Pan Arab Rhinology Society
PARS Reader's Digest

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

1. Diagnostic Imaging Features of Congenital Nose and Nasal Cavity Lesions.

Ginat DT, Robson CD.

Abstract

A wide variety of congenital nasal lesions can present to clinical attention due to airway obstruction, the presence of a mass, and/or cosmetic deformity, including pyriform aperture stenosis, choanal atresia, nasopharyngeal atresia, arrhinia, congenital germline fusion cysts, cephaloceles, neuroglial heterotopia, nasolacrimal duct mucoceles, hamartomas, supernumerary nostril, and bifid nose. Computed tomography and magnetic resonance imaging, which are the main imaging modalities used to characterize these lesions, often serve complementary roles. Familiarity with embryology and anatomy is also essential for recognizing the diagnostic imaging findings related to congenital nasal lesions.

Clin Neuroradiol. 2014 Aug 6

2. Transnasal endoscopic choanal plasty for repairing congenital choanal atresia.

Sun P, Ge W, Liu W1, Liu W, Zhang Y.

Abstract

OBJECTIVE:

To observe the effect of transnasal endoscopic choanal plasty for repairing congenital choanal atresia.

METHOD:

A retrospective analysis of 15 patients with choanal atresia in Beijing Children's Hospital from January 2006 to September 2012 was made. All the 15 patients accepted electronic nasopharyngoscope examination and CT scanning of the paranasal sinus. The age was between 4 years old and 6 years old. Seven of them were male and 8 were female. Six cases were unilateral atresia, 9 were bilateral atresia. Ten cases (16 sides) were membranous atresia, 2 cases (4 sides) were mixed type atresia and 3 cases (4 sides) were bony atresia. All the patients accepted transnasal endoscopic choanal plasty. A tube was placed in order to support the enlarged nostrils. The nasal tube should be retained for 3 months and kept patency by routine care. Three months after operation, the tube could be removed. The patients were told to do physiological saline nasal irrigation and receive regular review by transnasal endoscopy.

RESULT:

The patients were followed up for 1 year postoperatively by electronic nasopharyngoscope examination. There was no failure case in all the 15 patients. The total effective rate was 100%.

CONCLUSION:

Transnasal endoscopic choanal plasty had better efficacy and safety in the treatment of congenital choanal atresia

Zhonghua Er Bi Yan Hou Tou Jing Wai Ke Za Zhi. 2014 Jul; 49(7):564-7

3. Management of fractures of the nasofrontal complex.

Morrison AD, Gregoire CE.

Abstract

Repair of fractures involving the nasofrontal region remains a mainstay of contemporary oral and maxillofacial surgery. This article discusses the epidemiology of these injuries, anatomy of the area, and management of these fractures with insight into potential complications. These include fractures of the frontal sinus, naso-orbital-ethmoidal region, root of the nose, and associated adjacent structures.

Oral Maxillofac Surg Clin North Am. 2013 Nov; 25(4):637-48

4. Optimal management of hereditary hemorrhagic telangiectasia.

Garg N, Khunger M, Gupta A, Kumar N.

Abstract

Hereditary hemorrhagic telangiectasia (HHT), also known by the eponym Osler-Weber-Rendu syndrome, is a group of related disorders inherited in an autosomal dominant fashion and characterized by the development of arteriovenous malformations (AVM) in the skin, mucous membranes, and/or internal organs such as brain, lungs, and liver. Its prevalence is currently estimated at one in 5,000 to 8,000. Most cases are due to mutations in the endoglin (HHT1) or ACVRLK1 (HHT2) genes. Telangiectasias in nasal and gastrointestinal mucosa generally present with recurrent/chronic bleeding and iron deficiency anemia. Larger AVMs occur in lungs (~40%-60% of affected individuals), liver (~40%-70%), brain (~10%), and spine (~1%). Due to the devastating and potentially fatal complications of some of these lesions (for example, strokes and brain abscesses with pulmonary AVMs), presymptomatic screening and treatment are of utmost importance. However, due to the rarity of this condition, many providers lack an appreciation for the whole gamut of its manifestations and complications, age-dependent penetrance, and marked intrafamilial variation. As a result, HHT remains frequently underdiagnosed and many families do not receive the appropriate screening and treatments. This article provides an overview of the clinical features of HHT, discusses the clinical and genetic diagnostic

strategies, and presents an up-to-date review of literature and detailed considerations regarding screening for visceral AVMs, preventive modalities, and treatment options

J Blood Med. 2014 Oct 15; 5:191-206

5. Potential risk factors of excessive epistaxis after endoscopic endonasal surgery.

Zeng R, Li W, Ai J, Sun B, Xu Z, Gao R, Tan G.

