Pan Arab Rhinology Society
PARS Reader's Digest

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

1. Diagnostics and management of choanal atresia.

Baumann I1, Sommerburg O2, Amrhein P3, Plinkert PK4, Koitschev A3.

Abstract

Choanal atresia is a rare malformation that represents a special challenge. While bilateral choanal atresia usually needs to be surgically treated within a few days of birth, the intervention for one-sided choanal atresia can be postponed for years. Treatment planning requires adequate imaging (CT or MRI), which also serves to exclude other skull base malformities. Surgical treatment currently focuses on transnasal endoscopic techniques. Simultaneous resection of the parts of the vomer involved in the atresia seems to be important surgical success. Postoperative stenting is still controversially discussed. Postoperative application of corticosteroid nasal sprays and saline nasal rinsing for several weeks is of great importance. Due to the rarity of the diagnosis, the absence of prospective randomized controlled trials does not allow definitive statements regarding the optimal surgical technique or stenting.

HNO. 2018 Mar 2

2. An Algorithm for the Initial Management of Nasal Trauma.

Hoffmann JF1.

Abstract

Nasal fractures are the most common of all facial skeletal injuries. Untreated, these fractures frequently lead to functional and aesthetic problems. Careful history and physical assessment are critical to determine the extent of injury and to determine proper management. Critical aspects of assessment are discussed, as is the role of imaging in management. The unique aspects of pediatric nasal fractures and their management are reviewed. Fractures are classified based on the degree of injury and the involvement of the septum. A simple treatment algorithm is provided to help guide the selection of optimal treatment techniques. A review of instrumentation and treatment techniques is provided. The goal of treatment is to restore the nose to its preinjury shape and function and to minimize the need for secondary septorhinoplasty.

Facial Plast Surg. 2015 Jun;31(3):183-93

3. Topical Tranexamic Acid Compared With Anterior Nasal Packing for Treatment of Epistaxis in Patients Taking Antiplatelet Drugs: Randomized Controlled Trial.

Zahed R1, Mousavi Jazayeri MH2, Naderi A3, Naderpour Z4, Saeedi M5.

Abstract

OBJECTIVE:

We evaluated the efficacy of topical application of the injectable form of tranexamic acid (TXA) compared with anterior nasal packing (ANP) for the treatment of epistaxis in patients taking antiplatelet drugs (aspirin, clopidogrel, or both) who presented to the emergency department (ED).

METHODS:

A randomized, parallel-group clinical trial was conducted at two EDs. A total of 124 participants were randomized to receive topical TXA (500 mg in 5 mL) or ANP, 62 patients per group. The primary outcome was the proportion of patients in each group whose bleeding had stopped at 10 minutes. Secondary outcomes were the rebleeding rate at 24 hours and 1 week, ED length of stay (LOS), and patient satisfaction.

RESULTS:

Within 10 minutes of treatment, bleeding was stopped in 73% of the patients in the TXA group, compared with 29% in the ANP group (difference = 44%, 95% confidence interval, 26% to 57%; $p < 0.001$). Additionally, rebleeding was reported in 5 and 10% of patients during the first 24 hours in the TXA and the ANP groups, respectively. At 1 week, 5% of patients in the TXA group and 21% of patients in the ANP group had experienced recurrent bleeding ($p = 0.007$). Patients in the TXA group reported higher satisfaction scores (median [interquartile range {IQR}], 9 [8-9.25]) compared with the ANP group (median [IQR] = 4 [3-5]; $p < 0.001$). Discharge from the ED in <2 hours was achieved in 97% of patients in the TXA group versus 13% in the ANP group ($p < 0.001$). There were no adverse events reported in either group.

CONCLUSIONS:

In our study population, epistaxis treatment with topical application of TXA resulted in faster bleeding cessation, less rebleeding at 1 week, shorter ED LOS, and higher patient satisfaction compared with ANP.

Acad Emerg Med. 2018 Mar;25(3):261-266.

4. Adenoid Vegetation in Children with Allergic Rhinitis.

Bozkurt G1, Dizdar SK2, Korkut AY1, Coşkun BU1.

Abstract

Objective:

Pediatric patients with nasal obstruction due to adenoid vegetation (AV) can also encounter allergic rhinitis (AR) as a comorbidity. The aim of the study was to estimate the incidence of mite sensitization and its effect on adenoid size in children who underwent adenoidectomy.

Methods:

This prospective randomized study conducted between August and September 2014 included 84 children. Skin Prick Test (SPT) for inhalant allergens was preoperatively applied to all children who underwent adenoidectomy for nasal obstruction. Children were divided into two study groups: AV only (Group I) (n=52) and AV with Dermatophagoides Pteronyssinus and/or D. farinae allergy (Group II) (n=32). Postoperative specimen volumes, visual analogue scale (VAS) scores, and adenoid volumes measured using flexible fiberoptic nasopharyngolaryngoscopy were compared between the two groups.

