



Reader Digest

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1. Usefulness of three-dimensional computed tomographic anatomy in endoscopic frontal recess surgery.

[Farneti P1, Riboldi A2, Sciarretta V3, Piccin O3, Tarchini P3, Pasquini E4.](#)

Abstract

PURPOSE:

The endoscopic bidimensional vision offered by the endoscope during endoscopic sinus surgery involves difficulty in visualizing surgical field depth which makes it difficult to learn this surgical technique and makes it necessary for the endoscopic surgeon to mentally create a three-dimensional (3D) picture of the paranasal sinuses anatomy. In particular, frontal recess surgery requires good knowledge of its anatomic position, also since it is necessary to use angled endoscopes, which distort the view, and angular instruments which are difficult to use. Purpose of this project is to offer to the endoscopic surgeon a detailed 3D model of the nose and paranasal sinuses with particular attention to the frontal recess.

METHODS:

A 3D reconstruction of the frontal recess and its related structures, starting from computer tomography scans of the human skull, was realized using a professional 3D graphics software.

RESULTS:

A detailed reconstruction of the main structures which contribute to form the frontal recess was obtained. Particular attention was paid when reproducing the agger nasi cells, uncinata process, ethmoidal bulla, anterior ethmoidal cells, frontoethmoidal cells and their anatomic variants.

CONCLUSIONS:

This is the first experience reported in literature regarding this new technique of iconographic didactics applied to endoscopic sinus surgery. It represents a new frontier, which surpasses and integrates the previous didactic techniques to help the surgeon to mentally create a 3D image of the paranasal sinuses.

2016 May 18 Surg Radiol Anat.



2. Our Approach to Adult Patients With Epistaxis.

[Eryilmaz A1, Günel C, Başal Y, Başak S.](#)

Abstract

Epistaxis is one of the most frequently encountered emergency problems in our country, as it is throughout the world. In epistaxis, the benefits of implementing clinical guidelines are evident in both daily practice and medical education. In this article, the authors aimed to present their approach to adult patients with epistaxis and to share their experience, which considered the life quality of the patients to be at the forefront, based on some of their patients. In management of epistaxis, the implementation of the simplest method, minimally affecting the life quality of the patient, may be easier with a stepped approach. The authors consider that the stepped approach that they have implemented and presented in their study may lead to using less invasive methods and may accordingly improve the life quality of the patient.

J Craniofac Surg. 2016 May;27(3):e298-301.

3. Attention-deficit/hyperactivity disorder-related symptoms improved with allergic rhinitis treatment in children.

[Yang MT1, Chen CC, Lee WT, Liang JS, Fu WM, Yang YH.](#)

Abstract

BACKGROUND:

Increased prevalence of attention-deficit/hyperactivity disorder (ADHD) in children with allergic rhinitis (AR) has been reported. Our previous study showed that children with untreated AR had higher ADHD scores than did the controls.

OBJECTIVE:

This prospective follow-up study aimed to investigate whether elevated ADHD scores in children with AR could be decreased by AR treatment.

METHODS:

Sixty-eight children with AR (age range, 6-14 years) and who were drug naive were enrolled and evaluated by AR symptom score, ADHD symptom scores, and computerized continuous performance test, before and after AR therapy, which included nonpharmacologic intervention, oral antihistamines, and topical steroids. Thirty-one age-matched controls and 13 children with pure ADHD were also enrolled for comparison. The relationship between the AR and ADHD score change was



analyzed by a partial correlation test, and univariate and multivariate linear regression models were applied to investigate possible predictors for the improvement of ADHD scores by AR treatment.

RESULTS:

AR symptom scores in children with AR decreased significantly after treatment ($p < 0.001$), and their ADHD scores also decreased significantly ($p < 0.001$). An improved AR symptom score was positively correlated with improved detectability ($r_p = 0.617$, $p = 0.001$) and commission error ($r_p = 0.511$, $p = 0.011$). Significant predictors for the improvement of ADHD scores included age, AR drugs, AR subtypes, and multiple atopic diseases ($p_s < 0.05$).

