



## **Reader Digest**

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### **1. An Italian multicentre experience in endoscopic endonasal treatment of congenital choanal atresia: Proposal for a novel classification system of surgical outcomes.**

[Karligniotis A1](#), [Farneti P2](#), [Gallo S3](#), [Pusateri A4](#), [Zappoli-Thyrion F5](#), [Sciarretta V5](#), [Pagella F4](#), [Castelnuovo P6](#), [Pasquini E7](#).

#### **Abstract**

#### **OBJECTIVE:**

The purposes of this study were to report our experience with endoscopic treatment of choanal atresia (CA), to illustrate our surgical technique and analyse the different factors that may affect outcomes.

#### **MATERIAL AND METHODS:**

A retrospective review was performed of patients affected by congenital CA and treated between June 1996 and November 2013 at three referral centres which follow a uniform policy.

#### **RESULTS:**

Eighty-four patients with CA (55 unilateral and 29 bilateral), aged between one day and 76 years (mean, 13 years) were included. Associated malformations were present in 28 patients. The overall success rate was 93%, with 96.3% and 86.2% success rates for unilateral and bilateral CA respectively. Six patients (7%) required revision surgery for early symptomatic restenosis. Statistical analysis revealed that outcomes were not influenced by sex, previous surgeries, unilateral versus bilateral atresia or associated anomalies. However, age seemed to be a prognostic risk factor for patients under one year-old.

#### **CONCLUSION:**

The endoscopic endonasal approach is safe and effective, with a very high success rate and low morbidity. The removal of the vomer and the use of mucoperiosteal flaps are the main keys to avoiding postoperative stenosis. The use of stents or Mitomycin C is therefore not mandatory.

J Craniomaxillofac Surg. 2017 Mar 28. pii: S1010-5182(17)30110-5.



## 2. Nasal Injuries in Sports.

[Marston AP1, O'Brien EK1, Hamilton GS 3rd2.](#)

### Abstract

Nasal trauma is a common consequence of athletic competition. The nasal bones are the most commonly fractured facial bone and are particularly at risk during sports participation. Acute management of trauma to the nose includes thorough evaluation of all injuries and may require immediate management for repair of facial lacerations, epistaxis control, or septal hematoma drainage. Nasal fractures can often be addressed with closed reduction techniques; however, in the setting of complex nasal trauma, an open approach may be indicated. Using appropriate treatment techniques, posttraumatic nasal sequelae can be minimized; most patients report satisfactory long-term nasal form and function.

Clin Sports Med. 2017 Apr;36(2):337-353.

## 3. Arterial ligation versus embolization in epistaxis management: Counterintuitive national trends.

[Sylvester MJ1, Chung SY1, Guinand LA1, Govindan A1, Baredes S1,2, Eloy JA1,2,3,4.](#)

### Abstract

#### **OBJECTIVES/HYPOTHESIS:**

Arterial ligation and embolization are treatment modalities indicated in severe and refractory epistaxis. The purpose of this study was to examine temporal trends and compare outcomes in treatment of hospitalized epistaxis patients with ligation or embolization.

#### **METHODS:**

This retrospective cohort analysis utilized the 2008 to 2013 National Inpatient Sample to identify patients admitted with a primary diagnosis of epistaxis, and an associated procedure code for ligation or embolization.

#### **RESULTS:**

A total of 1,813 cases met the inclusion criteria, with 57.1% undergoing ligation. During the study period, treatment with ligation has trended downward, whereas treatment with embolization has remained constant. Overall, ligated patients were older (64.1 vs. 62.4 years;  $P = 0.027$ ) and had higher rates of congestive heart failure (15.1% vs. 9.8%;  $P = 0.001$ ). No significant differences in rates of chronic pulmonary disease, coagulopathy, liver disease, or hereditary hemorrhagic telangiectasia were observed between cohorts. No differences were observed in rates of blood transfusion, stroke, blindness, or in-hospital mortality; however, ligated patients had lower rates of intubation/tracheostomy (2.8% vs. 5.3%;  $P = 0.009$ ). Ligated patients also experienced shorter hospital stays (3.6 vs. 4.0 days;  $P = 0.014$ ) and incurred lower hospital charges (\$33,029 vs. \$69,304;  $P < 0.001$ ).



