



Reader Digest

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False Computed Tomography Findings in Bilateral Choanal Atresia.

[Elsheikh E1, El-Anw MW ar 1.](#)

Abstract

Introduction Choanal atresia (CA) is a challenging surgical problem defined as a failure in the development of communication between the nasal cavity and nasopharynx. **Objective** The objective of this study is to describe computed tomography (CT) findings in cases with bilateral choanal atresia. **Methods** The study involved performing axial and coronal non-contrast CT scanning with 2-3 mm sections on 14 neonates that had bilateral CA. We used fiberoptic nasal endoscopy to confirm the diagnosis. We evaluated coronal CT to study the skull base area in such neonates. **Results** This study included 14 neonates with bilateral CA; with mean age of 7 ± 3.5 days. Mixed atretic plates were found in 12 (85.7%) cases while two (14.3%) had pure bony atresia. Isolated CA was detected in 9 cases (64.3%) and 5 (35.7%) cases had associated anomalies. Coronal CT showed soft tissue density in the nasal cavity that appeared to extend through an apparent defect in the nasal roof (cribriform plate), falsely diagnosed by radiologists as associated encephalocele. At the time of surgical repair, all patients showed thick tenacious mucous secretions in both nasal cavities and revealed no encephalocele. Nasal roof remained intact in all cases. **Conclusion** The thick secretion of bilateral CA could give a false encephalocele appearance on the CT. It is highly recommended to perform proper suction of the nasal cavity of suspected CA cases just before CT scanning.

Int Arch Otorhinolaryngol. 2016 Apr;20(2):163-5.

1. Pathogenesis of nasal bleeding in the patients presenting with arterial hypertension.

[Boiko NV1, Shatokhin YV1.](#)

Abstract

The objective of the present work was to study the pathogenetic mechanisms underlying nasal bleeding (NB) in the patients presenting with arterial hypertension (AH). A total of 47 patients with AH suffering from NB were available for the examination of whom 28 experienced a single bleeding episode and 19 had recurrent bleeding. 11 of them were treated by endonasal surgical intervention for the achievement of hemostasis. Simultaneously, mucoperichondrial biopsies were taken from the anterior septal portions and used for histological and ultrastructural investigations. The laboratory examination of all the patients has demonstrated hyperfibrinogenemia and the enhanced level of soluble monomeric fibrin complexes in the blood (especially in the patients with recurrent nasal bleeding) despite the normal platelet levels, prothrombin and thrombin times. These



findings gave reason to characterize the hemostasiological status of the patients as chronic compensated disseminated intravascular coagulation (DIC) syndrome. The histological study revealed hyaline, erythrocyte-rich and fibrin thrombi in the vessels of the microcirculatory system whereas ultrastructural studies showed desquamation of endothelial cells, massive desendothelization, and disintegration of the basal membrane with the exposure of subendothelium. It is supposed that these changes provoked the development of thrombosis and focal necrosis in nasal mucosa. The authors conclude that the cause of nasal bleeding associated with arterial hypertension is directly related to the lesions of vascular endothelial, microcirculatory disorders, and modification of the blood coagulation processes rather than to the mechanical rupture of blood vessels. These changes are believed to be responsible for the development of local intravascular coagulation.

[Vestn Otorinolaringol. 2015;80\(5\):41-5](#)

2. Treatment of congestion in upper respiratory diseases.

[Meltzer EO1, Caballero F, Fromer LM, Krouse JH, Scadding G.](#)

