Pan Arab Journal of Rhinology PAJR
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Reader Digest
Digested by Dr. Tarek Kandil, MD. Consultant, students Hospital, Cairo University

1. The Endoscopic Prelacrimal Recess Approach to the Pterygopalatine Fossa and Infratemporal Fossa.

Gao L1, Zhou L, Dai Z, Huang X.

Abstract

PURPOSE:

The authors studied the anatomic importance of the endoscopic prelacrimal recess approach (PLRA) to the pterygopalatine fossa (PPF) and infratemporal fossa (ITF).

METHODS:

Ten adult heads (20 sides) from cadavers fixed in formalin were dissected using the PLRA. Anatomic dissections were detailed and several crucial landmarks measured.

RESULTS:

Identification of the infraorbital neurovascular bundle is the crucial step for the detection of other branches of the maxillary artery. The distance from the base of columella to inferior orifice of the nasolacrimal duct, sphenopalatine foramen, pterygold canal, foramen rotundum, foramen ovale was (32.97±3.44), (63.93±4.52), (66.81±3.44), (68.13±4.43), and (85.23±6.25)mm, respectively. The PLRA can be used to expose the entire maxillary sinus and PPF, most parts of the ITF (lateral pterygoid muscle, foramen ovale, mandibular division of the trigeminal nerve, and its divisions), maxillary artery and its branches, and the superior part of the medial pterygoid muscle (upon the floor of the maxillary sinus). The lateral boundary can be reached to visualize the temporomandibular joint and vertically oriented temporalis muscle.

CONCLUSION:

Use of the PLRA to the PPF and ITF offers a clear visual field, wide range of exposure, as well as preservation of the integrity of nasal structures.

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2. Nasal packing in sphenopalatine artery bleeding: therapeutic or harmful?

Sireci F1, Speciale R2, Sorrentino R3, Turri-Zanoni M4, Nicolotti M3, Canevari FR3.

Abstract

The aim of this study is to present our management protocol of sphenopalatine artery bleeding, demonstrating that nasoendoscopic cautery (NC) was a more effective method than the nasal packing, in terms of shorter inpatient stay and reduced complications rate. We present ten posterior epistaxis not resolved by nasal packing. Tabotamp® was placed in the area of sphenopalatine foramen and/or in those parts of the posterior nasal cavity, where it was suspected that bleeding origins. In two cases, the bleeding was resolved in this way, instead eight cases needed of subperiosteal cauterization of sphenopalatine artery by Dessi bipolar forceps (MicroFrance®). 4 of these 8 patients evidenced a remarkable bleeding removing nasal packing (Hb before-nasal packing = 15 ± 0.69 versus Hb after-nasal packing = 13.3 ± 0.81; t student = 2.94; p value = 0.025). These four patients showed a deviation of the nasal septum ipsilateral to epistaxis, and according our experience, a traumatism of sphenopalatine area can be caused by Merocel® nasal packing in this condition. During follow-up, no recurrences of nasal bleeding have been observed in such patients. Nasal packing must be considered if posterior epistaxis is severe, but always taking into account the specific anatomy of patient and in particular septal spurs that can further compromise sphenopalatine artery. In our experience, the endoscopic endonasal cauterization of the sphenopalatine branches represented a safe and effective procedure .

Eur Arch Otorhinolaryngol. 2017 Mar;274(3):1501-1505.

3. Back-and-forth endoscopic septoplasty: analysis of the technique and outcomes.

Trimarchi M1, Bellini C, Toma S, Bussi M.

Abstract

BACKGROUND:

To describe our clinical experience in 218 consecutive patients undergoing endoscopic back-and-forth septoplasty (EBFS), examining surgical indications, technique, and follow-up.

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METHODS:

From January 2005 to November 2008, 218 patients underwent EBFS at the Department of Otorhinolaryngology, San Raffaele Hospital, Milan, Italy. The indication for EBFS in this series was nasal airway obstruction (NAO). Patients were studied with nasal rigid endoscopy and in some cases computed tomography (CT) was used to exclude rhinosinusitis. The most common concomitant diagnoses included allergic rhinitis and turbinate hypertrophy. EBFS facilitates the interruption of perichondrial and periosteal bridges, which are more represented in the anterior portion of the septum between the caudal quadrangular cartilage and the vomeropremaxillary crest. Septal splints were positioned. No nasal packing was required.

RESULTS:

No cases required conversion to a traditional headlight approach, and no intraoperative complications were encountered. Intraoperative mucosal microlacerations occurred in 77.98% of cases; suturing was required in only 8.25% of cases. Of 218 patients, 74.77% experienced resolution of NAO, while 16.06% experienced only improvement; 9.17% noted the persistence of symptoms. Complications included transient dental pain/hypesthesia (6.88%), septal hematoma (5.04%), synechiae formation (2.29%), epistaxis (1.83%), septal perforation (1.83%), cheek swelling (0.45%), and septal abscess (0.45%).

