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

1. Endoscopy of the Lacrimal Duct System in Children.

Heichel J[1], Bredehorn T[1], Struck HG[1].

Abstract

Background: Pathologies of the lacrimal duct system show a frequent occurrence in pediatric ophthalmology. Mostly, the connection between the nasolacrimal duct and the nose fails to open but also combined diseases or congenital anomalies may be the reason. Because of complications, the chance for healing after a conservative therapeutic approach decreases and surgical intervention is necessary. **Patients and Methods:** The opportunity for transcanalicular endoscopy of the lacrimal duct system in children is shown by the presentation of three different case reports. Typical clinical findings are given and the use of dacryoendoscopy for diagnostic and therapeutic benefit is pointed out. Therefore, we present an 8-week-old child, suffering recurrent purulent inflammation due to an amniotocele (1), a 5-year-old child having a congenital lacrimal fistula (2) and another 5-year-old child with a severe chronic dacryocystitis of both eyes after several lacrimal duct surgeries showing remaining intrasaccal silicone tubes (3).**Results:** In all these cases transcanalicular endoscopy could be used successfully for reconstruction of the lacrimal duct systems. A bullous Hasner's membrane could be localized and opened (1). The lacrimal fistula was identified to communicate with the common canaliculus and combined stenosis of the canaliculus and saccus were treated (2). In the third case fragments of intrasaccal silicone tubes could be localised and the foreign bodies could be evacuated by transcanalicular surgery (3). The children with lacrimal fistula and the intrasaccal foreign bodies were treated with self-threading silicone tubing which was removed three months later. In the follow-up period (16 months in case 2, 22 months in case 3 and 38 month in case 1) recurrences of the lacrimal pathologies or clinical complaints were absent. **Conclusion:** Transcanalicular endoscopy of the lacrimal duct system should not be regarded as the means of choice but it does offer additional diagnostic and therapeutic options for special indications. A main advantage of this kind of surgery is its minimally invasive character. Under visual control, topographic anatomy can be preserved. Dacryoendoscopy in children should be done only by experienced surgeons.

KlinMonblAugenheilkd. 2015 Apr 7

2. Thixotropy of nasal medications - its role in clinical practice.

Koźmiński M, Kupczyk M[1].

Abstract

Optimal medication should be characterized by good bioavailability, rapid onset of action, a long period of therapeutic activity, with preserved high safety profile and the lowest possible risk of side effects. Therefore, in addition to traditional drug administration routes, such as oral or injection, novel methods for drug applications, for example in the form of a nasal application have been developed. Because of the anatomy of the nose, drugs administered intranasally can be rapidly absorbed and, depending on the nature of the active substance, may act locally on the mucosa or can have a significant systemic effect. Most nasal

drugs are developed in the form of solution administered as aerosol. In some cases, these solutions are thixotropic. They are able to change their physical properties under agitation to facilitate supply of the drug and its adhesion to the mucosa. Intranasal corticosteroids represent the mainstay of treatment for any form of chronic allergic rhinitis (AR) and moderate to severe periodic AR, especially with impaired nasal obstruction and frequent occurrence of symptoms. The article discusses the rheological properties of intranasal corticosteroids, their role in therapy and efficacy in the everyday clinical practice.

PneumonolAlergol Pol. 2015; 83(2):157-63

3. The prevalence of clinical presentations and pathological characteristics of antrochoanal polyp.

Sarafraz M, Niazi A, Araghi S.

Abstract

OBJECTIVE:

Antrochoanal polyps (ACPs) originating from the maxillary sinus, are considered as benign inflammatory lesions. In fact, these polyps are the hypertrophy of the mucous membrane of the maxillary sinus, which for unknown reasons grow through the maxillary sinus ostium towards the other portions of the nasal cavity and the choana, such a way that they may grow all the way to the nasopharynx and even oropharynx. ACP is usually unilateral however, the bilateral forms have been observed in some instances. Its most frequent clinical manifestations are nasal obstruction and rhinorrhea, whereas in many cases some other presentations such as epistaxis, dyspnea, and dysphagia, and weight loss have been also noticed. The aim of this study was to investigate the relative prevalence of clinical manifestations and pathological characteristics in 87 patients with ACPs during a period of 15 years in this hospital.

