Pan Arab Rhinology Society
PARS Reader's Digest

Reader Digest

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

Introduction

This newsletter is intended to provide information that is useful to the student and specialist in the field of rhinology and allergic disorders.

The selected recent material represents important fundamental knowledge, current trends or recent developments in this field.

We hope that this newsletter will help the reader have a greater understanding of rhinology and allergic disorders

1. Operative technique and follow-up effect of endoscopic congenital choanal atresia and dilatation.

Deng HY, Gao XQ, Guo YF.

Abstract

Objective: To discuss the operative technique and follow-up effect of endoscopic dilatation and plasty for congenital choanal atresia in infants. **Method:**Clinical data of 7 children with congenital choanal atresia operative treatmented during September 2016 to January 2018 were analyzed retrospectively. the follow-up were followed closely and analyz the operative effect. **Result:** Seven cases were diagnosed by electronic nasopharyngoscope, nasal CT confirm the nature of atresia plate, and all 7 case successfully complete the operation. Follow-up survey ranged from 8 months to 23 months, postoperative nasal ventilation is good. The first case of bilateral choanal atresia was removed the nasal stenting after operative 3 months, and founded stenosis 1 month later. Reoperation to enlarge the choanal and retained the nasal stenting for 6 months, no restenosis or atresia after 15 months of follow-up. One patient gave up further treatment because of his own reasons and was lost to follow-up. The other 5 cases had no obvious constriction, good ventilation and no operative complications.**Conclusion:**Electronic nasopharyngoscope is noninvasive, convenient and accurate in the diagnosis of choanal atresia. Nasal CT confirm the nature of the atresia plate. Endoscopic dilatation and plasty of choanal atresia should be retained the nasal stenting for more than 6 months, avoid re-constriction.

Lin Chung Er Bi Yan Hou Tou Jing Wai Ke Za Zhi. 2019 Apr;33(4):367-370.

2. Evaluation and management of paediatric nasal fractures.

Jul M1, Sjöstedt S, Grønhøj C, Hjuler T, Buchwald CV.

Abstract

This is a review discussing evaluation and management of paediatric nasal fractures, which have been reported as one of the three most common facial bone fractures. Nasal fractures in children are usually treated with closed reduction after 3-5 days, while other injuries like septal haematoma must be treated at the initial presentation. It is important to pay careful attention to the nasal anatomy during the surgical management of paediatric nasal injuries, as disturbing the nasal growth zones can have an impact on future nasal development.

Ugeskr Laeger. 2019 Apr 22;181(17).

3. Computed tomography findings in patients with primarily unknown causes of severe or recurrent epistaxis.

van Horn N1, Faizy TD1,2, Schoenfeld MH2, Kohlmann P3, Broocks G2, Haag P1, Fiehler J2, Habermann CR1, Karul M1.

Abstract

OBJECTIVE:

In addition to rhinoscopy, computed tomography of paranasal sinuses (CT) may be performed on patients with primary unknown cause of severe epistaxis (SE) or recurrent epistaxis (RE) to further assess the potential cause of bleeding. The aim of this study was to evaluate CT findings during the work-up of intractable epistaxis patients.

METHODS:

6937 patients were treated in our emergency department with acute epistaxis between 2009-2018. 304/6937 patients underwent CT and rhinoscopy due to intractable SE or RE. 33 patients presented with head trauma prior to epistaxis and were excluded from the final analysis. In 271 cases the primary causes of SE (n = 252) or RE (n = 19) remained unknown. Two observers retrospectively evaluated CT scans for potential sources of epistaxis. Disagreement was settled by consensus. CT and rhinoscopy findings were compared.

RESULTS:

In 247/271 (91.1%) SE patients no related pathology was found on CT. A possible cause for epistaxis was found in all RE patients, but only in 5/252 (1.9%) patients with SE. Most tumours (10/11) and inflammatory conditions (9/10) were found in patients with RE. In three SE cases, a tumour was suspected on CT, from which two suspicions were refuted during rhinoscopy. CT

revealed 10 cases of inflammatory conditions of the sinus and anatomical variant as potential cause of bleeding.