CONCLUSION:

Higher ADHD scores in children with AR compared with healthy controls decreased significantly with AR treatment. For children with AR and borderline ADHD symptoms, who do not meet full ADHD diagnostic criteria, we recommend initially treating their AR and monitoring improvement of ADHD symptoms

Am J Rhinol Allergy. 2016 May;30(3):209-14.

4. The Role of Surgery in Management of Samter's Triad: A Systematic Review.

[Adelman J1, McLean C1, Shaigany K1, Krouse JH2.](#)

Abstract

OBJECTIVE:

Aspirin-exacerbated respiratory disease (AERD) represents a severe form of chronic rhinosinusitis (CRS) characterized by nasal polyposis, bronchial asthma, and aspirin intolerance. This syndrome, known as Samter's triad, is more difficult to manage than routine CRS and poses a challenge to the treating clinician. We performed a systematic review of the literature to determine the role of endoscopic sinus surgery in patients with AERD who are on adjuvant medical therapies.

DATA SOURCES:

PubMed, Embase, Web of Science, Cochrane Database of Systematic Reviews, Cochrane Database of Abstracts of Reviews of Effects, Cochrane Central Register of Controlled Trials, Cochrane Methodology Register, Cochrane Technology Assessments, Cochrane Economic Evaluations, Cochrane Groups, and Clinicaltrials.gov.



REVIEW METHODS:

A systematic review of the literature was performed using the 2009 PRISMA guidelines. Studies with both preoperative and postoperative data for patients with AERD who underwent sinus surgery were considered appropriate for inclusion. Publications were written in English, included patients aged 18 years or older, and had a minimum follow-up of 3 months.

RESULTS:

Eighteen studies met criteria for inclusion in our review. The primary outcome was change in symptom profile as measured by sinonasal and asthma symptom scores. Most studies demonstrated improvement in sinus- and asthma-related symptoms and quality-of-life measures after endoscopic sinus surgery.

CONCLUSION:

This review, which did not exclude the use of concomitant medical therapy, suggests that surgery is beneficial in AERD management. Evidence demonstrates improvement in sinonasal and asthma symptom severity and frequency, radiographic and endoscopy scores, and quality of life after surgery.

Otolaryngol Head Neck Surg. 2016 Apr 12.

5. Endoscopic Management of Vascular Sinonasal Tumors, Including Angiofibroma.

[Snyderman CH1, Pant H2.](#)

Abstract

The greatest challenge in the surgical treatment of angiofibromas is dealing with the hypervascularity of these tumors. Staging systems that take into account the vascularity of the tumor may be more prognostic. A variety of treatment strategies are used to deal with the vascularity of angiofibromas, including preoperative embolization, segmentation of the tumor into vascular territories, use of hemostatic tools, and staging of surgery. Even large angiofibromas with intracranial extension and residual vascularity can be successfully managed by a skull base team using endoscopic techniques.

Otolaryngol Clin North Am. 2016 Jun; 49(3):791-807



6. Low-Grade Epithelial Proliferations of the Sinonasal Tract.

[Bullock MJ1,2.](#)

Abstract

Low-grade epithelial proliferations of the sinonasal tract include Schneiderian papillomas, respiratory epithelial adenomatoid hamartoma, seromucinous hamartoma and low-grade non-intestinal adenocarcinoma. There is considerable overlap in their clinical presentation, endoscopic appearance, and imaging features. Although well-described diagnostic criteria exist, a definitive diagnosis may be difficult to reach on a small biopsy. Schneiderian papillomas are divided into fungiform, inverted, and oncocytic types, each with characteristic clinical and morphological features. The latter two may progress to malignancy. The majority are still considered to be HPV-related. Two lesions are designated as hamartomas, but their pathogenesis remains uncertain, with inflammatory and neoplastic origins proposed. Respiratory epithelial adenomatoid hamartoma is increasingly being recognized for its association with chronic rhinosinusitis and olfactory cleft site of origin. Seromucinous hamartoma has gained attention in recent years and overlaps with both respiratory epithelial adenomatoid hamartoma and low-grade non-intestinal adenocarcinoma. Controversy surrounds their distinction, particularly from low-grade adenocarcinoma. The latter generally is cured by complete excision, with a 26 % risk of recurrence but rare metastases and deaths from disease.