METHODS:

It was a descriptive cross-sectional study, accomplished retrospectively, and based on existing data in the records of the patients admitted in Imam Khomeini Hospital of Ahvaz. In this study, the patients above 16 years old have been considered as adults. Each patient's data were collected using a questionnaire. Data analysis was performed by the statistical SPSS software (descriptive statistics and Chi-square test).

RESULTS:

87 patients were registered with the diagnosis of ACP during 1999 and 2014. Out of these patients 60% were females and 40% were males. Predominant clinical manifestation was nasal obstruction with an incidence of 39%; and the least frequent manifestation was weight loss with an incidence of 0%. Moreover, the left nasal cavity was more involved with the incidence of 55%. Among the existing surgical techniques. Functional Endoscopic Sinus Surgery (FESS), Caldwell- Luc procedure, and combined approach were the most common applied techniques, with frequencies of 64%, 24% and 12%, respectively. Confidence Interval (CI) = 0.03 ± 0.2, Odd ratio = 0.26, and p = 0.21.

CONCLUSION:

Nasal obstruction was the predominant clinical symptom of ACP. The left nasal cavity was more involved than the right-side. FESS was the commonest employed surgical procedure; and the inflammatory pattern has been the most pathological presentation.

Niger J Med. 2015 Jan-Mar; 24(1):12-6

4. Systematic Evaluation of the Upper Airway in a Sample Population: Factors Associated with Obstructive Sleep Apnea Syndrome.

Soares Oliveira MC1, Tufik S2, Louise Martinho Haddad F3, Santos-Silva R2, Gregório LC4, Bittencourt L2.

Abstract

OBJECTIVES:

To investigate the anatomy of the upper airway (UA) of a representative sample of the adult population of São Paulo city, Brazil, and to identify factors associated with the presence of obstructive sleep apnea syndrome (OSAS), as confirmed using full-night polysomnography (PSG).

STUDY DESIGN:

Cross-sectional study.

SETTING:

Population-based sample.

METHODS:

A 3-stage sampling procedure was used to proportionally recruit adult residents of São Paulo city according to gender, age, and socioeconomic status. A complete evaluation was performed, including a systematic evaluation of the UA prior to conducting PSG.

RESULTS:

Nine-hundred ninety-three (90.2%) of the participants were seen by an ear, nose, and throat (ENT) specialist. Individuals who were diagnosed with OSAS (32.9%) presented a higher frequency of nasal symptoms and structural abnormalities (both nasal and oropharyngeal) compared with those without OSAS. No anatomical differences were observed in the facial skeleton. An abnormal nasal structure visible via anterior rhinoscopy was the only UA factor predicting OSAS after adjustments for the other common OSAS risk factors (male sex, aging, obesity, and increased neck circumference).

CONCLUSION:

This is the first study in which a systematic evaluation of the UA was followed by a sleep study in a population-based sample. In a sample of the general population that had not previously been screened for OSAS, having an abnormal nasal structure was found to be a risk factor for OSAS, in conjunction with other

well-established clinical and demographic factors, such as male gender, increased age, increased neck circumference, and body mass index.
Otolaryngol Head Neck Surg. 2015 Mar 27

5. Recurrent epistaxis in a nine-year-old boy: benign or malignant?

Dean HF1, Hadjisymeou S1, Morrison G1, Hore I1.

Abstract

OBJECTIVE:

We present the case of a rare cause of epistaxis in a paediatric patient, together with the diagnostic and management challenges associated with this condition.

CASE REPORT:

A previously well nine-year-old boy presented with a six-month history of intermittent unilateral epistaxis. Radiological investigation and endoscopic biopsy confirmed a highly malignant nasopharyngeal mass consistent with carcinoma. The tumour continued to grow rapidly. Whilst awaiting intervention, the patient experienced a further significant haemorrhage requiring surgical intervention.

CONCLUSION:

Nasopharyngeal carcinoma is a rare cause of epistaxis amongst children in the UK. Early flexible nasendoscopy can help delineate both benign and sinister causes of symptoms in this region.

J Laryngol Otol. 2015 Mar; 129(3): 293-5

6. Epistaxis in geriatric patients.

Yüksel A1, Kurtaran H, Kankiliç ES, Ark N, Uğur KS, Gündüz M.

