



Reader Digest
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1. Endonasal endoscopic surgery of choanal atresia - long term results.

[Holtmann L1, Stähr K1, Kirchner J2, Lang S3, Mattheis S4.](#)

Abstract

Introduction:

Choanal atresia is a rare abnormality. As neonates depend on transnasal respiration, bilateral choanal atresia causes an acute emergency. Transnasal endoscopic resection of congenital choanal atresia is a well-established therapy. However, the surgical technique has not yet been standardized.

METHODS:

A retrospective chart review was performed with a follow-up examination between 9 to 87 months after surgery. 11 patients (7 with unilateral atresia, 4 with bilateral atresia) were included. The choana was opened and enlarged endoscopically by resection of the posterior septal wall and bony reduction up to skull base and nasal floor. Intraoperative handling, intra- and postoperative complications, restenosis and adequate respiratory function were assessed.

RESULTS:

No intraoperative complications could be observed. Three premature babies underwent surgical intervention within their first postnatal week with an average weight of 2540 g. 2/11 patients suffered from a minor episode of epistaxis as a postoperative complication. Long-term success without restenosis was 73 % (for unilateral atresia) and 100 % for bilateral (atresia).

CONCLUSIONS:

Choosing an endonasal endoscopic approach to resect choanal atresia via resection of the posterior septal wall and circular bony reduction is a successful therapy with low morbidity.

Laryngorhinootologie. 2018 Feb 8.



2. Correction of Nasal Fractures.

[Lu GN1, Humphrey CD1, Kriet JD2.](#)

Abstract

Nasal fractures are the most frequently fractured facial bone from blunt facial trauma resulting in a significant number of patients seeking treatment. Proper evaluation and treatment in the acute setting can minimize secondary surgeries, lower overall health care costs, and increase patient satisfaction. Nasal fracture management, however, varies widely between surgeons. The open treatment of isolated nasal fractures is a particularly controversial subject. This review seeks to describe the existing literature in isolated nasal fracture management.

Facial Plast Surg Clin North Am. 2017 Nov;25(4):537-546.

3. Drug-induced Epistaxis: An Often-Neglected Adverse Effect.

[Meirinho S1, Relvas R1, Alves G2.](#)

Abstract

BACKGROUND:

Epistaxis is an active nose bleeding with a population occurrence of approximately 60%. Although epistaxis is a common clinical complaint, the majority of the cases are benign and caused by local induced factors (e.g., trauma and local inflammation). Nevertheless, it is also recognised that epistaxis can be induced after some drugs intake.

AIMS:

Due to the increasing use of drugs or drug combinations that potentially may induce epistaxis, this review aims to alert healthcare professionals for this often neglected adverse drug effect and its possible complications.

METHODS:

A comprehensive literature search was performed on PubMed and Google Scholar databases, considering the literature published from January 1985 to December 2015, using medical terms related to the scope of drug-induced epistaxis, nosebleeds and nasal blood supply.

RESULTS AND DISCUSSION:

As expected, anticoagulant and antiplatelet drugs are the main pharmacotherapeutic agents associated with epistaxis, particularly warfarin, dabigatran, rivaroxaban and aspirin. However, it was reported that some selective serotonin reuptake inhibitors, intranasal corticosteroids, certain antibiotics and other drugs or drug associations can also be responsible by nosebleeds. Although most of these epistaxis episodes are mild to moderate, being spontaneously reversed or requiring



only minor medical approaches to control it, there are also several case reports, as well as retrospective and prospective studies, documenting severe epistaxis episodes after specific medicines intake. In these cases some invasive medical interventions are demanded to manage the bleeding and avoid life-threatening consequences.

CONCLUSIONS:

This work provides an integrated and comprehensive review on drug-induced epistaxis bridging the gap in the current scientific literature addressing this topic. Therefore, the scientific information gathered and discussed will be valuable to raise awareness of doctors and pharmacists for this drug-related problem, as well as to promote their active pharmacovigilance and reinforce patient education.

