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

1. Management of the Airway in Apert Syndrome.

Xie C1, De S, Selby A.

Abstract

The management of the airway in Apert syndrome is complex and multidisciplinary. This rare syndrome, occurring in up to approximately 1 in 65,000 live births, results in airway compromise at various anatomic levels, in addition to abnormal central respiratory drive. Obstructive apneas arise because of decreased airway caliber, which may occur in the form of congenital bony nasal stenosis, choanal atresia, a deviated nasal septum, a narrowed nasopharynx, a thick long soft palate, lateral palatal swellings, and a tracheal cartilage sleeve. Central apneas in Apert syndrome arise because of raised intracranial pressure and/or Chiari malformations. The purpose of this study was to investigate our treatment methods and outcomes in optimizing the airway in this complex, rare and interesting cohort of patients who present with airway compromise. Patients with Apert syndrome were retrospectively evaluated during a period from 1990 to 2013. Treatments for obstructive apnea were dilatation of nasal airways and choanal atresia repair, adenoidectomy, tonsillectomy, early midface advancement, and noninvasive ventilation. The insertion of ventriculoperitoneal shunts, fronto-orbital advancement, and Chiari decompression aid in managing central apneas. The authors present our experience at Alder Hey Children's Hospital, Liverpool, one of the 4 Supraregional Craniofacial Units in the United Kingdom

J Craniofac Surg. 2016 Jan;27(1):137-41.

2. Endoscopic sphenopalatine artery ligation for acute idiopathic epistaxis. Do anatomical variation and a limited evidence base raise questions regarding its place in management?

Ellinas A1, Jervis P1, Kenyon G2, Flood LM3..

Abstract

BACKGROUND:

Endoscopic sphenopalatine artery ligation is widely accepted as effective and safe for acute spontaneous epistaxis that is unresponsive to conservative management. As with many new procedures, it has been progressively adopted as common practice, despite a limited evidence base for its efficacy. Early reviews called for comparative trials to support its adoption, but subsequent literature largely consists of case series and narrative reviews. These have attempted to derive an algorithm to establish its place in management, but consensus is still lacking. Intuitively, although there are theoretical objections, an operation regarded as relatively simple, fast and safe hardly seems to demand high-level evidence of efficacy. Rhinologists may be influenced by years of personal experience and success with the technique.

However, estimates of the effect size and the added contribution to traditional surgical management are lacking. If the procedure could be shown to dramatically influence outcome, it should be standard practice and indispensable for all patients requiring operative intervention.

OBJECTIVES:

This paper systematically examined the literature, appraising the anatomical basis for such an approach and evidence for its efficacy. It questions whether any units unable to consistently offer endoscopic sphenopalatine artery ligation should be undertaking surgical management of acute epistaxis

J Laryngol Otol. 2017 Apr;131(4):290-297.

3. Video-Assisted Septoplasty.

Rahal A1,2, Charron MP3.

Abstract

Teaching and learning septoplasty is challenging due to the limited and intermittent visualization of the surgical site by the resident and the mentor. Our objective was to develop and test the surgical tools required to achieve optimal visualization of the surgical field during septal surgery without having to modify the way conventional septoplasty is performed. A flexible high-definition endoscope is mounted on a modified 50-mm nasal speculum. This allows real-time visualization of all steps of the surgery on the video monitor. The residents can follow all intranasal surgical steps on the monitor while the surgeon is operating. In the same way, the mentor can guide the resident through the surgery and provide more appropriate feedback. All steps of the septal surgery can be recorded for later educational use. Video-assisted septoplasty will help surgeons teach septal surgery more efficiently.

Otolaryngol Head Neck Surg. 2017 Feb 1:194599816686946.

4. The Nasal Fracture Algorithm: A Case for Protocol-Driven Management to Optimize Care and Resident Work Hours.

Lanigan A1, Lospinoso J2, Bowe SN3, Laury AM1.

Abstract

Since the initiation of resident duty hour restrictions, significant controversy has arisen regarding its impact on surgical resident training. We reviewed a singular facet of the otolaryngology residency experience, nasal bone fracture management, to identify if treatment standardization would improve care and efficiency. For 1 year, otolaryngology consults for isolated nasal fractures were analyzed to assess consultation trends, rate of intervention, and resident work hour utilization. Following a review of the literature, an evidence-based algorithm for management of nasal fractures was developed. Analysis revealed a potential improvement in intervention rate from 20% to 100% with utilization of the algorithm, with an 84% decrease in overall emergency room and inpatient consultations. Sixty-three hours of

otherwise lost resident time would be gained. In the setting of Accreditation for Graduate Medical Education duty hour restrictions, implementation of protocol-driven management may result in a decrease in work hours and serve as a model for more efficient otolaryngology care

Otolaryngol Head Neck Surg. 2017 Jan 1:194599816688179.