Abstract

AIM:

Epistaxis is a common emergency in otolaryngology. The aim of this study is to analyze the etiology, management, and accompanying disorders of epistaxis in geriatric patients by reviewing the literature

MATERIALS AND METHODS:

Data of 117 patients 65 years old and older who presented to the Department of Otorhinolaryngology with active epistaxis between 2004 and 2010 were retrospectively reviewed. Records were evaluated for age, sex, accompanying disorders, drug medication, detailed otorhinolaryngological findings, and management of epistaxis.

RESULTS:

There were 67 women (57.26%) and 50 men (42.74%) with a mean age of 73.51 years (range: 65-90). Ninety-four (80.34%) patients had accompanying disorders such as hypertension, diabetes mellitus, cerebrovascular disease, sinusitis, chronic obstructive lung disease, nasal polyp, and drug treatment. The bleeding site was anterior in 90 patients (76.92%) and posterior in 16 (13.67%). In 11 patients (9.4%), the bleeding site was not identified. Fifty-seven patients (48.71%) were treated with cauterization, 17 patients (14.52%) with nasal packing, 12 patients (10.25%) with medical treatment, 1 patient (0.85%) with mass excision and nasal packing, and 19 patients (16.23%) with more than 1 treatment method. Six patients (5.12%) were untreated because of the unidentified bleeding point. Bleeding control was performed under local anesthesia in 113 patients (96.58%) and under general anesthesia in 4 patients (3.41%). Twenty-one patients (17.94%) were hospitalized and 3 patients (2.56%) required a blood transfusion.

CONCLUSION:

Epistaxis is the most common otorhinolaryngological emergency. It must be evaluated carefully to avoid the potential complications resulting from both epistaxis and its associated disorders, especially in geriatric patients.

Turk J Med Sci. 2014; 44(1):133-6

7. Clinically relevant outcome measures of novel pharmacotherapy for nonallergic rhinitis.

Brown KR1, Bernstein JA.

Abstract

PURPOSE OF REVIEW:

The purpose of this review is to briefly provide the current understanding of the pathogenesis of nonallergicrhinitis (NAR), currently available pharmacotherapies as well as some recent advancement in pharmacotherapy for this condition. With this background on NAR, we then describe and contrast outcome measures used in previous NAR and allergic rhinitis clinical trials. Finally, we conclude with a brief discussion on which of these outcomes might be most suitable for future NAR clinical trials.

RECENT FINDINGS:

NAR is a heterogeneous condition in which multiple mechanisms have been postulated to be involved. Patients with NAR commonly experience chronic nasal congestion and anterior and/or posterior drainage, which significantly affects their quality of life. Current standard of care is primarily symptom based, as specific therapies that target the underlying mechanisms of this condition are lacking. As there are no current treatment algorithms for NAR, clinical response and outcomes can vary widely between patients. Intranasal corticosteroids and intranasal antihistamines have been found to be effective in well designed clinical trials in the treatment of NAR and are therefore considered first-line therapies. Recently, studies investigating a combination of intranasal antihistamine/corticosteroid and an intranasal decongestant and with an intranasal corticosteroid have shown promise for allergic rhinitis and may also be more effective than monotherapy for NAR. Multiple outcome measures have been used in previous NAR trials, the most common being variations of nasal symptoms scores. Given the differences in prominent symptoms typically experienced by allergic rhinitis and NAR, accurate clinical outcomes used to evaluate new treatments for these two patient groups will likely differ. Further studies specifically designed to investigate the efficacy of various therapeutic agents in NAR are required to improve the management and outcomes of this chronic condition.

SUMMARY:

Further research is required to expand our understanding of the pathobiology of NAR that should lead to novel therapeutic approaches for managing this condition. It will be necessary to have well established validated NAR outcomes that can be used to study these novel therapies

CurrOpin Allergy ClinImmunol. 2015 Apr 16.

8. Impact of allergic rhinitis on quality of life after adenotonsillectomy for pediatric sleep-disordered breathing.

Kim DK1, Han DH.

Abstract

BACKGROUND:

Adenotonsillar hypertrophy is an undisputed major contributor to the development of pediatric sleep-disordered breathing (SDB). However, some children with SDB have experienced a worsening of quality of life (QOL) after adenotonsillectomy. The purpose of this study was to identify the factors of deteriorating QOL after adenotonsillectomy.

