



Reader Digest

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1. Patients with congenital choanal atresia treated by transnasal endoscopic surgery.

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Author information

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Abstract

Congenital choanal atresia (CCA) is defined as a congenital failure in the development of communication between the nasal cavity and nasopharynx in newborns. It is the most common congenital anomaly of nose. Most of the patients presented with unilateral CCA. Neonates with bilateral CCA have severe respiratory distress after birth. Airway control with orotracheal intubation should be done immediately to save the life of neonate with bilateral CCA. After airway control, surgery should be performed as soon as possible. The aim of surgery is to create a patent nasal passage and to prevent restenosis with minimal morbidity. Transnasal endoscopic surgery of CCA has become the most popular treatment method. The retrospective review of 33 patients with CCA was presented in this study. The patients who were diagnosed at the neonate period and operated on in 6 months after birth were grouped as I (neonate). The patients who were diagnosed 6 months after birth were grouped as II (child-young adult). All patients were treated by transnasal endoscopic surgery. Stent were put in all patients to prevent restenosis. Although the restenosis rate was higher in group I (53.8%) than in group II (23.1%), it did not cause a statistically significant difference. Overall success rate of our surgical approach was 61.5%. Despite the surgical developments and many treatment modalities, restenosis is still the most challenging problem in CCA.

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2. The impact of different nasal packings on postoperative complications.

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Abstract

OBJECTIVE:

The objective of this study was to find out if there is any association between the use of nasal packings and nasal synechia formation, septal perforation, postoperative infection and epistaxis in patients who underwent septoplasty and concha reduction operations.

METHODS:

This retrospective study was conducted at a tertiary referral center. One hundred thirty patients were randomly selected among patients who underwent endonasal surgery in Namık Kemal University Hospital between January 1st 2012 and August 1st 2013. Retrospective analysis of these patients' files, including operative reports and follow-up notes, was done. The postoperative findings of patients who had septal splints and Merocel nasal packings were compared and analyzed for statistical significance.



RESULTS:

The results of the study showed a statistically significant difference in the frequency of synechia formation between two groups ($p < 0.05$). The frequency of synechia formation was found to be higher in the Merocel packing group. However, no statistically significant difference was found between groups in terms of postoperative infection, septal perforation, and epistaxis ($p > 0.05$).

CONCLUSION:

Our findings suggest that intranasal splints are superior to Merocel nasal packings in terms of preventing nasal synechia formation. Insertion of a septal splint after nasal surgery should be preferred to avoid this complication. On the other hand, other factors should be sought in the etiology of postoperative infection, septal perforation, and epistaxis

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3. Comparison of ultrasonography-assisted closed reduction with conventional closed reduction for the treatment of acute nasal fractures.

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Abstract

Ultrasonography has often been reported to be a useful tool in cases of nasal fracture, not only for diagnosing such fractures but also for intraoperatively assessing surgical outcomes. In this study, we examined the utility of ultrasonography for intraoperatively assessing the results of surgery for acute nasal fractures. In the conventional group, the outcome of each fracture



reduction procedure was intraoperatively confirmed by visual inspection and palpation. In the ultrasound group, intraoperative ultrasonography was used to assess the condition of the fracture before and after closed reduction. The outcomes of the reduction procedures and the reoperation rate were compared between the two groups. According to computed tomography-based evaluations, there were no significant differences in the outcomes of the reduction procedures between the two groups ($p > 0.05$). As for the reoperation rate, two patients (2.8%) in the conventional group underwent reoperations, but no patient (0%) required reoperations in the ultrasound group. However, the difference in the reoperation rate between the two groups was not significant ($p > 0.05$). These results indicate that visual inspection and palpation are as reliable as ultrasonography for intraoperatively assessing the outcomes of surgery for acute nasal fractures. Surgeons should not depend on ultrasonography alone, but rather should use it in addition to visual inspection and palpation.

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4. Allergy immunotherapy: what is the evidence for cost saving?

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Abstract

PURPOSE OF REVIEW:

Given the widespread prevalence of allergic disease, its substantially associated clinical and economic burden, the unique disease-modifying benefits of allergy immunotherapy (AIT), and increased availability of sublingual immunotherapy (SLIT), a critical update of the evidence for AIT-related cost savings [for both subcutaneous immunotherapy (SCIT) and SLIT] is particularly relevant and timely. The present article reviews the evidence for SCIT-related and SLIT-related cost savings derived from a systematic review of the published literature.