Abstract

OBJECTIVE:

To investigate the potential risk factors and management of excessive epistaxis after endoscopic endonasal surgery (EES).

METHOD:

Six hundred and forty-one patients who underwent EES in our hospital from December 2011 to December 2012 were reviewed retrospectively. Factors which potentially affect the incidence of excessive epistaxis after EES were analyzed with univariate and multivariate logistic regression model.

RESULT:

The incidence rate of excessive epistaxis after EES was 8.4% in our study. Multivariate logistic regression analysis revealed that history of previous EES, along with other four factors, correlated significantly with the occurrence of excessive epistaxis after EES.

CONCLUSION:

Previous EES, along with other three factors, may increase the chance of excessive epistaxis after EES, while pre-operative corticosteroid therapy may reduce the risk to some extent.

Lin Chung Er Bi Yan Hou Tou Jing Wai Ke Za Zhi. 2014 Jul; 28(14):1047-50

6. Preventing progression of allergic rhinitis to asthma.

Morjaria JB, Caruso M, Rosalia E, Russo C, Polosa R.

Abstract

The prevalence of allergic rhinitis (AR) is on the increase and this condition is frequently associated with asthma, thus leading to the concept that these two conditions are different aspects of the same disease. There is now accumulating evidence that AR often precedes the onset of asthmatic symptoms. This notion has important implications, not only for the diagnosis and management of these common allergic conditions but also for the potential progression of disease. Very little is known about the risk factors responsible for the progression of AR to asthma; current treatment options can control symptoms but do not prevent or cure the disease. However, there are recent data supporting the notion that it is possible to prevent new asthma cases

by modifying the immune response and clinical outcome with allergen immunotherapy. This review article evaluates the impact of AR on the development of asthma, examines putative predictors for the progression of AR to asthma, and reviews recent, promising literature suggesting that early treatment of allergic individuals with immunotherapy may aid in asthma prevention.

Curr Allergy Asthma Rep. 2014 Feb; 14(2):412

7. Isolated sphenoid sinus lesion: A diagnostic dilemma.

Alazzawi S, Shahrizal T, Prepageran N, Pailoor J.

Abstract

Isolated sphenoid sinus lesions are an uncommon entity and present with non-specific symptoms. In this case report, the patient presented with a history of headaches for a duration of one month without sinonasal symptoms. A computed tomography scan showed a soft tissue mass occupying the sphenoid sinus. An endoscopic biopsy revealed fungal infection. Endoscopic wide sphenoidotomy with excision of the sphenoid sinus lesion was then performed however, the microbiological examination post-surgery did not show any fungal elements. Instead, Citrobacter species was implicated to be the cause of infection

Qatar Med J. 2014 Jun 16; 2014(1):57-60

8. An update on management of pediatric epistaxis.

Patel N, Maddalozzo J, Billings KR.

Abstract

OBJECTIVE:

To evaluate the work-up and treatment of pediatric epistaxis in an outpatient clinical setting, with a focus on the diagnostic utility and associated costs of nasal endoscopy and adjunctive laboratory data.

STUDY DESIGN:

Retrospective, case series.

METHODS:

Children under 18 years of age seen in an outpatient clinical setting at a tertiary care hospital between 2004 and 2012 for the primary diagnosis of epistaxis were identified. Patient characteristics were analyzed from a statistical and cost perspective.

RESULTS:

A total of 175 patients with epistaxis were included. One hundred twenty-two (69.7%) were male, with a mean overall age of 9.1 years (range 5 months to 17.9 years). The duration of bleeding ranged from 0.25 to 84 months (mean 11.5 months). Nasal endoscopy was performed in 123 (70.2%) patients. Three (2.4%) had nasal polyps, and 1 (0.8%) a juvenile nasopharyngeal angiofibroma. The average age of patients with nasal masses was significantly older (16.2 years versus 10.4 years, p=0.008). Of 131 patients with available blood work, laboratory values demonstrated anemia in 27 (20.6%) patients, elevated partial thromboplastin time in 5 (3.8%), and an abnormal platelet function analysis in 1 (0.8%) patient. Those with anemia were statistically younger (p=0.001), than those with either normal labs or abnormal coagulation studies. Epistaxis resolved in 88/135 (65.2%) who had follow-up visits.