5. Do Nasal Surgeries Affect Mucociliary Clearance?

Aroor R1, Sunu Ali Z2, Gangadhara Somayaji KS3.

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Abstract

The study was conducted to assess the impact of different nasal surgeries on the nasal mucociliary clearance mechanism. Mucociliary function of the nasal mucosa of patients who were undergoing various nasal surgeries was assessed by the Saccharin test by placing 5 mg saccharin granule on the anterior end of the inferior turbinate 1 day prior to the surgery. The time required for the test subject to experience a sweet taste was measured in minutes. Post-operatively the test was repeated 6 weeks after the surgery and the test times were compared. A total of 60 patients were part of this study. Of the 60 cases, 19 cases had undergone only septoplasty, 13 cases had undergone only functional endoscopic sinus surgery (FESS), 25 cases had undergone septoplasty with FESS, 2 cases underwent septoplasty with bilateral partial inferior turbinectomy (PIT) and one case was submucous resection (SMR). Significant improvement in nasal mucociliary clearance was observed in all the patients after the procedures. Out of the 19 cases of septoplasty, 57.9 % showed improvement on the right side and 47.4 % on the left side. Out of the 13 cases of FESS, 61.5 % showed improvement on the right side and 69.2 % on the left side. Out of the 25 cases of FESS with septoplasty, 76.0 % showed improvement on both sides. The case of SMR did not show improvement. The 2 cases of septoplasty with PIT showed improvement. Statistically, highly significant improvement of test time was seen postoperatively as compared to pre-operatively. Among the surgical procedures, FESS with septoplasty showed better improvement as compared to the other procedures. Based on the study, we can conclude that nasal surgeries done for correction of septal deviation and rhino sinusitis significantly improves nasal mucociliary clearance mechanism thereby improving the physiological functions of the upper airway

Indian J Otolaryngol Head Neck Surg. 2017 Mar;69(1):24-28.

6. Sublingual immunotherapy tablets as a disease-modifying add-on treatment option to pharmacotherapy for allergic rhinitis and asthma.

Brunton S1, Nelson HS2, Bernstein DI3, Lawton S4, Lu S5, Nolte H5.

Abstract

Allergic rhinitis (AR) with or without conjunctivitis (AR/C) is associated with a significant health and economic burden, and is often accompanied by asthma. Pharmacotherapies are the mainstay treatment

options for AR and asthma, but guidelines also recommend allergy immunotherapy (AIT). Unlike pharmacotherapies, AIT has the ability to modify the underlying immunologic mechanisms of AR and asthma with the potential for long-term benefits after treatment is discontinued. Immunotherapy may also prevent progression of AR/C to asthma. Sublingual immunotherapy (SLIT)-tablets are a self-administered alternative to subcutaneous immunotherapy that provide the benefits of AIT without the cost and inconvenience of frequent office visits or the discomfort of injections. SLIT-tablets are also an option that can be utilized by primary care clinicians. Pharmacotherapies are generally effective in mild disease although a number of patients remain uncontrolled. SLIT-tablets have proven efficacy for AR in adults, children, and poly-sensitized allergic patients. Indirect comparisons indicate that SLIT-tablets have superior or comparable efficacy compared with traditional pharmacotherapies for seasonal AR, and superior efficacy for perennial AR. House dust mite (HDM) SLIT-tablets have also demonstrated clinically relevant benefits for asthma, with significant observed reductions in daily inhaled corticosteroid use, risk of asthma exacerbations, and asthma symptoms. SLIT-tablets are well tolerated, with minimal risk of systemic allergic reactions. The most common treatment-related adverse events are oral site reactions such as oral pruritus and throat irritation. Based on the favorable efficacy and safety profile, as well as the convenience of at-home oral administration and disease-modifying effects, SLIT-tablets should be considered as an alternative or add-on treatment to pharmacotherapy for AR with or without conjunctivitis, and as an add-on treatment for HDM allergic asthma.

Postgrad Med. 2017 Mar 22.

7. Update on nonmalignant lesions of the inferior turbinate.

Goldfarb JM1, Goldfarb D, Rosen MR.