Curr Drug Saf. 2018 Feb 12.

4. Allergic rhinitis and asthma: epidemiology and common pathophysiology.

[Khan DA1.](#)

Abstract

Allergic rhinitis and asthma are common diseases that frequently occur together. This concept has been referred to in the literature as united airway disease. Epidemiological studies have shown that the majority of patients with asthma have concomitant rhinitis and the presence of rhinitis is an increased risk factor for development of asthma. Patients with asthma and rhinitis share common physiology including heightened bronchial hyperresponsiveness and heightened reactivity to a variety of stimuli. Immunopathology of allergic rhinitis is also similar with the predominance of T-helper type 2 inflammation and tissue eosinophilia. Although several mechanisms have been proposed to explain the united airway theory, some of the best lines of evidence suggest that local airway inflammation can result in a systemic inflammatory response. Pharmacotherapeutic studies have shown that the treatment of rhinitis can improve asthma and vice versa. Nevertheless, systemic approaches such as immunotherapy lead to better outcomes for treating both disease states simultaneously. This article will focus on the data supporting the common epidemiology, shared pathophysiology, and therapeutic interventions aimed at allergic rhinitis and asthma as united airway diseases.

Allergy Asthma Proc. 2014 Sep-Oct;35(5):357-61.



5. Recurrences of surgery for antrochoanal polyps in children: A systematic review.

[Galluzzi F1, Pignataro L2, Maddalone M3, Garavello W4.](#)

Abstract

OBJECTIVES:

The main purpose was to evaluate the recurrence rate after surgery for antrochoanal polyps (ACPs) in children; secondly, we have analyzed the rate of recurrence for different types of surgery and the risk factors involved.

METHODS:

We performed a systematic review searching PubMed and MEDLINE databases including English-language published studies from June 1989 to October 2017 regarding surgical treatment of ACPs in children.

RESULTS:

We included thirteen studies, eight were retrospective and five prospective, with 285 participants, the mean rate of recurrence after ACPs surgery was 15.0% (95% CI:11.0-20.0). Functional endoscopic sinus surgery (FESS) was the main type of surgery used for primary cases (75.4%) followed by the combined approach i.e. FESS with a transcanine sinusoscopy or mini Caldwell-Luc (14%), the Caldwell-Luc (CWL) (8%) and simple polypectomy (SP) (2.8%). Our analysis has demonstrated a significant reduction of recurrences using the combined approach 0% (95% CI: 0.0-8.0) compared with FESS 17.7% (95% CI: 12.8-23.4) or SP 50% (95% CI:15.7-84.3) ($p < .05$) but no significant differences with CWL 9.1% (95% CI: 1.1-29.2) and others surgical approaches ($p > .05$). The analysis of the possible risk factors involved in recurrences are inconclusive.

CONCLUSION:

Recurrences of ACPs in children are still high. The endoscopic sinus surgery is considered the first choice for primary treatment, whilst the external approach may be a valid option in case of recurrence. It seems that the combined approach could reduce recurrence rates in selected that cannot be completely managed with endoscopy.

Int J Pediatr Otorhinolaryngol. 2018 Mar;106:26-30



6. Sublingual Immunotherapy for Allergic Fungal Sinusitis.

[Melzer JM1, Driskill BR2, Clenney TL2, Gessler EM2.](#)

Abstract

Allergic fungal sinusitis (AFS) is a condition that has an allergic basis caused by exposure to fungi in the sinonasal tract leading to chronic inflammation. Despite standard treatment modalities, which typically include surgery and medical management of allergies, patients still have a high rate of recurrence. Subcutaneous immunotherapy (SCIT) has been used as adjuvant treatment for AFS. Evidence exists to support the use of sublingual immunotherapy (SLIT) as a safe and efficacious method of treating allergies, but no studies have assessed the utility of SLIT in the management of allergic fungal sinusitis. A record review of cases of AFS that are currently or previously treated with sublingual immunotherapy from 2007 to 2011 was performed. Parameters of interest included serum IgE levels, changes in symptoms, Lund-McKay scores, decreased sensitization to fungal allergens associated with AFS, and serum IgE levels. Ten patients with diagnosed AFS were treated with SLIT. No adverse effects related to the use of SLIT therapy were identified. Decreases in subjective complaints, exam findings, Lund-McKay scores, and serum IgE levels were observed. Thus, sublingual immunotherapy appears to be a safe adjunct to the management of AFS that may improve patient outcomes.

