Pan Arab Rhinology Society
PARS Reader's Digest

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

1. Essential Anatomy and Evaluation for Functional Rhinoplasty.

Sowder JC1, Thomas AJ1, Ward PD2.

Abstract

The nose, a prominent facial feature in defining facial beauty, is responsible for the fundamental physiologic functions of heating, humidifying, and filtering inspired air. When the normal balance of laminar and turbulent airflow become disturbed due to anatomic abnormalities, nasal obstruction may result. To successfully restore these basic physiologic functions, the surgeon must have a detailed understanding of the nasal anatomy and be able to successfully identify the specific cause of the nasal obstruction. This article discusses the fundamental surgical anatomy and the various diagnostic techniques and instruments at the surgeon's disposal.

Facial Plast Surg Clin North Am. 2017 May;25(2):141-160.

2. Novel Application of Steroid Eluting Stents in Choanal Atresia Repair: A Case Series.

Bangiyev JN1,2, Govil N3, Sheyn A4, Haupert M2,5,6, Thottam PJ7,5,6.

Abstract

PURPOSE:

To describe the application of mometasone furoate eluting sinus stent technology in the treatment of choanal atresia (CA) in the hopes of preventing postsurgical stenosis.

METHODS:

We analyzed 3 consecutive patients aged 4 days to 16 years undergoing repair of CA at a tertiary pediatric hospital. Mometasone furoate eluting sinus stents were placed intraoperatively. Postoperative need for revision surgery as well as routine surveillance endoscopy were used to determine success of surgery**.**

RESULTS:

Three patients of varying age and etiology underwent successful repair of choanal atresia/stenosis. The steroid eluting sinus stent was deployed successfully in all 3 cases. There was no identifiable restenosis in any of the 3 patients with 12-month follow-up. There were no complications noted throughout the follow-up period.

CONCLUSIONS:
Choanal atresia is a rare disorder that can prove difficult in postsurgical management. In our case series, mometasone furoate eluting stents were effective and safe for the management of this disease process. Further prospective studies are needed to determine the exact safety profile, long-term consequences, and efficacy of steroid eluting sinus stents in the pediatric population.

Ann Otol Rhinol Laryngol. 2017 Jan;126(1):79-82.

3. Emergency Department care of childhood epistaxis.

Béquignon E1, Teissier N2, Gauthier A3, Brugel L3, De Kermadec H3, Coste A1, Prulière-Escabasse V4.

Abstract
OBJECTIVE:
The aim of this review is to determine an efficient and safe primary strategy care for paediatric epistaxis.
DATA SOURCES:
We searched PubMed and Cochrane databases for studies referenced with key words 'epistaxis AND childhood'. This search yielded 32 research articles about primary care in childhood epistaxis (from 1989 to 2015). Bibliographic references found in these articles were also examined to identify pertinent literature. We compared our results to the specific management of adult epistaxis classically described in the literature.
RESULTS:
Epistaxis is one of the most common reasons for referral of children to a hospital ENT outpatient department. The bleeding usually originates from the anterior septum, as opposed to adults. Crusting, digital trauma, foreign bodies and nasal colonisation with Staphylococcus aureus have been suggested as specific nosebleed factors in children. Rare aetiologies as juvenile nasopharyngeal angiofibroma appear later during adolescence. There are different modes of management of mild epistaxis, which begin with clearing out blood clots and bidigital compression. An intranasal topical local anaesthetic and decongestant can be used over 6 years of age. In case of active bleeding, chemical cauterisation is preferred to anterior packing and electric cauterisation but is only feasible if the bleeding site is clearly visible. In case of non-active bleeding in children, and in those with recurrent idiopathic epistaxis, antiseptic cream is easy to apply and can avoid 'acrobatic' cauterisation liable to cause further nasal cavity trauma.
CONCLUSIONS:
Aetiologies and treatment vary with patient age and the existence or not of active bleeding at the time of the examination. Local treatments are usually easy to perform, but physicians have to ponder their indications depending on the possible complications in order to inform parents and to know paediatric epistaxis specificities.
Emerg Med J. 2016 Aug 19. pii: emermed-2015-205528

4. A new approach to nasomaxillary complex type of nasal bone fracture: Clip operation.

Jung GS1, Kwon JH1, Lee JW1, Yang JD1, Chung HY1, Cho BC1, Choi KY2.

Abstract

PURPOSE:

Nasal bone fractures comprise almost 40% of all facial injuries. Most are initially reduced using closed reduction. This study introduces a newly developed method, the clip operation via endonasal approach.