Abstract

PURPOSE OF REVIEW:

The inferior turbinates are routinely examined by otolaryngologists on anterior rhinoscopy and nasal endoscopy. Most lesions of the inferior turbinate are benign but can often be confused with malignancy. This review highlights the broad differential of nonmalignant lesions of the inferior turbinates and their management.

RECENT FINDINGS:

A variety of infectious, inflammatory, neoplastic, and vascular lesions may affect the inferior turbinates. The most common nonmalignant lesions of the sinonasal region are nasal polyps, inverted papillomas, hemangiomas, and angiofibromas. Early lesions are often asymptomatic and discovered incidentally on routine examination. As these lesions grow they present with nonspecific signs that can be seen in benign, malignant, and infectious etiologies. The most common signs and symptoms are nasal obstruction, rhinorrhea, epistaxis, sinusitis, and hyposmia. Most nonmalignant lesions have characteristic appearances but definitive diagnosis is achieved with biopsy or culture. If the lesions are small the biopsy itself is often curative.

SUMMARY:

Lesions of the inferior turbinates are rarely isolated to these structures alone. Careful examination can noninvasively assist in early diagnosis of extensive lesions. Once malignancy and processes such as invasive fungal sinusitis or inverted papillomas have been ruled out, treatment of these lesions is ordinarily noncomplicated and definitive.

Curr Opin Otolaryngol Head Neck Surg. 2017 Feb;25(1):69-72.

8. OSPs and ESPs and ISPs, Oh My! An Update on Sinonasal (Schneiderian) Papillomas.

Bishop JA[1,2].

Abstract

Sinonasal (Schneiderian) papillomas are benign neoplasms that arise in the sinonasal tract. Since their initial descriptions, sinonasal papillomas have triggered debate regarding their classification, etiology, rate or predictors of malignant transformation, and other issues. While significant strides have been made in recent years, there are still aspects of sinonasal papillomas that remain unclear even now. This review will serve to update the practicing pathologist on the current understanding of sinonasal papillomas

Head Neck Pathol. 2017 Mar 20.

9. Transoral endoscopic nasopharyngectomy with a flexible next-generation robotic surgical system.

Tsang RK[1], Holsinger FC[2].

Abstract

OBJECTIVES/HYPOTHESIS:

To determine the feasibility of transoral endoscopic nasopharyngectomy without division of the soft plate using a flexible, next-generation robotic surgical system.

STUDY DESIGN:

Preclinical anatomic study using four human cadavers.

METHODS:

Transoral resection of the nasopharyngeal wall with en-bloc resection of the cartilaginous Eustachian tube and dissection of the parapharyngeal fat space.

RESULTS:

The first flexible robotic surgical system has recently been described. We performed a series of laboratory experiments to determine whether this flexible system could be used to perform transoral robotic nasopharyngectomy. This novel system allowed docking of the patient-side cart at the side of the operating table. The cannula tip was placed approximately 12 cm from the edge of the retractor pointing superiorly toward the nasopharynx (NP). Retraction of the soft palate anteriorly and tonsillar pillars laterally with stay sutures expanded the velopharyngeal inlet, providing adequate space to deploy all four instruments (three surgical instruments and a camera) into the NP for dissection. All instruments could be deployed into the NP, without collision or restriction of joint movement in this cadaver model. Using this position and docking location, the new flexible surgical robot provided sufficient access, reach, and visualization to complete robotic nasopharyngectomy with en-bloc resection of the cartilaginous Eustachian tube.

CONCLUSION:

This feasibility study showed that transoral endoscopic nasopharyngectomy could be performed without compromising the integrity of the soft palate using a novel flexible robotic surgical system.

Laryngoscope. 2016 Oct;126(10):2257-62.

10. Anosmia: Differential diagnosis, evaluation, and management.

Scangas GA1, Bleier BS.

Abstract

The ability to scrutinize our surroundings remains heavily dependent on the sense of smell. From the ability to detect dangerous situations such as fires to the recollection of a fond memory triggered by an odor, the advantages of an intact olfactory system cannot be overstated. Outcomes studies have highlighted the profound negative impact of anosmia and parosmia on the overall quality of life. The National Institute on Deafness and Other Communication Disorders estimates that ~1.4% of the United States population experiences chronic olfactory dysfunction and smell loss. Efforts have focused on improving both the diagnosis of olfactory dysfunction through olfactory testing and improved reporting of treatment outcomes of olfactory training. The purpose of this article was to review the differential diagnosis, workup, and current treatment strategies of anosmia and smell disorders

Am J Rhinol Allergy. 2017 Jan 1;31(1):3-7.