethmoidal artery ligation, or postoperative nasal packing. Patients undergoing SPA ligation within the first 24 hours of admission had a significantly shorter hospital length of stay (3 vs 6 days, $P = .02$) and treatment cost (€5905 vs €10,001, $P = .03$). Length of stay was not influenced by sphenopalatine artery ligation after ≤ 1 nasal pack versus ≥ 2 packs. Timing of sphenopalatine artery ligation did not affect blood transfusion requirement ($P = .84$).

CONCLUSION:

Sphenopalatine artery ligation is an effective management strategy for surgical control of refractory epistaxis. Early timing of sphenopalatine artery ligation may lead to reductions in length of stay.

Otolaryngol Head Neck Surg. 2015 Nov 24.

6. Sublingual Immunotherapy for Allergic Fungal Sinusitis.

[Melzer JM1, Driskill BR2, Clenney TL2, Gessler EM2.](#)

Abstract

Allergic fungal sinusitis (AFS) is a condition that has an allergic basis caused by exposure to fungi in the sinonasal tract leading to chronic inflammation. Despite standard treatment modalities, which typically include surgery and medical management of allergies, patients still have a high rate of recurrence. Subcutaneous



immunotherapy (SCIT) has been used as adjuvant treatment for AFS. Evidence exists to support the use of sublingual immunotherapy (SLIT) as a safe and efficacious method of treating allergies, but no studies have assessed the utility of SLIT in the management of allergic fungal sinusitis. A record review of cases of AFS that are currently or previously treated with sublingual immunotherapy from 2007 to 2011 was performed. Parameters of interest included serum IgE levels, changes in symptoms, Lund-McKay scores, decreased sensitization to fungal allergens associated with AFS, and serum IgE levels. Ten patients with diagnosed AFS were treated with SLIT. No adverse effects related to the use of SLIT therapy were identified. Decreases in subjective complaints, exam findings, Lund-McKay scores, and serum IgE levels were observed. Thus, sublingual immunotherapy appears to be a safe adjunct to the management of AFS that may improve patient outcomes.

Ann OtolRhinolLaryngol. 2015 Oct; 124(10):782-7.

7. Role of modified endoscopic medial maxillectomy in persistent chronic maxillary sinusitis.

[Thulasidas P1, Vaidyanathan V2.](#)

Abstract

Introduction: Functional endoscopic sinus surgery has a long-term high rate of success for symptomatic improvement in patients with medically refractory chronic rhinosinusitis. As the popularity of the technique continues to grow, however, so does the population of patients with postsurgical persistent sinus disease, especially in those with a large window for ventilation and drainage. In addition, chronic infections of the sinuses especially fungal sinusitis have a higher incidence of recurrence even though a wide maxillary ostium had been performed earlier. This subset of patients often represents a challenge to the otorhinolaryngologist. **Objectives:** To identify the patients with chronic recalcitrant maxillary sinusitis and devise treatment protocols for this subset of patients. **Methods:** A retrospective review was done of all patients with persistent maxillary sinus disease who had undergone modified endoscopic medial maxillectomy between 2009 and 2012. We studied patient demographics, previous surgical history, and follow-up details and categorized the types of endoscopic medial maxillectomies performed in different disease situations. **Results** We performed modified endoscopic medial maxillectomies in 37 maxillary sinuses of 24 patients. The average age was 43.83 years. Average follow-up was 14.58 months. All patients had good disease control in postoperative visits with no clinical evidence of recurrences. **Conclusion:** Modified endoscopic medial maxillectomy appears to be an effective surgery for treatment of chronic, recalcitrant maxillary sinusitis.

Int Arch Otorhinolaryngol. 2014 Apr; 18(2):159-64.



8. The role of balloon sinuplasty in the treatment of sinus headache.

[MarzettiA1, Tedaldi M2, Passali FM3.](#)

Abstract

INTRODUCTION:

Headache attributed to rhinosinusitis, commonly called sinus headache (SH), is probably one of the most prevalent secondary headaches. The purpose of our study was to examine further sinus headache comparing the effect of conventional functional endoscopic sinus surgery and the balloon sinuplasty.

MATERIAL AND METHODS:

Eighty-three consecutive patients were enrolled from 2009 to 2012, who were diagnosed sinus headache according the diagnostic criteria of AAO-HNS and of HIS. 40 patients were randomized to Conventional Endoscopy Sinus Surgery for frontal sinus (ESS Group), 35 to balloon sinuplasty of frontal sinus (BS Group).