#### **CONCLUSION:**

Compared to embolization, ligation is associated with significantly decreased hospital charges and shorter hospital stay, without an increase in complication rates. Counterintuitively, ligation appears to be trending downward nationally in its use relative to embolization.

Laryngoscope. 2017 May;127(5):1017-1020.

#### **4. A novel finding on computed tomography in the diagnosis and localization of cerebrospinal fluid leaks without a clear bony defect.**

[Manes RP1, Ryan MW, Marple BF.](#)

#### **Abstract**

#### **BACKGROUND:**

The purpose of this work was to describe a clinical and radiographic pattern of findings that helps localize the site of spontaneous cerebrospinal fluid (CSF) leaks.

#### **METHODS:**

This study was a retrospective review of CSF leaks treated at the University of Texas Southwestern Medical Center from 2000 to 2009. Data collected included demographics, nature of presentation, imaging findings, intraoperative location of skull-base defect, and clinical follow-up.

#### **RESULTS:**

Forty-six patients' charts were reviewed. Among these patients, 15 did not show a bony skull-base defect on high-resolution computed tomography (CT) scan. They did, however, each show a small area of opacification in the olfactory cleft. In each case, this area of opacification correlated with the site of the CSF leak. Intrathecal fluorescein was not used, except in 2 instances. Successful repair was noted in all patients on follow-up, without evidence of recurrence at the repair site.

#### **CONCLUSION:**

In the absence of a clearly identifiable bony skull-base defect, opacification of the olfactory cleft is a localizing sign in some cases of spontaneous CSF rhinorrhea. Such a finding should direct endoscopic repair, and may serve as the only marker for the specific leak site.

Int Forum Allergy Rhinol. 2012 Sep-Oct;2(5):402-4.



## **5. Chronic sinonasal tract inflammation as a precursor to nasopharyngeal carcinoma and sinonasal malignancy in the United States.**

[Wu EL1, Riley CA1, Hsieh MC2, Marino MJ1, Wu XC2, McCoul ED1,3,4.](#)

### **Abstract**

#### **BACKGROUND:**

Chronic inflammatory states have been linked to the development of malignancy. Chronic rhinosinusitis (CRS) and allergic rhinitis (AR) have been associated with nasopharyngeal carcinoma (NPC) in population-based studies in Asia. A similar association with NPC and paranasal sinus malignancy (PSM) has not been defined in a North American population. Our purpose was to investigate the impact of CRS and AR on the risk of NPC and PSM.

#### **METHODS:**

The Surveillance, Epidemiology, and End Results (SEER)-Medicare linked database was queried as a case-control study of adults  $\geq 65$  years of age. The study cohort included 2009 patients diagnosed with NPC and/or PSM diagnosed between 2003 and 2011, and 2009 propensity-score-matched controls selected from a 5% random sample of Medicare beneficiaries without cancer. CRS and AR were examined as exposures. Multivariable unconditional logistic regression was employed.

#### **RESULTS:**

Overall, NPC and PSM patients were more likely to have previous CRS diagnosis than the controls (9.2% vs 3.0% and 11.1% vs 2.7%, respectively). CRS was associated with greater odds of developing NPC (odds ratio [OR], 3.51; 95% confidence interval [CI], 2.12-5.79) and PSM (OR, 5.30; 95% CI, 3.55-7.92). AR was associated with greater odds of developing NPC (OR, 4.23; 95% CI, 2.96 to 6.06) and PSM (OR, 3.35; 95% CI, 2.49-4.49). The number needed to harm in the exposed population was 311.

#### **CONCLUSIONS:**

CRS and AR are associated with the presence of NPC and PSM in the elderly population of United States. This epidemiologic association will need to be examined for causative pathophysiologic mechanisms and utility in clinical diagnosis .