Abstract

Congestion, as a symptom of upper respiratory tract diseases including seasonal and perennial allergic rhinitis, acute and chronic rhinosinusitis, and nasal polyposis, is principally caused by mucosal inflammation. Though effective pharmacotherapy options exist, no agent is universally efficacious; therapeutic decisions must account for individual patient preferences. Oral H(1)-antihistamines, though effective for the common symptoms of allergic rhinitis, have modest decongestant action, as do leukotriene receptor antagonists. Intranasal antihistamines appear to improve congestion better than oral forms. Topical decongestants reduce congestion associated with allergic rhinitis, but local adverse effects make them unsuitable for long-term use. Oral decongestants show some efficacy against congestion in allergic rhinitis and the common cold, and can be combined with oral antihistamines. Intranasal corticosteroids have broad anti-inflammatory activities, are the most potent long-term pharmacologic treatment of congestion associated with allergic rhinitis, and show some congestion relief in rhinosinusitis and nasal polyposis. Immunotherapy and surgery may be used in some cases refractory to pharmacotherapy. Steps in congestion management include (1) diagnosis of the cause(s), (2) patient education and monitoring, (3) avoidance of environmental triggers where possible, (4) pharmacotherapy, and (5) immunotherapy (for patients with allergic rhinitis) or surgery for patients whose condition is otherwise uncontrolled.

[Int J Gen Med. 2010 Apr 8;3:69-91.](#)



3. Efficacy and safety of *D. pteronyssinus* Immunotherapy in Local Allergic Rhinitis: Double-Blind Placebo-Controlled Clinical Trial.

[Rondón C1, Campo P1, Salas M1, Aranda A2, Molina A2, González M2, Galindo L2, Mayorga C2, Torres MJ1, Blanca M1.](#)

Abstract

The effects of allergen immunotherapy (AIT) on local allergic rhinitis (LAR) are largely unknown. We conducted the first randomized, double-blind, placebo-controlled (DBPC), phase II trial of *D. pteronyssinus* (DP) subcutaneous AIT (DP-AIT) on LAR (clinicaltrials.gov identifier: NCT02123316). Thirty-six LAR patients received Pangramin PLUS DP or placebo for 24 months. The primary endpoints were symptoms, medication scores and medication free days. The secondary included skin test, serum specific-IgE and -IgG4, nasal allergen provocation test (NAPT), and adverse events. AIT-DP produced significant improvements in both primary and secondary endpoints vs placebo. After 12 months of AIT-DP we detected a significant and marked increase in allergen tolerance with negative NAPT in 50% of patients, and significant increases of serum sIgG4. Immunotherapy was well-tolerated, no systemic reactions were reported. This study demonstrated that AIT-DP is a safe and clinically effective treatment for LAR, confirming that LAR is a new indication for AIT.

Allergy. 2016 Mar 23.

4. Surgery of the nose and paranasal sinuses.

[Hofer M, Dacho A, Dietz A.](#)

Abstract

A compromised overview of surgical techniques regarding the nose (functional) and paranasal sinus inflammation surgical treatment is exposed in this article. The nasal septum is within the focus for function, form and stability for the nasal structure (especially for tip and back of the nose) and for success of a rhinoplasty. An important role play the lower nasal turbinates regulating nasal air flow and thus having a great effect after turbinate surgery (submucosal resection and lateral fracturing). The endonasal endoscopy is of utmost importance for diagnosis, therapy and detection of recurrence. In severe cases of nasal polyps, functional endoscopic sinus surgery (FESS) remains the ultimate therapy. However, the indication to operate will be carried out after exhaustion of medical treatment. The most important recurrent prophylaxis for rhino sinusitis and nasal polyps is an appropriate post operative nasal care.

Laryngorhinootologie. 2016 Jan;95(1):51-65; quiz 66-7



5. Role of corticosteroids in Functional Endoscopic Sinus Surgery--a systematic review and meta-analysis.

[Pundir V1](#), [Pundir J2](#), [Lancaster G3](#), [Baer S4](#), [Kirkland P4](#), [Cornet M1](#), [Lourijisen ES1](#), [Georgalas C1](#), [Fokkens WJ1](#).

Abstract

BACKGROUND:

The aim of our study is to systematically review the existing evidence on the role of corticosteroids in patients undergoing functional endoscopic sinus surgery (FESS).

METHODOLOGY:

Systematic search of MEDLINE (1950- 2014), EMBASE (1980-2014), metaRegister, Cochrane Library and ISI conference proceedings was carried out.