MATERIALS AND METHODS:

The operation was performed in these patients by a single surgeon extensively experienced in facial bone fractures. An absorbable mesh plate made into a clip was used for fixation after open reduction via the endonasal approach. No screws were used for fixation. Nasal packing was removed the first day after surgery; aluminum splinting was removed the third week after surgery. Three-dimensional facial computed tomography and cephalolateral radiography were performed preoperatively and postoperatively. Plastic surgeon satisfaction and postoperative complications were assessed.

RESULTS:

Fracture relapse was not observed. Reduction status was well maintained. Postoperative complications occurred, with a low final incidence of 1.8% in the third postoperative month. Plastic surgeon satisfaction was very high at 4.58. This operation takes 5-10 min, and is simple to perform. It entails a short hospitalization, and the duration during which nasal packing and aluminum splint are maintained is comparable. Undesirable functional, aesthetic complications and secondary surgery resulting from inaccurate relapse were reduced.

CONCLUSION:

The clip operation is a useful technique for correcting nasal bone fractures, especially nasomaxillary complex type

J Craniomaxillofac Surg. 2017 Apr 6. pii: S1010-5182(17)30115-4.

5. Adjuvant treatment with a symbiotic in patients with inflammatory non-allergic rhinitis.

Gelardi M1, De Luca C1, Taliente S1, Fiorella ML1, Quaranta N1, Russo C2, Ciofalo A3, Macchi A4, Mancini M5, Rosso P6, Seccia V7, Guagnini F8, Ciprandi G9.

Abstract

Inflammatory non-allergic rhinitis (INAR) is characterized by the presence of an inflammatory infiltrate and a non-IgE-mediated pathogenesis. This retrospective, controlled, multicentre study investigated whether a symbiotic, containing Lactobacillus acidophilus NCFM, Bifidobacterium lactis, and fructo-oligosaccharides (Pollagen®, Allergy Therapeutics, Italy), prescribed as adjunctive therapy to a standard pharmacological treatment, was able to reduce symptom severity, endoscopic features, and nasal cytology in 93 patients (49 males and 44 females, mean age 36.3±7.1 years) with INAR. The patients were treated with nasal corticosteroid, oral antihistamine, and isotonic saline. At randomization, 52 patients were treated also with symbiotic as adjunctive therapy, whereas the remaining 41 patients served as controls. Treatment lasted for 4 weeks. Patients were visited at baseline, after treatment, and after 4-week follow-up. Adjunctive symbiotic treatment significantly reduced the percentages of patients with symptoms and endoscopic signs, and diminished inflammatory cells. In conclusion, the present study demonstrates that a symbiotic was able, as adjuvant treatment, to significantly improve symptoms, endoscopic feature, and cytology in patients with INAR, and its effect may be long lasting.
J Biol Regul Homeost Agents. 2017 Jan-Mar;31(1):201-206.

6. The Use of Frozen Section in the Early Diagnosis of Acute Invasive Fungal Sinusitis.

Melancon CC1, Clinger JD1.

Abstract

Objectives Acute invasive fungal sinusitis (AIFS) remains a significant cause of morbidity and mortality in the immunocompromised patient population. Early diagnosis is key to improving patient outcomes. Frozen section biopsies have been shown to decrease time to diagnosis when compared with permanent pathology. However, its accuracy has not been adequately described in the literature, specifically in regard to AIFS. The aim of this study is to evaluate the statistical diagnostic accuracy of frozen sections and to review the etiology, clinical presentation, and current diagnostic protocols in management of AIFS. Study Design Case series with chart review. Setting Tertiary referral center. Subjects and Methods Retrospective review included 67 pathologic records in Co-Path, with search criteria including invasive fungal, clinical history, frozen section, and final diagnosis between the dates of 2006 and 2015. Results Sixty-seven cases were reviewed per the search criteria in Co-Path. Of these, 31 met further criteria of having had frozen section analysis. Variables such as sensitivity, specificity, positive predictive value, and negative predictive value were assessed. All 21 positive frozen sections correlated with positive permanent pathology, giving a positive predictive value of 100%. Frozen section biopsies were 87.5% sensitive and 100% specific. Conclusion Early diagnosis of AIFS has been shown to decrease morbidity and mortality. Frozen section biopsies remain key in obtaining an early diagnosis among patients with a high

clinical suspicion for invasive fungal sinusitis. Frozen section biopsies positive for invasive fungal pathology were universally consistent with definitive diagnosis.

Otolaryngol Head Neck Surg. 2017 Mar 1:194599817697279.

7. Sinonasal Inverted Papilloma: Risk Factors for Local Recurrence After Surgical Resection.

Lisan Q1,2, Laccourreye O1,2, Bonfils P1,2.