Int Forum Allergy Rhinol. 2017 May 23.



## **6. Caudal septum surgery techniques reviewed.**

[Cobo R1, Caldas A.](#)

### **Abstract**

#### **PURPOSE OF REVIEW:**

The caudal septum has important functional and aesthetic implications. Deviations in this area can result in important nasal obstruction due not only to blockage of the nasal passage but also to compromise of the internal nasal valve. Cosmetically, alterations in the caudal septum can result in a twisted nasal tip, loss of projection, rotation, and imbalance in the ala-columellar relationship. Contemporary surgical options will be discussed showing how to preserve, reshape, and reinforce the caudal septum to obtain a final looking nose that is not only functional but also aesthetically pleasing.

#### **RECENT FINDINGS:**

Recent publications have shown that cartilage preservation and remodeling techniques can be efficient in the treatment of the caudal septum. Adequate preoperative diagnosis must be made to be able to create a step-wise approach evolving from simple suturing techniques to more complex ones that require the use of grafts to reposition and keep the caudal septum in the midline with an adequate functional and cosmetic outcome.

#### **SUMMARY:**

Adequate management of the caudal portion of the nasal septum is a challenge because of its importance in nasal function and cosmetic final results. There are many surgical options that can be used to correct and align this structure and there is no one single surgical technique that can be used in all cases. A step-wise approach is presented covering the different techniques used today evolving from simple to more complicated ones. The final surgical objective should be cosmetically pleasing noses that function appropriately.

Curr Opin Otolaryngol Head Neck Surg. 2017 Feb;25(1):4-11.



## **7. Postoperative care in endoscopic sinus surgery: a critical review.**

[Eloy P<sup>1</sup>](#), [Andrews P](#), [Poirrier AL](#).

### **Abstract**

#### **PURPOSE OF REVIEW:**

Chronic rhinosinusitis with and without nasal polyps is a common disease affecting people all over the world. Functional endoscopic sinus surgery (FESS) has become the gold standard treatment for medically refractive disease. Postoperative care is recommended by international leaders as an important part of the patient's management. This article is a critical review and discussion focusing on postoperative care, which is based on expert opinion, clinical studies, randomized controlled trials and meta-analysis studies.

#### **RECENT FINDINGS:**

Postoperative care including nasal rinsing, topical corticosteroids, antibiotics and avoidance of nasal packing are unanimously considered to be the cornerstone of best practice following FESS. However, the effectiveness of in-office nasal debridement is still under debate.

#### **SUMMARY:**

There is a lack of consensus regarding the necessity of performing in-office nasal debridement and the majority of clinicians carry out their postoperative care according to experience and their own preference. This is often determined by the extent of surgery performed, the severity of the postoperative inflammation, as well as being dependent on the patient's discomfort, the time constraints associated with postoperative care and the costs associated with additional appointments. Ideally, nasal debridement should be performed by the operating surgeon under endoscopic control both gently and atraumatically.

Curr Opin Otolaryngol Head Neck Surg. 2017 Feb;25(1):35-42.



## **8. Malignant transformation of sinonasal inverted papilloma and related genetic alterations: a systematic review.**

[Re M1, Gioacchini FM2, Bajraktari A1, Tomasetti M3, Kaleci S4, Rubini C5, Bertini A1, Magliulo G6, Pasquini E7.](#)