Ann Otol Rhinol Laryngol. 2015 Oct;124(10):782-7.

7. Patterns of vascularization and surgical morbidity in juvenile nasopharyngeal angiofibroma: A case series, systematic review, and meta-analysis.

[Overdevest JB1, Amans MR2, Zaki P3, Pletcher SD1, El-Sayed IH1,4.](#)

Abstract

BACKGROUND:

Vascular patterns of juvenile nasopharyngeal angiofibroma (JNA) are poorly defined. We performed both institutional and systematic literature reviews to characterize the relationship between arterial supply patterns of JNA with intraoperative blood loss and tumor recurrence.

METHODS:

A retrospective review of 26 patients with JNA treated at our institution from 1995 to 2015 with available angiograms, and systematic reviews and meta-analyses of 828 JNA cases undergoing angiographic embolization published between 1995 and 2015 were completed per Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.

RESULTS:



The systematic review (828 cases) found internal carotid artery (ICA) supply in 35.6% of tumors, and 30.8% of tumors received bilateral vascular supply. Our institutional data (n = 26) indicated 69% had bilateral supply. Meta-analysis of data from 5 studies demonstrated ICA/bilateral arterial supply is predictive of increased operative blood loss (P < .01).

CONCLUSION:

Complex vascular contributions to JNA are frequent, underreported, and portends increased blood loss. This information can justifiably be included in staging systems to enhance prognostic counseling of patients.

Head Neck. 2018 Feb;40(2):428-443

8. Etiology of sinonasal inverted papilloma: A narrative review.

[Wang MJ1, Noel JE2.](#)

Abstract

Objective:

Sinonasal inverted papilloma (IP) is a benign and uncommon tumor of the nasal cavity and paranasal sinuses with a tendency for recurrence and even malignant transformation. Though the morphology and clinical behavior of this lesion has been well described, its etiology remains controversial.

Methods:

Computerized searches were performed in PubMed, Scopus, and Google scholar through May 2015. In this review, etiologic factors including human papilloma virus (HPV), Epstein-Barr virus (EBV), cell cycle related proteins and angiogenic factors, occupational and environmental exposures, and chronic inflammation, will be discussed.

Results:

Many studies indicate that HPV has been detected in a significant percentage of IP, while EBV has not been shown to be significantly associated. Certain cell cycle regulatory factors and angiogenic proteins contribute to the dysregulation of proliferation and apoptosis, and facilitate migration and tumor invasion. Occupational exposures, such as welding and organic solvents, have been implicated, and smoking seems more critical to recurrence and dysplasia rather than initial IP occurrence. Chronic inflammation may also have a causative relationship with inverted papilloma, but the mechanism is unclear.

Conclusions:

Though etiology of sinonasal IP remains controversial, the studies reviewed here indicate a role for viral infection, cell cycle and angiogenic factors, environmental and occupational exposure,



and chronic inflammation. Further study on etiologic factors is necessary for clinical guidance and therapeutic targets.

World J Otorhinolaryngol Head Neck Surg. 2016 Dec 21;3(1):54-58.

9. The clinicopathological spectrum of olfactory neuroblastoma and sinonasal neuroendocrine neoplasms: Refinements in diagnostic criteria and impact of multimodal treatments on survival.