CONCLUSION:

The majority of pediatric epistaxis cases resolved with nasal mucosa hydration. Nasal endoscopy can be reserved for teenaged patients with epistaxis, and routine laboratory screening may be useful in select cases based on the clinical judgment.

Int J Pediatr Otorhinolaryngol. 2014 Aug; 78(8):1400-4

9. The Problem of High Recurrence Rate in Endoscopic Revision Surgery for Inverted Papilloma.

Tomazic PV, Hubmann F, Stammberger H.

Abstract

Background: Inverted papilloma (IP) is a benign lesion of the sinonasal tract. Clinical problems arise from expansive growth and bone destruction, a possible association with malignancy and a tendency to recur. Complete subperiostal/subperichondral removal via endoscopic sinus surgery (ESS) is the treatment of choice. The purpose of this study was to evaluate the theory of an elevated recurrence rate after secondary resection. **Patients and Methods:** The retrospective analysis comprised 66 patients, who were treated for IP at the University Clinic of Otorhinolaryngology Graz between 2000 and 2011. The mean follow-up was 33.85 months. 18 patients were lost to follow-up. **Results:** The study group consisted of 51 males and 15 females. 65 (98.5%) of which had been operated on purely endoscopic or via a combined approach. Recurrence was diagnosed in 14 cases (29.2%), on average 11.9 months after surgery, 71.5% of these in the first 12 months. The recurrence rate was significantly higher after revision surgery (50%) when patients had been previously operated elsewhere as compared to primary resection (12%). The analysis also showed a significant increase in recurrences for Krouse stages 3 and 4. **Conclusion:** The collected data confirms ESS as the best treatment option. Due to recurrences and malignant transformation, follow-up should be performed within 5 years postoperatively. We could statistically verify the prognostic value of Krouse's staging system. The elevated recurrence rate after secondary resection emphasises the significance of removing the tumor completely during the first surgery.

Laryngorhinootologie. 2014 Sep 25

10. Evaluation of post-traumatic anosmia with MRI and chemosensory ERPs.

Miao X1, Yang L, Gu H, Ren Y, Chen G, Liu J, Wei Y.

Abstract

Magnetic resonance imaging (MRI) and chemosensory event-related potentials (ERPs) are important methods to evaluate olfactory function, but there is lack of study to explore the application of MRI and chemosensory ERPs in the patients with traumatic anosmia. The data of 26 post-traumatic anosmic patients and 21 healthy controls were retrospectively surveyed; olfaction and olfactory pathway of all participants were measured clinically using the T&T olfactometer, the Sniffin' Sticks, chemosensory ERPs and MRI. All patients were anosmic based on complaints and clinical examinations. In five patients, the olfactory bulb volume was significantly lower than control group. In 18 patients, the olfactory sulcus (OS) depth was similar to control group, but all the participants had a deeper right OS (right = 7.79 ± 1.31, left = 7.06 ± 1.44, $p < 0.01$). Olfactory ERPs (oERPs) could be evoked in 17 patients, but these signals showed longer latencies and lower amplitude than controls in the N1 (latency $p < 0.05$, amplitude $p < 0.01$) and P2 (latency $p < 0.01$, amplitude $p < 0.05$) waves. Nine traumatic anosmic patients had no identifiable oERPs; most of them had olfactory center injury. Trigeminal ERPs were detected in all anosmic patients and controls; patients had longer latencies for N1 ($p < 0.05$) and P2 ($p < 0.05$) waves, while there was no similar change in amplitude. Older subjects had smaller OB volume and OS depth. Closed head injury could induce anosmia; the severity extent, injury site and subsequent consciousness are related to the olfaction. oERP is the gold standard for olfactory subjective examination; MRI could indicate the lesions on the olfactory pathway and reflect the possibility of detectable oERPs

Eur Arch Otorhinolaryngol. 2014 Sep 25