Results:

Postoperative specimen volume measures were higher in Group II compared with those in Group I ($p<0.05$). Furthermore, in preoperative endoscopic examination, adenoid volume measures were higher in Group II compared with those in Group I ($p<0.05$). Pre and postoperative VAS scores in SPT+ group were higher in the Group II ($p<0.05$) than those in Group I.

Conclusion:

We observed that children with AR tend to have an early onset of symptoms of adenoid hypertrophy. We believe that focusing on the management of role of allergy regarding these early symptoms will reduce the need for surgery in a large number of cases. We suggest that SPT must be performed in all children with AV and adenoid examination should not be neglected in children with AR.

Turk Arch Otorhinolaryngol. 2015 Dec;53(4):168-172.

5. Fungal Sinusitis.

Raz E1, Win W1, Hagiwara M1, Lui YW1, Cohen B1, Fatterpekar GM2.

Abstract

Fungal sinusitis is characterized into invasive and noninvasive forms. The invasive variety is further classified into acute, chronic and granulomatous forms; and the noninvasive variety into fungus ball and allergic fungal sinusitis. Each of these different forms has a unique radiologic appearance. The clinicopathologic and corresponding radiologic spectrum and differences in treatment strategies of fungal sinusitis make it an important diagnosis for clinicians and radiologists to always consider. This is particularly true of invasive fungal sinusitis, which typically affects immuno compromised patients and is associated with significant morbidity and mortality. Early diagnosis allows initiation of appropriate treatment strategies resulting in favorable outcome.

Neuroimaging Clin N Am. 2015 Nov;25(4):569-76

6. Dexmedetomidine improves the quality of the operative field for functional endoscopic sinus surgery: systematic review.

Snidvongs K1, Tingthanathikul W2, Aeumjaturapat S1, Chusakul S1.

Abstract

BACKGROUND:

Intra-operative bleeding diminishes visualisation during functional endoscopic sinus surgery and can cause unfavourable outcomes. Dexmedetomidine is a potent alpha-2 agonist, with sympatholytic effects. This systematic review aimed to assess whether dexmedetomidine decreases intra-operative bleeding and improves operative field quality.

METHODS:

All randomised, controlled trials that assessed the ability of dexmedetomidine to provide good operative fields for functional endoscopic sinus surgery were identified from Medline and Embase. The outcomes of interest were: operative field quality, intra-operative bleeding, operative time and adverse events.

RESULTS:

Five studies (254 patients) met the inclusion criteria. When compared to saline, dexmedetomidine improved the quality of the operative field. The operative time was similar between groups. When compared to other drugs, dexmedetomidine was as effective as esmolol and remifentanil. There were no adverse incidents.

CONCLUSION:

Dexmedetomidine is beneficial in providing good visibility during functional endoscopic sinus surgery. Controlled hypotensive anaesthesia with this medicine decreases intra-operative bleeding and enhances surgical field quality.

J Laryngol Otol. 2015 Jul;129 Suppl 3:S8-13

7. Endoscopic endonasal approach for mass resection of the pterygopalatine fossa.

Plzák J1, Kratochvil V1, Kešner A1, Šurda P2, Vlasák A3, Zvěřina E1.

Abstract

OBJECTIVES:

Access to the pterygopalatine fossa is very difficult due to its complex anatomy. Therefore, an open approach is traditionally used, but morbidity is unavoidable. To overcome this problem, an endoscopic endonasal approach was developed as a minimally invasive procedure. The surgical aim of the present study was to evaluate the utility of the endoscopic endonasal approach for the management of both benign and malignant tumors of the pterygopalatine fossa.

METHOD:

We report our experience with the endoscopic endonasal approach for the management of both benign and malignant tumors and summarize recent recommendations. A total of 13 patients underwent surgery via the endoscopic endonasal approach for pterygopalatine fossa masses from 2014 to 2016. This case group consisted of 12 benign tumors (10 juvenile nasopharyngeal angiofibromas and two schwannomas) and one malignant tumor.

RESULTS:

No recurrent tumor developed during the follow-up period. One residual tumor (juvenile nasopharyngeal angiofibroma) that remained in the cavernous sinus was stable. There were no significant complications. Typical sequelae included hypesthesia of the maxillary nerve, trismus, and dry eye syndrome.

CONCLUSION:

The low frequency of complications together with the high efficacy of resection support the use of the endoscopic endonasal approach as a feasible, safe, and beneficial technique for the management of masses in the pterygopalatine fossa.