Head Neck Pathol. 2016 Mar; 10(1):47-59

7. Sinonasal inverted papilloma: From diagnosis to treatment.

[Lisan Q1, Laccourreya O1, Bonfils P2.](#)

Abstract

Inverted papilloma is a rare sinonasal tumor that mainly occurs in adults during the 5th decade. Three characteristics make this tumor very different from other sinonasal tumors: a relatively strong potential for local destruction, high rate of recurrence, and a risk of carcinomatous evolution. Etiology remains little understood, but an association with human papilloma virus has been reported in up to 40% of cases, raising the suspicions of implication in the pathogenesis of inverted papilloma. Treatment of choice is surgery, by endonasal endoscopic or external approach, depending on extension and tumoral characteristics. Follow-up is critical, to diagnose local relapse, which is often early but may also be late. The seriousness of this pathology lies in its association with carcinoma, which may be diagnosed at the outset or at recurrence during follow-up. It is important to diagnose recurrence to enable early treatment, especially in case of associated carcinoma or malignancy. A comprehensive review of the international literature was performed on PubMed and Embase, using the following search-terms: "sinonasal" [All Fields] AND ("papilloma,



inverted" [MeSH Terms] OR ("papilloma" [All Fields] AND "inverted" [All Fields]) OR "inverted papilloma" [All Fields] OR ("inverted" [All Fields] AND "papilloma" [All Fields])). We reviewed all articles referring to sinonasal inverted papilloma published up to January 2015. The present article updates the state of knowledge regarding sinonasal inverted papilloma.

Eur Ann Otorhinolaryngol Head Neck Dis. 2016 Apr 1. pii: S1879-7296(16)30054-0.

8. Medical treatment of traumatic anosmia.

[Jiang RS1](#), [Twu CW2](#), [Liang KL3](#).

Abstract

OBJECTIVES:

To study the effects of zinc and steroid in the treatment of traumatic anosmia.

STUDY DESIGN:

A prospective, randomized study.

SETTING:

Academic medical center.

SUBJECTS AND METHODS:

Patients with a clear history of loss of smell after head injury and whose thresholds were -1 measured by the phenyl ethyl alcohol threshold test were included in this study from January 2010 to May 2013. They were randomly divided into 4 groups. Patients in group 1 were treated with zinc gluconate for a month and high-dose prednisolone with tapering for 2 weeks. Those in group 2 took only zinc gluconate, and those in group 3 took only prednisolone. Patients in group 4 did not take any medicine. All patients were followed up by phenyl ethyl alcohol threshold testing, and magnetic resonance imaging was performed to measure the volume of olfactory bulbs.

RESULTS:

Thirty-nine patients in group 1, 35 in group 2, 34 in group 3, and 37 in group 4 completed the study. The recovery of olfactory function was observed in 11 patients (28.2%) in group 1, in 9 (25.7%) in group 2, in 4 (11.8%) in group 3, and in 1 (2.7%) in group 4. The recovery rates of olfactory function of groups 1 and 2 were significantly higher than the recovery rate of group 4. The volume of olfactory bulbs was not significantly different between those with and without improved olfactory function.



CONCLUSION:

Our results show that zinc gluconate has a promising effect in treating traumatic anosmia.

Otolaryngol Head Neck Surg. 2015 May;152(5):954-8.