CONCLUSION:

For patients with unknown causes of epistaxis, supplementary CT imaging may be a useful diagnostic add-on to rhinoscopy in the event of RE, tumour suspicion or inflammation of the paranasal sinuses. However, in most cases of first-time SE, CT does not necessarily add to the diagnosis. In these cases, the marginal benefit of CT needs to be weighed carefully against its risks

PLoS One. 2019 Aug 1;14(8):e0220380.

4. Pharmacological Management of Allergic Rhinitis in the Elderly.

Bozek A1.

Abstract

Recent studies suggest that allergic rhinitis is highly prevalent in the elderly population, but is underdiagnosed and undertreated. This review article briefly introduces allergic rhinitis in the elderly (epidemiology and pathophysiology) and identifies the main goals of treatment in these patients with respect to age-related physiological factors, comorbid conditions and polypharmacy. The primary focus of the article is a narrative review of the literature concerning the different types of treatment options in elderly patients aged 60+ years (pharmacological therapy and allergen-specific immunotherapy). The main management trend for allergic rhinitis in elderly patients is the same as the trend in young patients. Second-generation antihistamines and nasal glucocorticosteroids are also the first-line therapies in seniors. In a few trials, allergen-specific immunotherapy for grass pollen or house dust mites has been shown to be effective and safe in patients aged 60 years or older with allergic rhinitis. In conclusion, undertreatment of allergic rhinitis in the elderly is a reality. Pharmacological treatment is quite similar in both older and younger patients with allergic rhinitis

Drugs Aging. 2017 Jan;34(1):21-28.

5. Frontal sinus "mega-trephination" in a tertiary rhinology practice.

Geltzeiler M1, Mowery A1, Detwiller KY1, Mace JC1, Smith TL1.

Abstract

BACKGROUND:

Frontal sinus trephination is traditionally performed through a small cutaneous incision and osteotomy, allowing irrigation of the frontal sinus. Utilizing the trephination osteotomy for endoscopic visualization and surgical manipulation requires a larger opening. This "mega-trephination" is thought to carry an increased risk of cosmetic deformity given the increased bony removal at the anterior table. The purpose of our study was to clarify the risks of frontal sinus mega-trephination and examine how this technique is incorporated into a modern, tertiary care rhinology practice.

METHODS:

Patients were identified through billing records and confirmed by retrospective chart review. All patients underwent frontal sinus mega-trephination, which is defined as an osteotomy large enough for insertion of a 4-mm endoscope and an operative instrument simultaneously. All patients had at least 2 years of follow-up. The primary outcome was complication rate, including cosmetic deformity.

RESULTS:

Sixty-four patients underwent frontal sinus mega-trephination from 2006 to 2016. The most common surgical indications were chronic sinusitis (34%), mucocele (19%), osteoma (17%), acute sinusitis (11%), and inverting papilloma (9%). Ten patients (16%) underwent mega-trephination alone, whereas the others had mega-trephination with endoscopic sinus surgery. Twenty-one patients (33%) had minor complications. The most common complications were self-limited paresthesia (11%), infection (8%), and epistaxis (3%). No patient complained of permanent cosmetic deformity or required revision surgery for cosmesis.

CONCLUSION:

Frontal sinus mega-trephination is a useful tool to augment the rhinologist's armamentarium in complex frontal sinus anatomy and pathology. This procedure is well tolerated, safe, and not associated with long-term cosmetic deformity.

Int Forum Allergy Rhinol. 2019 Aug 12.

6. The Influence of Functional Endoscopic Sinus Surgery on Sleep Related Outcomes in Patients with Chronic Rhinosinusitis.

Jiang RS1,2,3,4, Liang KL2,3,5.