Clinics (Sao Paulo). 2017 Oct;72(9):554-561.

8. High-resolution microendoscope imaging of inverted papilloma and normal sinonasal mucosa: evaluation of interobserver concordance.

Parasher AK1, Kidwai SM1, Schorn VJ1, Goljo E1, Weinberg AD2, Richards-Kortum R3, Sikora AG4, Iloreta AM1, Govindaraj S1, Miles BA1.

Abstract

BACKGROUND:

High-resolution microendoscopy (HRME) enables real-time imaging of epithelial tissue. The utility of this novel imaging modality for inverted papilloma has not been previously described. This study examines the ability of otolaryngologists to differentiate between images of inverted papilloma and normal sinonasal mucosa obtained with a HRME.

METHODS:

Inverted papilloma and normal sinonasal mucosa specimens were stained with a contrast agent, proflavine. HRME images were subsequently captured. Histopathological diagnosis was obtained for each sample. Quality-controlled images were used to assemble a training set. After reviewing the training images, 6 otolaryngologists without prior HRME experience reviewed and classified test images.

RESULTS:

Five samples of inverted papilloma and 2 normal sinonasal mucosa samples were collected. Four representative images from each specimen were used for the 28-image test set. The mean accuracy among all reviewers was 89.9% (95% confidence interval [CI], 84.3% to 94.0%). The sensitivity to correctly identify inverted papilloma was 86.7% (95% CI, 79.2% to 92.2%), and the specificity was 92.9% (95% CI, 89.0% to 100.0%). The Fleiss kappa interrater reliability score was 0.80 (95% CI, 0.70 to 0.89).

CONCLUSION:

Inverted papilloma and normal sinonasal mucosa have distinct HRME imaging characteristics. Otolaryngologists can be successfully trained to distinguish between inverted papilloma and normal sinonasal mucosa. HRME is a feasible tool for identification of inverted papilloma. By conducting future in vivo trials, HRME potentially may enable real-time surgical margin determination during surgical excision of inverted papilloma.

Int Forum Allergy Rhinol. 2015 Dec;5(12):1136-40.

9. The clinical observation of NK/T-cell lymphoma of the nasal type.

Turovsky AB1, Shostak NA2, Artemyev ME1, Khuazheva NK3, Bessarab TP4, Chumakov PL1, Artemieva-Karelova AV1.

Abstract

The objective of the present work was to present the results of the clinical analysis of the patient presenting with natural killer (NK)/T-cell lymphoma of the nasal type. We undertook the analysis of the medical documentation concerning the case of interest. It was shown that the development of progressive perforation of the nasal septum and the pronounced destructive changes in the intranasal and adjacent structures following the endonasal surgical interventions made necessary differential diagnostics between the condition under consideration and certain latent disorders (such as Wegener's granulomatosis, leprosy, syphilis, leishmaniasis, dirofilariasis tuberculosis, etc.). The study has demonstrated that the negative results of the analysis imply the necessity of special attention to the possibility of development of oncological diseases including hematological disorders (e.g. NK/T-cell lymphoma) and the repeat careful follow-up examination of the patients by the experienced experts.

Vestn Otorinolaringol. 2017;82(4):64-68.

10. Tobacco Influence on Taste and Smell: Systematic Review of the Literature.

Da Ré AF1, Gurgel LG1, Buffon G1, Moura WER1, Marques Vidor DCG2, Maahs MAP1.

Abstract

Introduction In Brazil, estimates show that 14.7% of the adult population smokes, and changes in smell and taste arising from tobacco consumption are largely present in this population, which is an aggravating factor to these dysfunctions. **Objectives** The objective of this study is to systematically review the findings in the literature about the influence of smoking on smell and taste. **Data Synthesis** Our research covered articles published from January 1980 to August 2014 in the following databases: MEDLINE (accessed through PubMed), LILACS, Cochrane Library, and SciELO. We conducted separate lines of research: one concerning smell and the other, taste. We analyzed all the articles that presented randomized controlled studies involving the relation between smoking and smell and taste. Articles that presented unclear methodologies and those whose main results did not target the smell or taste of the subjects were excluded. Titles and abstracts of the articles identified by the research strategy were evaluated by researchers. We included four studies, two of which were exclusively about smell: the first noted the relation between the perception of puff strength and nicotine content; the second did not find any differences in the thresholds and discriminative capacity between smokers and nonsmokers. One article considered only taste and supports the relation between smoking and flavor, another

considered both sensory modalities and observes positive results toward the relation immediately after smoking cessation. **Conclusion** Three of the four studies presented positive results for the researched variables.

Int Arch Otorhinolaryngol. 2018 Jan;22(1):81-87.