RESULTS:

Eighteen randomised controlled trials with 1309 patients were included. Use of local and/or systemic corticosteroids with FESS was reported in four categories; operative, anaesthesia related, post-operative outcomes and risk of recurrence. Meta-analysis for operative outcomes demonstrated that, mean operative time (MD -10.70 minutes; 95% CI -15.86, -5.55; P <0.0001) and mean estimated blood loss (MD -28.32 mls; 95% CI -40.93, -15.72; P <0.0001) was significantly lower; and surgical field quality (MD -0.81; 95% CI -1.32, -0.30; P = 0.002) was significantly better in corticosteroid group. Meta-analysis showed that post-operative endoscopic scores (SMD -0.39; 95% CI -0.60, -0.17; P = 0.0004) were significantly better in corticosteroid group compared to no corticosteroid group. There was no increase in risk of sinusitis (RR 0.64; 95% CI 0.32, 1.30; P = 0.22) between use of corticosteroids and no corticosteroids; There was no significant difference in recurrence risk of chronic rhinosinusitis (CRS) in mixed population studies (RR 0.77; 95% CI 0.35, 1.70; P = 0.52) between the two groups but analysis of studies reporting on chronic rhinosinusitis with nasal polyps (CRSwNP) (RR 0.64; 95% CI 0.45, 0.91; P=0.01) showed significant difference in favour of the corticosteroid group.

CONCLUSION:

Pre-operative use of local and/or systemic corticosteroids in FESS, results in significantly reduced blood loss, shorter operative time and improved surgical field quality. Studies are limited on the intra-operative use of corticosteroids to reduce postoperative pain. Postoperative corticosteroids improve postoperative endoscopic scores in CRS and recurrence rates in cases of CRSwNP.

Rhinology. 2016 Mar;54(1):3-19. doi: 10.4193/Rhin15.079.



6. Microbiology of chronic rhinosinusitis.

[Brook I1.](#)

Abstract

Most sinus infections are viral and only a small percentage develop bacterial infection. Rhino-, influenza, and para-influenza viruses are the most frequent viral causes of sinusitis. The most common bacterial isolates from children and adult patients with community-acquired acute bacterial sinusitis are *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*, and *Streptococcus pyogenes*. *Staphylococcus aureus* and anaerobic organisms (*Prevotella* and *Porphyromonas*, *Fusobacterium*, and *Peptostreptococcus* spp.) are the commonest isolates in chronic rhinosinusitis (CRS). Aerobic and anaerobic beta lactamase-producing bacteria (BLPB) were recovered from over a third of these patients. Methicillin-resistant *S. aureus* (MRSA) accounted for over 60 % of *S. aureus* isolates. *Pseudomonas aeruginosa* and other aerobic and facultative Gram-negative rods are frequently recovered in nosocomial sinusitis, the immunocompromised host, individuals with human immunodeficiency virus infection, and in cystic fibrosis. The CRS infection evolves the formation of a biofilm that might play a significant role in the pathogenesis and persistence of CRS. The microbiology of sinusitis is influenced by previous antimicrobial therapy, vaccinations, and the presence of normal flora capable of interfering with the growth of pathogens. Recognition of the unique microbiology of CRS and their antimicrobial susceptibility is of great importance when selecting antimicrobial therapy.

Eur J Clin Microbiol Infect Dis. 2016 Apr 16.

7. Results of transnasal transsial sphenoidotomy in 79 cases of chronic sphenoid sinusitis.

[Massoubre J1, Saroul N1, Vokwely JE2, Lietin B1, Mom T1, Gilain L3.](#)

Abstract

OBJECTIVE:

This study was designed to retrospectively review the postoperative results of transnasal transsial sphenoidotomy in 79 patients with isolated chronic sphenoid sinusitis operated between 1995 and 2013 and evaluate the recurrence rate due to postoperative closure of the sphenoidotomy.

PATIENTS AND METHODS:

Seventy-nine patients, 44 women and 35 men (M:F sex ratio: 0.79) aged 10 to 84 years (mean age: 48), were included. The most common presenting symptom was headache in 61% of cases. Visual disturbances were present in three cases. The diagnostic work-up comprised nasal endoscopy, computed tomography (CT) and magnetic resonance imaging (MRI) of the sinuses. The surgical indication was based on failure of antibiotic therapy and/or the nature and severity of sphenoid sinusitis. All patients were operated by endoscopic transnasal transsial sphenoidotomy. Samples were taken for histological, bacteriological and mycological examination.