RECENT FINDINGS:

Examined were 24 publications pertaining to the health economics of AIT. Except for one early study comparing the costs of AIT to symptomatic drug treatment (SDT), the remainder provide compelling evidence for AIT cost savings (whether SCIT or SLIT) over SDT. Furthermore, of the six studies comparing cost outcomes of SLIT to SCIT, four reported cost savings favoring SLIT.



SUMMARY:

This review, spanning research from Southern Europe, Scandinavia, Northern Europe, North America, and the Czech Republic, encompasses a range of perennial and seasonal allergic conditions, including allergic asthma, allergic rhinitis with or without asthma, and rhinoconjunctivitis with or without allergic rhinitis due to house dust mite, grass or ragweed pollen, or a mixture of various allergens. All but one study compellingly demonstrate cost savings conferred by AIT over SDT

Curr Opin Allergy Clin Immunol. 2014 Jun 17

5. Objective measures for functional diagnostic of the upper airways: practical aspects.

Chaves C, de Andrade CR, Ibiapina C.

Abstract

OBJECTIVE:

To review the main papers published on the main available tests to obtain objective values of nasal patency and to demonstrate aspects of their use in medical practice.

METHODOLOGY:

We performed a non-systematic review of the MEDLINE and LILACS databases, and the most relevant articles were selected.

RESULTS:

Objective evaluations are important in epidemiological studies and in monitoring of patients with nasal obstruction. There is a wide variety of objective tests of nasal function; among them acoustic rhinometry, rhinomanometry, and peak nasal inspiratory flow (PNIF) are currently the most used tests.

CONCLUSION:

The choice of the method to evaluate nasal function depends on the conditions of each health service. PNIF has been highlighted as a simple and reliable alternative that provides easy-to-interpret results, and is thus an attractive method for clinical practice.

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6. Usefulness of partial uncinectomy in patients with localized maxillary sinus pathology.

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Abstract

PURPOSE:

Conventional total uncinectomy may be unnecessary in localized maxillary sinus lesion. Partial removal of the uncinate process and middle meatal antrostomy would be sufficient to eradicate the pathological condition. Therefore, we aimed to evaluate the efficacy of partial uncinectomy versus total removal of the uncinate process in patients with localized maxillary sinus disease.

METHODS:

In total, 25 patients were assigned randomly to partial and total uncinectomy groups. Preoperative computed tomography established that all patients had localized pathology in the maxillary sinus. The lower half of the uncinate process was removed in the partial uncinectomy group, while the total uncinectomy group underwent the conventional surgery. Time required for the uncinectomy, healing period for the uncinectomy site, incidence of lamina papyracea or nasolacrimal duct injury, obstruction or stenosis of the frontal recess, and incidence of synechia formation in the middle meatus were compared between the groups.

RESULTS:

All patients completed the follow-up and were included in the analysis. Surgical indications included chronic maxillary sinusitis, fungal sinusitis, antrochoanal polyp, and odontogenic sinusitis. Operation durations and healing periods were significantly shorter in the partial uncinectomy group. One patient had a minor injury to the lamina papyracea and two



patients showed partial synechia formations in the total uncinectomy group. However, other parameters did not differ significantly between the groups.

CONCLUSIONS:

Partial uncinectomy may be useful in patients with pathological conditions confined to the maxillary sinus. Shorter operation duration, more rapid healing, and lower incidence of complications are advantages over a conventional total uncinectomy

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7. Nasal polyps.

Settipane RA1, Peters AT, Chiu AG.

Author information

Abstract

Nasal polyps occur in 1-4% of the population, usually occurring in the setting of an underlying local or systemic disease. The most common associated condition is chronic rhinosinusitis (CRS). A high prevalence of nasal polyps is also seen in allergic fungal rhinosinusitis, aspirin-exacerbated respiratory disease, Churg-Strauss syndrome, and cystic fibrosis. In the setting of CRS, nasal polyps are not likely to be cured by either medical or surgical therapy; however, control is generally attainable. The best medical evidence supports the use of intranasal corticosteroids for maintenance therapy and short courses of oral corticosteroids for exacerbations. The evidence for short- and long-term antibiotics is much less robust. For patients with symptomatic nasal polyposis nonresponsive to medical therapies, functional endoscopic sinus surgery provides an adjunctive therapeutic option

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8. Value of magnetic resonance imaging including dynamic contrast-enhanced magnetic resonance imaging in differentiation between inverted papilloma and malignant tumors in the nasal cavity.

