Pan Arab Rhinology Society
PARS Reader's Digest

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

1. To stent or not to stent? A meta-analysis of endonasal congenital bilateral choanal atresia repair.

Strychowsky J, Kawai K, Moritz E, Rahbar R, Adil E.

Abstract

OBJECTIVES:

The use of nasal stents as a postoperative adjunct following repair of choanal atresia remains controversial. The study objective was to systematically review the literature regarding the efficacy and safety of stenting following transnasal endoscopic repair of bilateral choanal atresia.

STUDY DESIGN:

Systematic review with meta-analysis.

METHODS:

A comprehensive search in PubMed, EMBASE, CINAHL, and the Cochrane Library was conducted. Inclusion criteria included articles written in the English language with five or more subjects and clear intervention data and outcomes. Two independent reviewers screened studies for eligibility, appraised the level of evidence, extracted data, and resolved discrepancies by consensus. Successful surgery was defined as the absence of restenosis.

RESULTS:

Of 154 identified studies, 15 met inclusion criteria. Levels of evidence varied from level 3 to 4. Mean age at surgery ranged from 5 days to 25 months. Thirteen studies (n = 167 patients) included patients who were stented; the weighted pooled proportion of successful surgery was 65% (95% confidence interval [CI], 49-76%). Mean duration of stenting ranged from 48 hours to 16 weeks. Six studies (n = 42) evaluated patients who were not stented; the weighted pooled proportion of successful surgery was 64% (95% CI, 42-84%). Complications associated with stenting included alar injury, vestibular stenosis, columellar tear, and stent dislodgement or blockage.

CONCLUSIONS:

Success rates for bilateral choanal atresia repair were similar with and without the use of nasal stents. The use of nasal stents may be associated with more complications. There is insufficient data to determine if mitomycin C is a useful therapeutic adjunct.

LEVEL OF EVIDENCE:

NA Laryngoscope, 2015

Laryngoscope. 2015 May 25

2. [Prediction of the original location of sinonasal inverted papilloma by preoperative imaging].

[Article in Chinese]
Fang G, Wang C, Zhang L.

Abstract

Sinonasal inverted papilloma (SNIP) is one of the most common benign sinonasal tumors demonstrating a high recurrence rate after surgery, and sometimes presents malignant tendency or coexists squamous cell carcinoma. Therefore, it is essential to achieve complete surgical resection, especially the original location of SNIP. In this paper, we evaluated the predictability of preoperative CT and magnetic resonance imaging (MRI) for localization of SNIP origin.

Lin Chung Er Bi Yan HouTou Jing WaiKeZaZhi. 2014 Dec;28(23):1902-6

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3. Hereditary haemorrhagic telangiectasia.

Rimmer J, Lund V.

Abstract

BACKGROUND:

Hereditary haemorrhagic telangiectasia is an autosomal dominant vascular disease characterized by recurrent epistaxis, mucocutaneous telangiectasia and visceral arteriovenous malformations.

METHODOLOGY:

The genetic basis and pathophysiology of the disease are discussed. Diagnostic criteria and the clinical course of the condition are considered. The current management options, both medical and surgical, are reviewed.

CONCLUSIONS:

Hereditary haemorrhagic telangiectasia requires specialist treatment for the problems it causes, and is best managed in specialist centers. Epistaxis is often the major symptom, significantly affecting

patients` quality of life. An understanding of the available treatment options is therefore important for the otorhinolaryngologist

Rhinology. 2015 Jun; 53(2):129-34.

4. Developing a laddered algorithm for the management of intractable epistaxis: a risk analysis.

Leung RM, Smith TL, Rudmik L.

Abstract

IMPORTANCE:

For patients with epistaxis in whom initial interventions, such as anterior packing and cauterization, had failed, options including prolonged posterior packing, transnasal endoscopic sphenopalatine artery ligation (TESPAL), and embolization are available. However, it is unclear which interventions should be attempted and in which order. While cost-effectiveness analyses have suggested that TESPAL is the most responsible use of health care resources, physicians must also consider patient risk to maintain a patient-centered decision-making process.

OBJECTIVE:

To quantify the risk associated with the management of intractable epistaxis.

DESIGN AND SETTING:

A risk analysis was performed using literature-reported probabilities of treatment failure and adverse event likelihoods in an emergency department and otolaryngology hospital admissions setting. The literature search included articles from 1980 to May 2014. The analysis was modeled for a 50-year-old man with no other medical comorbidities. Severities of complications were modeled based on Environmental Protection Agency recommendations, and health state utilities were monetized based on a willingness to pay $22 500 per quality-adjusted life-year. Six management strategies were developed using posterior packing, TESPAL, and embolization in various sequences (P, T, and E, respectively).