RESULTS:

No intraoperative or immediate postoperative complications were observed. Nature of the lesion: forty-seven patients (59.5%) presented nonspecific inflammatory lesions with negative bacterial or fungal culture and inflammatory mucosal changes, 19 patients (24%) had fungal sinusitis presenting as a fungus ball and 13 patients (16.4%) had documented bacterial sinusitis. Mean postoperative follow-up was 7.4 months (range: 6-48). No recurrence of the sinusitis or symptoms was observed in 71 cases (89.8%). Recurrence: eight cases (10.2%) of postoperative closure of the sphenoidotomy were observed, requiring one (6 cases) or several (2 cases) reoperations with a mean of 16.4 months after the initial procedure. Symptoms of recurrence consisted of varying degrees of headache, with similar symptoms to those of the first episode in 7 cases, and retro-orbital headache in 1 case. Reoperation was performed via a transnasal transsial approach in 6 cases and a transethmoidal approach in 2 cases.

CONCLUSION:

The transnasal transsial surgical approach is a safe and effective procedure for the treatment of isolated sphenoid sinusitis. However, the recurrence rate due to postoperative closure of the sphenoidotomy observed in our series raises the question of postoperative maintenance of a patent and functional sphenoidotomy

Eur Ann Otorhinolaryngol Head Neck Dis. 2016 Apr 11.

8. Clinical management of squamous cell carcinoma associated with sinonasal inverted papilloma.

[Yasumatsu R1, Nakashima T2, Sato M2, Nakano T2, Kogo R2, Hashimoto K2, Sawatsubashi M2, Nakagawa T2.](#)

Abstract

OBJECTIVE:

The aim of this study was to investigate the clinical features and prognosis of patients with squamous cell carcinoma (SCC) associated with sinonasal inverted papilloma (IP).

METHODS:

The medical records of 95 patients who were diagnosed with IP or SCC associated with IP were retrospectively reviewed. Out of 95 patients, 15 were diagnosed with SCC associated with IP. The clinical characteristics, treatment modalities, and survival outcomes of the patients were analyzed.



RESULTS:

The incidence of SCC associated with IP was 15.8%. Although differential diagnosis between IP and SCC associated with IP is difficult, epistaxis may be the specific symptom in SCC associated with IP cases. The 3-year disease-specific survival rate was higher in cases with T1, 2 and 3 than in cases with T4. There was no significant difference in survival rate between maxillary sinus and other primary sites. On the other hand, there was a significant difference in survival rate between the microscopic SCC with IP cases and the other cases. In addition, the patients with <70 years old better than those with >70 years old with a 3-year disease free survival of 80% versus 0%.

CONCLUSIONS:

Some T4 patients were found to have a highly aggressive disease. Therefore, complete surgical resection followed by chemo-radiation therapy is the recommended treatment for patients with T4 disease to control of the primary tumor site.

Auris Nasus Larynx. 2016 Apr 20. pii: S0385-8146(16)30113-4.

9. Adjunctive Treatment in Juvenile Nasopharyngeal Angiofibroma: How Should We Approach Recurrence?

[Scholfield DW1, Brundler MA, McDermott AL, Mussai F, Kearns P.](#)

Abstract

A recent case of advanced, recurrent juvenile nasopharyngeal angiofibroma (JNA) at our institution has highlighted the limited evidence regarding adjunctive treatment. We present the case of a 10-year-old boy who is the first to undergo multiple-staged surgical resections alongside vincristine treatment. We performed a review of the literature analyzing the roles of radiation therapy, cytotoxic drugs, and novel targeted agents in JNA relapse. Small cohort studies suggest radiotherapy and flutamide are the most rational treatment options for residual and recurrent JNA. Our review highlights the need for further research into the management of primary and recurrent JNA.

J Pediatr Hematol Oncol. 2016 Apr;38(3):235-9.