RESULTS:

The mean operative time was 65 ± 15 min for ESS group patients and 32 ± 7 min for 23 patients (BS1 Group) and 55 ± 18 min for 12 treated with hybrid technique (BS2 Group). The preoperative mean of SNOT-22 scores improved from 28.6 ± 1.2 in ESS group and 27.3 ± 0.8 in BS group to a 1-month postoperative scores of 14.5 ± 0.6 in ESS group and 10.3 ± 0.5 in BS group and to a 6-month postoperative scores of 7.8 ± 0.6 and 5.3 ± 0.3 , respectively ($p < 0.0001$). The headache scores base on analog visual scale improved from a preoperative mean of 6.5 ± 0.3 in ESS group and 7.1 ± 0.4 in Bs group to a 1-month postoperative scores of 5.4 ± 0.4 in ESS group and 5.5 ± 0.4 in BS group and to a 6-month postoperative scores of 2.7 ± 0.5 and 1.2 ± 0.1 , respectively, representing a statistically significant reduction in headache score in both group.

CONCLUSION:

Our data prove that improvement in headache can be expected in patients treated with balloon catheter.

Otolaryngol Pol. 2014 Jan-Feb; 68(1):15-9.



9. Endoscopic endonasal approaches to infratemporal fossa tumors: a classification system and case series.

[Taylor RJ1, Patel MR, Wheless SA, McKinney KA, Stadler ME, Sasaki-Adams D, Ewend MG, Germanwala AV, Zanation AM.](#)

Abstract

OBJECTIVES/HYPOTHESIS:

To propose a clinically applicable anatomic classification system describing three progressive endoscopic endonasal approaches (EEAs) to the infratemporal fossa (ITF) and their potential sequelae. Overall feasibility and outcomes of these approaches are presented through a consecutive case series.

STUDY DESIGN:

Description of classification system for EEAs to the ITF and case series.

METHODS:

A classification system of EEAs to ITF tumors was created based on the senior author's clinical experience and cadaveric dissection. A retrospective chart review of 21 child and adult patients with primary ITF tumors treated by these approaches from 2008 to 2012 at a tertiary-care academic medical center was conducted.

RESULTS:

Three progressive EEAs to ITF tumors were defined: 1) a transpterygopalatine fossa approach, 2) a transmedialpterygoid plate approach, and 3) a translateralpterygoid plate approach. Twenty-one patients treated with these approaches were identified consecutively, with a mean age of 44.2 years (range, 11-79 years). Tumors primarily involving the pterygopalatine fossa and not the ITF were excluded. Pathology included three advanced juvenile nasopharyngeal angiofibromas, three adenoid cystic carcinomas, two recurrent inverted papillomas, two trigeminal schwannomas, and 11 other diverse skull base pathologies. No intraoperative or postoperative complications occurred, with a mean follow-up of 21.5 months (range, 1-55 months). Expected potential sequelae such as V2/palatal numbness, Eustachian tube dysfunction, and trismus occurred in 10/21 patients.

CONCLUSIONS:

EEAs to ITF tumors are technically feasible with low risk of complications for well-selected patients. The proposed classification system is useful for anticipating potential sequelae for each approach

Laryngoscope. 2014 Nov; 124(11):2443-50.



10. Does human papilloma virus play a role in sinonasal inverted papilloma?

[Govindaraj S1, Wang H.](#)

Abstract

PURPOSE OF REVIEW:

Inverted papillomas are a benign sinonasal tumor with a propensity for recurrence and malignant transformation. Although many investigations have been made into the nature of this disease, its etiology and causes for malignant transformation have yet to be fully elucidated. It is the authors' objective to present a review on management of the disease and evaluate the present relationship between human papilloma virus (HPV) and inverted papilloma.

RECENT FINDINGS:

A causal relationship between HPV and the pathogenesis and progression of inverted papilloma has been posited since the 1980s. Although widely varied HPV detection rates have been reported, recent studies have noted a substantial increase in both recurrence and malignant transformation in HPV-infected inverted papillomas. However, exact cellular mechanisms by which infection leads to subsequent recurrence and development of carcinoma have yet to be elucidated.

SUMMARY:

Evidence exists suggesting that HPV infection plays a role in the progression of inverted papilloma and confers an increased risk for recurrence and malignant transformation. PCR is the preferred detection method, and fresh or frozen specimens are the ideal source of tissue for evaluation. Although multiple studies have detected an association between HPV and inverted papilloma (both recurrent and malignant transformation), further studies are necessary to elucidate the underlying molecular pathways before an association can be changed to causation.

Curr Opin Otolaryngol Head Neck Surg. 2014 Feb; 22(1):47-51.