Abstract

OBJECTIVES:

Sinonasal inverted papillomas (SIP) present a potential for recurrence years after the surgery, but most studies report short-term follow-up, and risk factors for recurrence are still debated. Furthermore, several classifications are described, and no consensus exists regarding which one should be used. The aims of this study were to report our long-term results, investigate for potential risk factors for recurrence, and compare the existing 8 staging systems.

METHODS:

Over a 28-year period, 110 patients with a diagnosis of SIP were enrolled. The median follow-up time was 55.6 months.

RESULTS:

In multivariate Cox regression modeling, history of previous surgery was the only variable associated with recurrence (hazard ratio = 4.91, 95% CI, 1.80-13.39). Recurrences occurred up to 60 months after the surgery. Among the 8 staging systems, none proved to be associated with recurrence.

CONCLUSION:

The only factor associated with recurrence of SIP was prior surgery, probably corresponding to an incomplete initial resection. Due to late recurrences, an extended follow-up of at least 5 years is mandatory. In the absence of a classification predicting prognosis, Krouse's staging system should be used to homogenize studies' report since it is the most widely used.

Ann Otol Rhinol Laryngol. 2017 Jun;126(6):498-504

8. New tumor entities in the 4th edition of the World Health Organization classification of head and neck tumors: Nasal cavity, paranasal sinuses and skull base.

Thompson LDR1, Franchi A2.

Abstract

The World Health Organization recently published the 4th edition of the Classification of Head and Neck Tumors, including several new entities, emerging entities, and significant updates to the classification and characterization of tumor and tumor-like lesions, specifically as it relates to nasal cavity, paranasal sinuses, and skull base in this overview. Of note, three new entities (NUT carcinoma, seromucinous hamartoma, biphenotypic sinonasal sarcoma,) were added to this section, while emerging entities (SMARCB1-deficient carcinoma and HPV-related carcinoma with adenoid cystic-like features) and several tumor-like entities (respiratory epithelial adenomatoid hamartoma, chondromesenchymal hamartoma) were included as provisional diagnoses or discussed in the setting of the differential diagnosis. The sinonasal tract houses a significant diversity of entities, but interestingly, the total number of entities has been significantly reduced by excluding tumor types if they did not occur exclusively or predominantly at this site or if they are discussed in detail elsewhere in the book. Refinements to nomenclature and criteria were provided to sinonasal papilloma, borderline soft tissue tumors, and neuroendocrine neoplasms. Overall, the new WHO classification reflects the state of current understanding for many relatively rare neoplasms, with this article highlighting the most significant changes

Virchows Arch. 2017 Apr 25

9. Nasal juvenile angiofibroma: Current perspectives with emphasis on management.

López F1,2, Triantafyllou A3,4, Snyderman CH5, Hunt JL6, Suárez C2, Lund VJ7, Strojan P8, Saba NF9, Nixon IJ10, Devaney KO11, Alobid I12, Bernal-Sprekelsen M12, Hanna EY13, Rinaldo A14, Ferlito A15.

Abstract

Juvenile angiofibroma is an uncommon, benign, locally aggressive vascular tumor. It is found almost exclusively in young men. Common presenting symptoms include nasal obstruction and epistaxis. More advanced tumors may present with facial swelling and visual or neurological disturbances. The evaluation of patients with juvenile angiofibroma relies on diagnostic imaging. Preoperative biopsy is not recommended. The mainstay of treatment is resection combined with preoperative embolization. Endoscopic surgery is the approach of choice in early stages,

whereas, in advanced stages, open or endoscopic approaches are feasible in expert hands. Postoperative radiotherapy (RT) or stereotactic radiosurgery seem valuable in long-term control of juvenile angiofibroma, particularly those that extend to anatomically critical areas unsuitable for complete resection. Chemotherapy and hormone therapy are ineffective. The purpose of the present review was to update current aspects of knowledge related to this rare and challenging disease.

Head Neck. 2017 May;39(5):1033-1045.

10. Anosmia: Differential diagnosis, evaluation, and management.

Scangas GA1, Bleier BS.

Abstract

The ability to scrutinize our surroundings remains heavily dependent on the sense of smell. From the ability to detect dangerous situations such as fires to the recollection of a fond memory triggered by an odor, the advantages of an intact olfactory system cannot be overstated. Outcomes studies have highlighted the profound negative impact of anosmia and parosmia on the overall quality of life. The National Institute on Deafness and Other Communication Disorders estimates that ~1.4% of the United States population experiences chronic olfactory dysfunction and smell loss. Efforts have focused on improving both the diagnosis of olfactory dysfunction through olfactory testing and improved reporting of treatment outcomes of olfactory training. The purpose of this article was to review the differential diagnosis, workup, and current treatment strategies of anosmia and smell disorders.

Am J Rhinol Allergy. 2017 Jan 1;31(1):3-7.