9. Impact of partial and total tonsillectomy on adenoid regrowth.

[Babademez MA1, Gul F2, Muz E3, Muderris T4, Kale H4.](#)

Abstract

OBJECTIVES/HYPOTHESIS:

To compare the rates of adenoid regrowth in children who underwent total tonsillectomy and adenoidectomy (TA) versus partial intracapsular tonsillectomy and adenoidectomy (ITA).

STUDY DESIGN:

Retrospective cohort study.

METHODS:

A medical database was used to retrieve the records of 5,120 children younger than 12 years of age who had an adenoidectomy in combination with a tonsil surgery between April 2008 and September 2014. Children who had symptomatic obstructive sleep apnea without a history of recurrent tonsillitis, and underwent an endoscopic adenoidectomy with a microdebrider, in addition to a traditional tonsillectomy or partial tonsillectomy with coblation, were included in the study. Adenoid regrowth was evaluated in the children who completed at least a 1-year follow-up. The sizes of adenoids were subjectively graded and reported based upon a numerical scale.

RESULTS:

In total, 1,504 and 1,340 children met the inclusion, and were comprised of ITA and TA groups, respectively. Adenoid regrowth was seen in 98 (7.3%) children in the TA group after 1-year follow-up. Symptomatic adenoid regrowth was seen in 19 (1.4%) children in the TA group. In the ITA group, although 71 (4.7%) children had adenoid regrowth, only one (0.06%) reached grade 3 hypertrophy that could be attributed to nasal obstruction at 1-year follow-up. Comparison of the regrowth rates of both groups at the end of the 1-year follow-up period showed a statistically significant difference ($P < .001$).



CONCLUSIONS:

ITA seems to be a safe procedure with a low incidence of regrowth of adenoid tissue in children with adenotonsillar hypertrophy when compared to TA.

LEVEL OF EVIDENCE:

4. Laryngoscope, 2016.

Laryngoscope. 2016 Apr 14.

10. Impact of Minimally Invasive Multilevel Surgery on Mild/Moderate OSA.

[Salapatas AM1](#), [Bonzelaar LB1](#), [Hwang MS1](#), [Goyal V1](#), [Bakhsheshian J2](#), [Ellenberg EC3](#), [Friedman M4](#).

Abstract

OBJECTIVE:

To assess 10-year data on subjective and objective improvements in patients with mild to moderate obstructive sleep apnea (OSA) after single-stage multilevel minimally invasive surgery.

STUDY DESIGN:

Case series with chart review.

SETTING:

Tertiary academic center.

SUBJECTS AND METHODS:

A chart review was conducted of 601 patients diagnosed with mild to moderate OSA who were treated with single-stage multilevel minimally invasive surgery from January 2005 to January 2015. Patients were treated with a combination of procedures that included various nasal procedures, palatal stiffening, and radiofrequency tongue base reduction. Demographics and objective and subjective parameters were collected; all patients were included who had a mean of 6 months of follow-up data available. Pre- and postoperative values were compared.

RESULTS:



A total of 601 patients were included in this study (67.0% male; age, 38.2 ± 9.4 years; mean body mass index, 27.4 ± 4.1 kg/m²). Mean apnea-hypopnea index decreased significantly from 19.8 ± 5.9 events per hour preoperatively to 12.7 ± 7.6 events per hour postoperatively ($P < .0001$), with a 45.9% rate of "surgical success." Mean daytime sleepiness decreased significantly from 12.1 ± 4.8 to 6.8 ± 2.9 ($P < .001$) per the Epworth Sleepiness Scale. Mean snoring intensity showed a significant decrease from 8.8 ± 0.8 to 4.0 ± 2.1 ($P < .001$).

CONCLUSION:

Ten-year experience shows that treatment with single-stage multilevel minimally invasive surgery decreases objective and subjective measures in selected patients with mild to moderate OSA. Although not curative, this technique helps to control symptoms in a population of patients who refused CPAP.

Otolaryngol Head Neck Surg. 2016 Jun 14.