Schneiderian papillomas are uncommon tumors which may develop within the nasal cavity and comprise three well-defined histological types: sinonasal inverted papilloma (SNIP), exophytic papilloma, and oncocytic papilloma. It is well known the rate of Schneiderian papilloma may also present a malignant degeneration and SNIP represents the most important subgroup in consideration of its frequency and malignant propensity. Although HPV infection is always considered the first event favoring the development of SNIP, however, it is not established as an eventual connection between viral actions and malignant transformation. In fact, different molecular mechanisms are suspected to play a crucial role in this process and, currently, many authors agree that only by improving our knowledge about these mechanisms it will be possible to achieve new and effective targeted therapies. So the aim of this study was firstly to systematically review the literature focusing on different biomarkers that could be implicated in the stages of SNIP malignant degeneration. Secondly, a systematic review with meta-analysis was performed to better define the incidence of sinonasal malignancies originating from Schneiderian papilloma (SNIP, exophytic papilloma, and oncocytic papilloma). Twenty-nine studies comprising a total of 3177 patients were statistically analyzed. Results showed a 9% (95% CI = 7-11) overall rate of malignant transformation from Schneiderian papilloma. In conclusion, this analysis confirmed that the potential malignancy of Schneiderian papilloma should not be underestimated. On the other hand, our review showed the paucity of studies investigating the molecular alterations which may be related with the malignant transformation of SNIP.

Eur Arch Otorhinolaryngol. 2017 Apr 21

## **9. Management of Frontal Sinus Tumors.**

[Selleck AM1, Desai D1, Thorp BD1, Ebert CS1, Zanation AM2.](#)

### **Abstract**

The most common primary tumors of the frontal sinus are osteomas and inverted papillomas, although a variety of other tumors involving this space have been reported. With the advent of new surgical techniques and instrumentation, an endoscopic approach to this region has become feasible. The preoperative assessment and decision making must take into account the complexity of frontal sinus anatomy, tumor type, tumor location, and associated attachments. These procedures allow adequate visualization, tumor removal, and postoperative monitoring,



and preserve fairly normal sinus function. Open techniques may also be required and should be in the surgeon's armamentarium.

Otolaryngol Clin North Am. 2016 Aug;49(4):1051-65.

## **10. Olfaction in patients with allergic rhinitis: an indicator of successful MP-AzeFlu therapy.**

[Klimek L<sup>1</sup>](#), [Poletti SC<sup>2</sup>](#), [Sperl A<sup>1</sup>](#), [Spielhaupter M<sup>1</sup>](#), [Bardenhewer C<sup>1</sup>](#), [Mullol J<sup>3</sup>](#), [Hörmann K<sup>4</sup>](#), [Hummel T<sup>2</sup>](#).

### **Abstract**

#### **BACKGROUND:**

The purpose of this study was to investigate the effect of MP-AzeFlu on olfaction and the interaction between severity of allergic rhinitis and olfactory improvement after therapy.

#### **METHODS:**

A prospective, multicenter, observational study was performed on 47 patients with persistent allergic rhinitis. Duration and severity of allergic rhinitis was diagnosed and classified using the modified Allergic Rhinitis and its Impact on Asthma (ARIA) criteria and the proof of allergen sensitization from positive skin-prick tests, specific immunoglobulin E (IgE) in serum, and nasal provocation response. Patients were treated with MP-AzeFlu (1 spray/nostril twice daily) over 3 months. Olfactory function was assessed at baseline and at 1 and 3 months of therapy using the "Sniffin' Sticks" test. In addition, a nasal symptom score was recorded on a visual analog scale (VAS) at each given time-point.

#### **RESULTS:**

MP-AzeFlu was found to be associated with a significant improvement in TDI score, from 23.7 at baseline to 34.2 at 1 month ( $p < 0.001$ ) and 37.1 at 3 months ( $p < 0.001$ ) of treatment. Furthermore, a highly significant improvement of symptoms over time ( $p < 0.001$ ; VAS at baseline: 84.3; 1 month: 32.4; 3 months: 26.2) could be demonstrated. Most importantly, there was a highly significant interaction between the severity of allergic rhinitis and olfactory function ( $p < 0.001$ ) and VAS ( $p < 0.001$ ).

#### **CONCLUSION:**

MP-AzeFlu is associated with olfactory improvement in persistent allergic rhinitis patients. Further, the modified ARIA severity classification is an indicator of patients' olfactory function. Moreover, assessment of olfaction seems to be a reliable indicator of the clinical success of antiallergic/antiinflammatory therapy .

Int Forum Allergy Rhinol. 2017 Mar;7(3):287-292.