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Abstract

BACKGROUND:

Distinguishing inverted papilloma (IP) from malignant tumors in the nasal cavity is difficult in a substantial number of cases, thus hindering the administration of appropriate therapeutic strategies. This study aimed to evaluate whether magnetic resonance imaging (MRI), including dynamic contrast enhanced MRI (DCE-MRI), could improve differentiation between IP and malignant tumors, and to identify which MRI features were the best in discriminating IP from malignant tumors in the nasal cavity.

METHODS:

Non-enhanced, static, and dynamic contrast enhanced MRI was performed in 88 patients with an IP or a malignant tumor in the nasal cavity that had been confirmed by histological results. MRI features of IP and malignant tumors including side, margin, T1 signal intensity, T1 homogeneity, T2 signal intensity, T2 homogeneity, lobulation signs, convoluted cerebriform pattern, extra-sinonasal involvement, pattern of enhancement, Tpeak, Tmax, CImax, and TIC type were evaluated and correlated with histological findings.

RESULTS:

There were significant differences between IP and malignant tumors in T2 homogeneity, lobulation signs, convoluted cerebriform pattern, extra-sinonasal involvement, Tpeak, Tmax and TIC types. A convoluted cerebriform pattern had a higher sensitivity and specificity in diagnosis of IP while washout-type TIC had a higher sensitivity and specificity in diagnosis of malignant tumors in the nasal cavity. Non-enhanced combined with static and dynamic enhancement MRI was significantly superior to non-enhanced combined with static enhancement MRI in the differentiation of IP and malignant tumors in the nasal cavity. Multivariate logistic regression analysis identified that the best MRI features were a convoluted cerebriform pattern, extra-sinonasal involvement, and washout-type TIC for both observers (Wang XY and Zhang ZY).

CONCLUSION:

Non-enhanced and static combined with dynamic contrast-enhanced MRI improves differentiation of IP and malignant tumors in the nasal cavity.

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9. Endonasal endoscopic surgery for squamous cell carcinoma of the sinonasal cavities and skull base: Oncologic outcomes based on treatment strategy and tumor etiology.

de Almeida JR1, Su SY, Koutourousiou M, Vaz Guimaraes Filho F, Fernandez Miranda JC, Wang EW, Gardner PA, Snyderman CH.

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Abstract

Background Oncologic outcomes for sinonasal and skull base squamous cell carcinoma (SCC) treated with an endoscopic endonasal approach (EEA) needs investigation. Methods Patients with SCC treated with EEA were stratified by treatment strategy and tumor etiology and reviewed. Results Thirty-four patients were treated with EEA--27 had definitive resection and 7 had debulking surgery. In the definitive group, 17 had de novo tumors and 10 had tumors arising from inverted papilloma (IP). Definitive resection was associated with better 5-year disease-free (DFS) and overall survival (OS) than debulking (62% vs 17%, $p = 0.02$; and 78% vs 30%, $p = 0.03$). Patients with de novo tumors had similar 5-year DFS and OS to those arising from IP (62% vs 62%, $p = 0.75$; and 75% vs 86%, $p = 0.24$). Conclusions Definitive resection of sinonasal SCC with EEA provides sound oncologic outcomes. SCC arising from IP does not have prognostic significance. Head Neck, 2014

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10. The effect of nasal structure on olfactory function in patients with OSA.

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Abstract

The aim of this study was to investigate the relationship between nasal structure and olfactory function in patients with obstructive sleep apnea (OSA). Olfaction and nasal structure of 76 adults with OSA diagnosed by polysomnography were measured using acoustic rhinometry and the Sniffin, Sticks (SS) smell test at Anzhen Hospital, a major academic center in Beijing, China. We tested the hypothesis that nasal structure in these patients would correlate with objectively measured olfactory performance. Minimum cross-sectional area (MCA) of the nose was significantly correlated with SS composite score ($r = 0.434$, $p < 0.001$), a result that was driven by two of the test's three components: olfactory threshold (OT) ($r = 0.385$, $p = 0.001$) and olfactory discrimination (OD) ($r = 0.370$, $p = 0.001$) but not olfactory identification (OI) ($p > 0.05$). Additionally, nasal volume (NV) was associated with composite SS score ($r = 0.350$, $p = 0.002$), a finding driven by OT ($r = 0.283$, $p = 0.014$). These data suggest that nasal structure affects parameters of olfactory function, likely via alterations in nasal airflow. Thus, anatomic abnormalities and diseases involving airflow (such as OSA) may cause, in part, olfactory dysfunction that is amenable to treatment. We speculate that surgery that alters nasal volume and MCA may improve olfactory performance

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