MAIN OUTCOMES AND MEASURES:

Total risk associated with each algorithm quantified in US dollars.

RESULTS:

Algorithms involving posterior packing and TESPAL as first-line interventions were found to be similarly low risk. The lowest-risk approaches were P-T-E ($2437.99 [range, $1482.83-$6976.40]), T-P-E ($2840.65 [range, $1136.89-$8604.97]), and T-E-P ($2867.82 [range, $1141.05-$9833.96]). Embolization as a first-line treatment raised the total risk significantly owing to the risk

of cerebrovascular events (E-T-P, $11 945.42 [range, $3911.43-$31 847.00]; and E-P-T, $11 945.71 [range, $3919.91-$31 767.66]).

CONCLUSIONS AND RELEVANCE:

Laddered approaches using TESPAL and posterior packing appear to provide the lowest risk. Combining risk and cost-effectiveness perspectives, we recommend a laddered approach to intractable epistaxis with TESPAL first, followed by either embolization or posterior packing

JAMA Otolaryngol Head Neck Surg. 2015 May 1; 141(5):405-9

5. Tranexamic Acid for Epistaxis-A Promising Treatment That Deserves Further Study.

Clinkard D, Barbic D

Abstract

Clinical Question Does the application of topical tranexamic acid reduce bleeding as compared to anterior packing? Article Chosen Zahed R, Moharamzadeh P, Alizadeharasi S, et al. A new and rapid method for epistaxis treatment using injectable form of tranexamic acid topically: a randomized controlled trial. Am J Emerg Med 2013; 31(9):1389-92.

OBJECTIVES:

To determine if topically applied tranexamic acid reduces bleeding time in epistaxis.

CJEM. 2015 Jun 19:1-2

6. AAOA asthma primer: improvement and prevention of asthma with concomitant treatment of allergic rhinitis and allergen-specific therapy.

Mener DJ1, Lin SY1.

Abstract

BACKGROUND:

Asthma and allergic rhinitis are 2 of the most prevalent chronic medical diseases. Asthma is estimated to affect 8% of adults and 9% of children, with nearly 300 million people affected worldwide. Poorly controlled allergic rhinitis may be associated with worsening asthma symptoms over time. Various treatments have been proposed in the improvement and prevention of asthma in children and adults with allergic symptoms, which have included pharmacotherapy with antihistamines and topical intranasal corticosteroids, as well as allergen-specific immunotherapy.

METHODS:

Articles were selected through PubMed and personal knowledge of the authors based on a comprehensive literature review examining whether treatment of allergic rhinitis improves and/or prevents concomitant symptoms of asthma. The largest and highest-quality studies were included in the literature review. The search selection was not standardized. Articles written in a language other than English were excluded.

RESULTS:

Clinical trials have showed improvement in asthma symptoms with concomitant treatment of allergic rhinitis with antihistamines and topical intranasal corticosteroids, though improvement in objective pulmonary function parameters has not been uniformly demonstrated with antihistamine use alone. There is very strong evidence to suggest that subcutaneous and sublingual immunotherapy may in addition prevent the progression of asthma in high-risk atopic patients by inducing immunological tolerance.

CONCLUSION:

Traditional pharmacotherapy with antihistamines and topical intranasal steroids has been shown to improve allergic rhinitis symptoms with concomitant allergic asthma; however, only allergen-specific immunotherapy offers long-term control in improving asthma symptoms, exacerbations, and likely ultimate prevention in developing asthma.

Int Forum Allergy Rhinol. 2015 Jun 13

7. [Chronic rhinosinusitis].

[Article in German]
Cuevas M, Zahnert T.

Abstract

Chronic Rhinosinusitis (CRS) is a common disease with a major impact on quality of life. Its etiology is multifactorial and the causal pathology is an inflammation and not an infection. The affected region is the nasal mucosa as well as the mucosa of the sinuses. The symptoms are nasal obstruction, nasal discharge (anterior/post nasal drip), facial pain or pressure and/or olfactory disorder for more than 12 weeks. Beside association to hereditary or systemic diseases, CRS can be divided in chronic local findings (e. g. dental origin, muco- or pyocele, local mycosis, choanal polyp) and general CRS. The latter appears as CRS with nasal polyps or without nasal polyps. According to this, nasal endoscopy combined with investigation for the above mentioned symptoms is essential to diagnose CRS. In order to indicate and plan surgical treatment, CT-scans are necessary. Furthermore, diagnostic tools such as allergy tests, olfactory assessment, laboratory and microbiologic examination, biopsies and tests for aspirin hypersensitivity complete the diagnostic pathway of CRS. The therapeutic approach is local and if necessary oral application of steroids, nasal saline douche and oral long term antibiotics. If this conservative therapy leads to no effect, surgical treatment in terms of functional endoscopic sinus surgery (FESS) has to be considered.