CONCLUSION:

EBFS as a variation of endoscopic septoplasty (ES) represents a viable procedure with good outcomes and a low rate of complications. The technique allows lysis of tissue fibers while preserving the integrity of mucosa at the critical area using less force and reduces the probability of mucosal tears, based on embryologic knowledge of anatomical dissection

Int Forum Allergy Rhinol. 2012 Jan-Feb;2(1):40-4.

4. Is Surgical Navigation Useful During Closed Reduction of Nasal Bone Fractures?

Kim ST1, Jung JH, Kang IG.

Abstract

OBJECTIVE:

To report the case of a 42-year-old woman with a nasal bone fracture that was easily treated using a surgical navigation system.

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METHODS:

In this clinical report, the authors suggest that intraoperative surgical navigation systems are useful diagnostically and for localizing sites of nasal bone fractures exactly.

RESULTS:

The patient underwent successful closed reduction of the nasal bone fracture.

CONCLUSIONS:

Surgical navigation is a useful tool for identifying nasal bone fracture locations and for guiding closed reduction. Surgical navigation is recommended when nasal bone fractures are complicated or not well reduced using the ordinary method

J Craniofac Surg. 2017 Jan 31.

5. Dietary patterns and the risk of rhinitis in primary school children: a prospective cohort study.

Liu X1, Wong CC1, Yu IT1,2, Zhang Z1, Tan L1, Lau AP3, Lee A1, Yeoh EK1, Lao XQ1.

Abstract

This study was to investigate the association between dietary patterns and rhinitis in primary school children. 1,599 students without rhinitis at baseline survey were selected from a primary school children cohort. Information on food consumption, respiratory symptoms, and confounders was collected using questionnaires. Dietary patterns were defined using principal component analysis. Logistic regression was performed to calculate odds ratio (OR) with 95% confidence intervals (95% CI). The incidence of rhinitis during 12 months follow-up was 21.2%. Three patterns were extracted and labeled as pattern I, II and III. Dietary pattern II which had higher factor loadings of legumes, butter, nuts and potatoes was associated with an increased risk of rhinitis (OR: 1.34, 95% CI: 1.01-1.87) when the highest tertile of pattern score was compared to the lowest tertile, after adjusted for confounders. Besides, every 1-unit increase of score of pattern II was also associated with an increased risk of rhinitis (OR: 1.19, 95% CI: 1.05-1.35). Neither pattern I nor Pattern III was observed to be associated with risk of rhinitis. A diet with higher levels of consumption of legumes, butter, nuts and potatoes may increase the risk of allergic rhinitis in primary school children.

Sci Rep. 2017 Mar 15;7:44610.

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6. Acute Vision Loss Following Endoscopic Sinus Surgery.

Byrd S1, Hussaini AS1, Antisdel J1.

Abstract

A 41-year-old female with a history of uterine cancer and Celiac and Raynaud's Disease presented to our institution with frequent migraines and nasal congestion. She underwent functional endoscopic sinus surgery (FESS) and experienced acute unilateral vision loss postoperatively. Rapid recognition of the etiology and effective treatment are paramount given the permanent and irreversible vision loss that can result. Arterial vasospasm following FESS is rare. Patients with autoimmune diseases have perhaps an increased risk for vasospasm secondary to an increased vasoreactive profile. We present the first documented case of nitroglycerin sublingual therapy to successfully treat ophthalmic artery vasospasm following FESS. Nitroglycerin sublingual therapy is a promising treatment for ophthalmic vasospasm secondary to its ability to cross the blood-ocular barrier, its rapid onset of action, and its ability to promote relaxation of vascular smooth muscle.

Case Rep Otolaryngol. 2017;2017:4935123.

7. Advances in Absorbable Biomaterials and Nasal Packing.

Massey CJ1, Singh A2.

Abstract

Nasal biomaterials have been developed to improve postoperative outcomes after functional endoscopic sinus surgery (FESS). These products have been designed to overcome certain common complications in FESS, and to maximize patient comfort. This article evaluates the performance of nonabsorbable and absorbable packing with respect to these outcomes. The collected trials suggest superior performance of bioabsorbable packs compared with absorbable packs with respect to patient comfort. For hemostasis and wound healing, variation in performance metrics makes interstudy comparison difficult. Before further trials are conducted, consensus must be reached among rhinologists as to the proper method of evaluating these products.

Otolaryngol Clin North Am. 2017 Mar 9.

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8. Imaging in Juvenile Nasopharyngeal Angiofibroma: Clinical Significance of Ramharan and Chopstick Sign.

Janakiram TN1, Sharma SB1, Samavedam UC1, Deshmukh O1, Rajalingam B2.