Abstract

Purpose:

Chronic rhinosinusitis (CRS) patients often complain of nasal obstruction, which may cause sleep impairment for them. The goal of this study was to investigate the influence of functional endoscopic sinus surgery (FESS) on sleep related outcomes in CRS patients.

Materials and Methods:

CRS patients who received FESS were included in this study. Prior to FESS and 3 months after surgery the patients were asked about the severity of nasal obstruction and completed the 20-item Sinonasal Outcome Test (SNOT-20), along with the Epworth Sleepiness Scale (ESS) questionnaire. Endoscopic examination, acoustic rhinometry, and polysomnography were performed in all patients. They were divided into four groups according to their preoperative apnea hypopnea index (AHI) scores: nonobstructive sleep apnea syndrome (non-OSAS), mild OSAS, moderate OSAS, and severe OSAS.

Results:

A total of 96 subjects completed the study. The scores of the sleep domain of the SNOT-20 and ESS decreased in all of the AHI groups, with the exception of the severe OSAS group, after FESS. A reduction in the AHI of less than 5 was achieved in 9 patients (13.2%) after FESS.

Conclusions:

Our results showed that FESS improved sleep quality in CRS patients, except those with severe OSAS, and a preoperative lower AHI was the only significant predictor of post-FESS OSAS outcome

Int J Otolaryngol. 2019 Jun 2;2019:7951045.

7. Unilateral versus bilateral sinonasal disease: Considerations in differential diagnosis and workup.

Eckhoff A1, Cox D2, Luk L2, Maidman S1, Wise SK2, DelGaudio JM2.

Abstract

OBJECTIVE:

Imaging findings play an important role in the workup and diagnosis of sinonasal disease. Unilateral versus bilateral involvement is a key finding that can differentiate between various diagnoses. Our objective is to characterize presenting symptoms, imaging findings, and most common diagnoses associated with unilateral versus bilateral sinonasal disease.

METHODS:

Patients who underwent surgical intervention for sinonasal disease at Emory University between May 2015 and December 2016 were included in the study. Information including demographic variables, comorbidities, presenting symptoms, imaging findings, and pathologic diagnosis was collected for each patient. Unilateral versus bilateral disease was determined by preoperative computer tomography and magnetic resonance imaging, and correlated to surgical and pathologic findings. Data was analyzed using quantitative methodologies and descriptive statistics.

RESULTS:

The study cohort consisted of 250 patients presenting for primary sinonasal surgery, including 110 patients with unilateral disease and 140 patients with bilateral disease. The most common diagnosis for patients with bilateral disease was chronic rhinosinusitis with nasal polyps (46%) followed by chronic rhinosinusitis without polyps (26%). For patients with unilateral disease the most common diagnoses were chronic rhinosinusitis without nasal polyps (21%), malignancy (19%), benign neoplasm (15%), and allergic fungal sinusitis (10%). There was a statistically significant association between unilateral sinonasal disease and the final diagnosis of benign neoplasm (OR = 7.8, $P < .01$) and malignancy (OR = 8, $P < .01$).

CONCLUSION:

Patients with unilateral sinus disease on initial imaging are less likely chronic rhinosinusitis compared to patients with bilateral disease. This should be taken into consideration in the workup and management of patients with unilateral sinus disease.

Laryngoscope. 2019 Jun 20.

8. Frontal inverted papillomas: A 25-year study.

Sham CL1, van Hasselt CA1, Chow SMW1, Lee DLY1, Cho RHW1, Woo JKS1, Tong MCF1.

Abstract

OBJECTIVES/HYPOTHESIS:

This study analyzes the treatment outcomes of frontal inverted papillomas (FIPs) in an attempt to provide guidelines for surgery selection.

STUDY DESIGN:

Retrospective case series.