Laryngorhinootologie. 2015 Jun; 94(6):395-417.

8. Current therapeutic protocols for chronic granulomatous fungal sinusitis.

Rupa V, Maheswaran S, Ebenezer J, Mathews SS.

Abstract

BACKGROUND:

The treatment of chronic granulomatous fungal sinusitis (CGFS), a rare form of invasive fungal sinusitis, is controversial.

AIM:

To assess the response to postoperative antifungal therapy in patients with CGFS and suggest an effective treatment protocol.

METHODOLOGY:

Clinical records of patients with CGFS who had undergone excisive surgery followed by antifungal therapy were reviewed to assess current disease status.

RESULTS:

Fourteen male and 4 female patients were diagnosed with CGFS, based on typical histopathological and fungal smear/ culture results. Aspergillus flavus was isolated from 88.9% cases. Stage 1 patients had resectable sinonasal disease, stage 2 had additional spread to orbit/palate and stage 3 had extensive disease. Follow-up ranged from 6 months to 8 years. Residual disease was seen in all but one patient who received amphotericin B as first line therapy and in none of those who received itraconazole or voriconazole. Even those who received azoles as second line therapy were disease free at last follow-up.

CONCLUSION:

Surgery followed by itraconazole or voriconazole for Stage 1 and 2 disease and voriconazole for stage 3 disease is recommended for a good outcome. Amphotericin B is not recommended as first line therapy for CGFS.

Rhinology. 2015 Jun; 53(2):181-7.

9. Current indications for the osteoplastic flap.

[Article in English, Spanish]
Rivera T, Rodríguez M, Pulido N, García-Alcántara F, Sanz L.

Abstract

INTRODUCTION AND OBJECTIVES:

Endoscopic sinus surgery is the technique of choice in most of the frontal sinus diseases, both inflammatory and tumour-related. This is why the external approach using osteoplastic flap (OF) would be limited to cases with a difficult endoscopic approach. Our aim was to review the current indications of the osteoplastic flap in the treatment of frontal sinus pathology, through a retrospective study of patients undergoing this technique.

METHODS:

We performed a retrospective study of 14 patients who were treated with the osteoplastic flap procedure. All the surgical indication criteria, type of sinus disease, presence or absence of prior endoscopic surgery, surgical findings, complications and recurrence were reviewed.

RESULTS:

The pathologies found were 1 osteoma (7.1%), 3 inverted papilloma (21.4%) and 10 mucoceles (71.4%). Nine patients had a prior endoscopic surgery and 10 patients had an orbital dehiscence (9 mucocele, 1 papilloma). Frontal osteoma was Grade IV and the papilloma cases were Krouse Stage III. Surgical revision was required for 21.4%.

CONCLUSIONS:

The main indications for an OF in patients with inflammatory disease are lateral extension and frontal recess neo-osteogenesis. In osteoma cases, it depends on the size of the tumour. In inverted papilloma cases, the indication is multifocal implantation with origin in the anterior and lateral wall. In all cases, performing the osteoplastic flap must be individualised

ActaOtorrinolaringol Esp. 2015 May 26.

10. Long-term follow-up of posttraumatic olfactory disorders.

Welge-LüssenA, Hilgenfeld A, Meusel T, Hummel T.

Abstract

OBJECTIVE:

This study aims to determine the long-term recovery rate of posttraumatic olfactory disorders and to evaluate whether a lateralized disorder influences recovery.

METHOD:

Olfactory function of 67 patients with posttraumatic olfactory disorders were examined twice using the `Sniffin` Sticks` test battery. Olfactory function was classified based on composite TDI (Threshold, Discrimination and Identification) score. Subjective impairment was rated by visual analogue scale ranging from 0 to 10.

RESULTS:

First and second examinations were conducted an average of 16.7 months and 74 months after trauma, respectively. From first to second examination, mean TDI score of the better nostril increased significantly, the number of patients with anosmia of the better nostril decreased, and number of hyposmic and normosmic patients increased. Subjective impairment decreased. Neither age, sex, nor side differences between nostrils affected improvement.

CONCLUSION:

After the follow-up period, in 27% of the patients the TDI score improved ≥ 6 points score and subjective impairment decreased. A follow-up period of more than 2 years is recommended.

Rhinology. 2012 Mar; 50(1):67-72.