METHODS:

This was an observational cohort study at a single institute and consisted of 70 children with SDB who underwent adenotonsillectomy. The QOL was evaluated using the 18-item quality-of-life survey for obstructive sleep apnea (OSA-18) prior to surgery (S1), and at 1 month (S2), 6 months (S3), and 12 months (S4) postoperatively. Deterioration of QOL was defined as an increase in total scores of S3 and/or S4 by more than 25% of those on S2. Patients were categorized into rhinitis/nonrhinitis and atopy/non-atopy using the nasal symptom questionnaire and skin-prick test, respectively.

RESULTS:

The mean total scores of S2 and S4 were significantly lower than those of S1 ($p < 0.001$); however, some patients ($n = 27$, 38.6%) experienced an increase in scores. Patients with worsened QOL showed higher total immunoglobulin E (IgE) levels ($p = 0.034$) and complained of a rhinitis symptom more frequently ($p = 0.039$). Children with atopy were more likely to experience deterioration of QOL than those without ($p = 0.004$). In addition, multivariate logistic regression analysis showed that allergic rhinitis (AR) was a predictor for deterioration of QOL.

CONCLUSION:

This study suggests that AR may be a risk factor for deterioration of long-term QOL after adenotonsillectomy. Therefore, preoperative evaluation and proper management of AR might be considered in pediatric SDB

Int Forum Allergy Rhinol. 2015 Apr 21

9. Outcomes of complete vs targeted approaches to endoscopic sinus surgery.

DeConde AS[1], Suh JD, Mace JC, Alt JA, Smith TL.

Abstract

BACKGROUND:

Functional endoscopic sinus surgery (FESS) was historically predicated on targeted widening of narrow anatomic structures that caused post obstructive persistent sinus inflammation. It is now clear that chronic rhinosinusitis (CRS) is a multifactorial disease with subsets of patients which may require a more extensive surgical approach. This study compares quality-of-life (QOL) and disease severity outcomes after FESS based on the extent of surgical intervention.
METHODS:
Participants with CRS were prospectively enrolled into an ongoing, multi-institutional, observational, cohort study. Surgical extent was determined by physician discretion. Participants undergoing bilateral frontal sinusotomy, ethmoidectomy, maxillary antrostomy, and sphenoidotomy were considered to have undergone "complete" surgery, whereas all other participants were categorized as receiving "targeted" surgery. Improvement was evaluated between surgical subgroups with at least 6-month follow-up using the 22-item Sino-Nasal Outcome Test (SNOT-22) and the Brief Smell Inventory Test (B-SIT).

RESULTS:

A total of 311 participants met inclusion criteria with 147 subjects undergoing complete surgery and 164 targeted surgery. A higher prevalence of asthma, acetylsalicylic acid (ASA) sensitivity, nasal polyposis, and a history of prior sinus surgery ($p \leq 0.002$) was present in participants undergoing complete surgery. Mean improvement in SNOT-22 (28.1 ± 21.9 vs 21.9 ± 20.6; $p = 0.011$) and B-SIT (0.8 ± 3.1 vs 0.2 ± 2.4; $p = 0.005$) was greater in subjects undergoing complete surgery. Regression models demonstrated a 5.9 ± 2.5 greater relative mean improvement on SNOT-22 total scores with complete surgery over targeted approaches ($p = 0.016$).

CONCLUSION:

Complete surgery was an independent predictor of greater postoperative SNOT-22 score improvement, yet did not achieve clinical significance. Further study is needed to determine the optimal surgical extent
Int Forum Allergy Rhinol. 2015 Apr 23.

10. How I changed my practice in the last five years and what is likely to change in the next five years.

Fokkens WJ.

Abstract

The fast development of our field in the last decades has had significant impact on the way we practice our profession. This year my editorials will focus on the impact of these developments on my own daily practice. When I started in otorhinolaryngology functional endoscopic sinus surgery was the new kid on the Block. We learned to operate as functional as possible. The primary goal of FESS was to restore normal ventilation and remove irreversibly changed mucosa. The concept was that by restoring proper ventilation the sinus would heal itself. In the past decades, we have more and more discovered that CRS and especially CRS with nasal polyps is a mucosal disease that needs intensive medical treatment if necessary combined with ESS. The concept of FESS has moved from improving ventilation to opening up sinus for local medical treatment. Local medical treatment has been shown to be more effective when it is able to enter the sinus. Although we do not have all data available yet, rinsing with saline in which local corticosteroids have been dissolved seems to be more effective than using nasal drops and certainly more effective than nasal spray

Rhinology. 2015 Mar; 53(1):1-2