[Turri-Zanoni M1](#), [Maragliano R2](#), [Battaglia P3](#), [Giovannardi M4](#), [Antognoni P5](#), [Lombardi D6](#), [Morassi ML7](#), [Pasquini E8](#), [Tarchini P8](#), [Asioli S9](#), [Foschini MP9](#), [Sessa F2](#), [Nicolai P6](#), [Castelnuovo P3](#), [La Rosa S10](#).

Abstract

OBJECTIVES:

To provide a comprehensive review of the clinical and histopathological features of olfactory neuroblastoma (ONB) and other sinonasal neuroendocrine neoplasms (NENs), in order to refine diagnostic criteria, analyze treatment outcomes, and identify prognostic factors.

METHODS:

Data from an Italian multi-institutional database were analyzed. Patients were treated surgically via a minimally-invasive endoscopic approach followed by adjuvant radiotherapy or radiochemotherapy. Neoadjuvant cisplatin/etoposide chemotherapy was administered in cases of poorly-differentiated tumors. A centralized pathology review was performed in all cases. Patients were prospectively observed for survival. Overall (OS) and Disease-free survival (DFS) estimates were determined from Kaplan-Meier analysis and compared using the log-rank test. Statistically significant variables were entered in a multivariate Cox regression model.

RESULTS:

98 patients with a median follow-up of 53 months were included. Morphology review and the incorporation of cytokeratin 8/18 in the immunohistochemical panel modified the final diagnosis in 8/98 (8.2%) cases. The neoplasms were ultimately classified into four groups with different immunohistochemical profiles and clinical behaviors: ONB in 67 cases (5-year-OS, 91.6%); NEC (poorly-differentiated neuroendocrine carcinoma) in 22 cases (5-year-OS, 42.6%); MiNEN (mixed neuroendocrine/non-neuroendocrine neoplasm) in five cases (5-year-OS, 0%, 0/5 cases); and NET (well-differentiated neuroendocrine tumor) in four cases (5-year-OS, 50%, 2/4 cases). Hyams grade and Ki67 index were independent prognostic factors for ONB. Neoadjuvant chemotherapy appeared to be associated with improved OS and DFS for NEC, independent of other clinicopathological variables.



CONCLUSIONS:

Induction chemotherapy improves survival outcomes in patients affected by poorly-differentiated tumors. Recent advances in histopathological diagnosis, including CK8/18 staining, allow to plan the most appropriate range of multimodal treatments.

Oral Oncol. 2017 Nov;74:21-29.

10. Anosmia.

[Li X, Lui F1.](#)

Excerpt

Smell accounts for 95% to 99% of chemosensation; while, taste accounts for the rest of chemosensation. Anosmia is the inability to perceive smell/odor. It can be temporary or permanent and acquired or congenital. There are many causes. For example, any mechanical blockage preventing odors from reaching the olfactory nerves can cause the loss of sense of smell. This blockage can be due to inflammatory processes like simple infections causing mucus plugs or nasal polyps. Neurological causes can include disturbances to the sensory nerves that make up the olfactory bulb or anywhere along the path in which the signal of smell is transferred to the brain. To better understand this process, it is helpful to understand how people can perceive smell. When a particle with odorant molecules in the air is present, it travels up through the nasal canals to the nasal cavity, where olfactory receptor neurons extend from the olfactory bulb that sits on the cribriform plate of the brain. Each nasal cavity contains about 5 million receptor cells or neurons. There are 500 to 1000 different odor-binding proteins on the surface of these olfactory receptor cells. Each olfactory receptor cell expresses only one type of binding protein. These afferent olfactory neurons (cranial nerve I) facilitates the transfer of a chemical signal (particles in the air) to an electrical signal (sensed by afferent receptor neurons) which is then transferred and ultimately perceived by the brain. From the olfactory bulb, the signal is further processed by several other structures of the brain, including the piriform cortex, entorhinal cortex, amygdala, and hippocampus. Any blockage or destruction of the pathway along which smell is transferred and processed may result in anosmia.

StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2018-.
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