METHODS:

The treatment results of 29 FIPs classified into five categories were retrospectively analyzed. The five categories are F1, tumor prolapsed into frontal sinus, tumor origin outside frontal sinus; F2, tumor origin inside frontal sinus, medial to the plane of lamina papyracea; F3, tumor origin inside frontal sinus, lateral to the plane of lamina papyracea; F4, bilateral; and F5, extrasinonasal.

RESULTS:

Of the 11 F1 cases, 73% had Draf I and 27% had Draf IIA procedures. There was one (9%) frontal recurrence and one (9%) frontal stenosis. Of the 10 F2 cases, 10% had Draf I, 40% had Draf IIA, 40% had Draf IIB, and 10% had Draf III surgery with a trephination. One patient (10%) had a frontal recurrence. Of the five F3 cases, 40% had Draf IIA surgery, 20% had external frontoethmoidectomy, and 40% had external frontal sinusotomy. The recurrence rate was 60%, and frontal stenosis rate was 60%. The two F4 cases had external frontal sinusotomies and Draf III surgery with no frontal recurrence or stenosis. The patient with the F5 had a frontal recurrence after Draf IIA surgery and external frontoethmoidectomy.

CONCLUSIONS:

Draf I or IIA surgery is adequate for most F1 tumors, and Draf II surgery is adequate for most F2 tumors. F3 and F4 tumors can be managed initially by Draf III surgery with external frontal sinusotomy added when required. F5 tumors probably require combined surgical approaches.

Laryngoscope. 2019 Aug 16.

9. Present status of the treatment for olfactory dysfunction.

Liu JF1, Han J1, Han HL1, Zhao JH1.

Abstract

Olfactory dysfunction is defined as decrease or loss of smell perception.This review systematically summarizes classification, etiology and diagnosis progress of olfactory dysfunction, and focuses on advancement in management of olfactory dysfunction, including pharmaceutical remedy, surgical treatment as well as olfactory training.Glucocorticoids play an important role in the treatment of olfactory dysfunction. Sodium citrate, vitamin A, and nonspecific phosphodiesterase inhibitors (theophylline, pentoxifylline) are promising drugs.Endoscopic paranasal sinuses surgery can improve the olfactory dysfunction caused by chronic sinusitis to some extent.Olfactory training has been proven to be effective for a variety of causes of olfactory dysfunction

Zhonghua Er Bi Yan Hou Tou Jing Wai Ke Za Zhi. 2018 Jul 7;53(7):544-549.

10. European position paper on diagnostic tools in rhinology.

Rimmer J1,2, Hellings P3,4,5, Lund VJ6, Alobid I7, Beale T8, Dassi C9, Douglas R10, Hopkins C11, Klimek L12, Landis B13, Mosges R14,15, Ottaviano G16, Psaltis A17, Surda P11, Tomazic PV18, Vent J19,20, Fokkens W21.

Abstract

The accurate diagnosis of rhinologic disease depends on the clinical history, examination findings and, in many cases, further investigations. There are a wide variety of diagnostic tests available, the choice of which depends upon the condition being assessed. This position paper is intended to provide an up-to-date comprehensive description of the diagnostic tools available to rhinologists, allergists, general otolaryngologists and other physicians with an interest in sinonasal disease. The literature has been reviewed and evidence-based recommendations are included. The relevant history and examination techniques are described, including endoscopic assessment of the nose. General and disease-specific quality of life instruments are an important tool in assessing the impact of rhinologic disease and the response to treatment. Relevant blood tests are discussed, as well as the various methods of allergy testing. Techniques for collecting microbiological and tissue samples are described, as well as the use of more specialised tests such as nasal nitric oxide and those evaluating ciliary structure and function. Imaging techniques and their indications are included. Chemosensory (smell and taste) testing is explained, and the available techniques for objective measurement of nasal airflow and patency are reviewed. Prompt and accurate diagnosis allows appropriate management to be initiated; an understanding of the currently available diagnostic tools is a vital part of the assessment of rhinologic disease

Rhinology. 2019 Jul 25;57(Suppl S28):1-41