Abstract

Imaging plays an important role in the diagnosis, staging and prognosis of JNA. Certain radiological changes as seen on CECT were observed to be consistent in our case series. This study analysed preoperative and postoperative CECT of large series of JNA patients to evaluate the sites and pattern of spread of tumor. We evaluated the clinical significance of pterygoid wedge in preoperative and postoperative imaging and thus elucidating two new radiological signs. Retrospective analysis of the pre operative and post operative imaging data of 242 patients with JNA. The findings in the scan were clinically correlated with the endoscopic intraoperative findings. Preoperative evaluation of the pterygoid wedge revealed widening on the involved side in 99.1% of our cases which is 1.8 times greater compared to the uninvolved side. The possibility of residual/recurrent tumor was found to be significantly higher in those where the pterygoid wedge was not removed by drilling ($p < 0.001$) Drilling of the pterygoid wedge intra operatively, reduced the rate of residual/recurrence from 31.9 to 3.07%. Widening of the pterygoid wedge seen in the preoperative CECT, referred as RAM HARAN sign occurs in JNA. It has a significant diagnostic value as a radiological sign in JNA. Drilling of the pterygoid wedge intraoperatively reduces the rate of recurrence of JNA. Appearance of the two pterygoid plates on postoperative CECT, as two parallel lines, referred as Chopstick sign, has a remarkable prognostic value as a radiological sign in JNA.

Indian J Otolaryngol Head Neck Surg. 2017 Mar;69(1):81-87.

9. Endoscopic nasopharyngectomy in recurrent nasopharyngeal carcinoma: a case series, literature review, and pooled analysis.

Vlantis AC1, Lee DL1,2, Wong EW1, Chow SM1, Ng SK1, Chan JY1.

Abstract

BACKGROUND:

To critically evaluate the use of endoscopic nasopharyngectomy in the treatment of recurrent nasopharyngeal carcinoma (NPC) through a case series, systematic literature review, and pooled analysis.

METHODS:

A case series of 18 patients combined with systematic literature review and pooled analysis of PubMed, Web of Science, and Scopus search, identifying 576 papers. After excluding 307 papers

as search engine duplicates, only 16 of the remaining papers had adequate patient data to be included.

RESULTS:

Our case series of 18 patients had a 2-year disease-free survival (DFS) and overall survival (OS) of 90.0% and 100%, respectively. The pooled analysis of 300 patients that had an endoscopic resection of recurrent NPC showed recurrence-free survival and overall survival were 85.8% and 82.9%, respectively. Most, 56.1%, were recurrent T1 lesions. Resection margins were negative in 90.2% of patients. Local recurrence occurred in 20.1% of patients. Major complications occurred in 13.6% of patients. The mean hospital stay was 5.8 days, the mean operating time was 228.3 minutes, and the mean operative blood loss was 163 mL.

CONCLUSION:

Endoscopic resection of recurrent NPC occurs with low surgical morbidity. However, further long-term evaluation with longer follow-up data is needed to evaluate if the survival data is comparable or better than open approaches.

Int Forum Allergy Rhinol. 2016 Nov 16.

10. Does positive airway pressure therapy improve olfactory function?

Koseoğlu S1, Derin S1, Yilmaz M2, Kutlu G2, Sahan M1.

Abstract

BACKGROUND:

Olfactory function deteriorates in patients with severe obstructive sleep apnea syndrome (OSAS). The effect of positive airway pressure (PAP) therapy on olfactory function has not been investigated before. In this study, we aimed to investigate the role of PAP therapy on olfactory impairment in patients with OSAS.

METHODS:

Thirty patients who had OSAS and planned for PAP therapy were included in the study. All participants underwent a detailed otorhinolaryngological examination and polysomnography. The "Sniffin' Sticks" test was used for the analysis of olfactory function. The participants underwent the smell test before the PAP therapy, and about 3 months after the therapy. Pretreatment and posttreatment results were compared.

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RESULTS:

The pretreatment and the posttreatment apnea-hypopnea index (AHI) were 57.6 ± 29.8/hour and 9.5 ± 7.9/hour, respectively. Odor threshold (OT), odor discrimination (OD), odor identification (OI), and threshold-discrimination-identification (TDI) scores significantly increased after PAP therapy ($p = 0.001$, $p = 0.002$, $p = 0.001$, and $p = 0.001$, respectively). The pretreatment and posttreatment total TDI scores were 28.48 ± 4.71 and 32.50 ± 3.88, respectively ($p = 0.001$).

CONCLUSION:

This study demonstrates olfactory dysfunction in patients with OSAS. We achieved a significant improvement in olfactory function of patients with OSAS after PAP therapy. Further studies are needed to illuminate the pathogenesis of olfactory dysfunction in OSAS, and the role of PAP therapy on olfactory improvement.

Int Forum Allergy Rhinol. 2017 Mar 8.