

## Abstract Selection

**Vestibular involvement in myringitis bullosa.** Eliashar, R., Gross, M., Saah, D., Elidan, J. Department of Otolaryngology/Head and Neck Surgery, Hadassah University Hospital, Jerusalem, Israel. ron@eliashar.com. *Acta Oto-laryngologica* (2004) Apr, Vol.124 (3), pp. 249–52, ISSN 0001-6489.

**OBJECTIVE:** Cochlear involvement manifested by sensorineural or mixed-type hearing loss (HL) has been reported to occur in 30–67% of patients suffering from myringitis bullosa (MB). The goal of this study was to investigate the incidence and nature of vestibular involvement in MB. **MATERIAL AND METHODS:** All adult patients presenting to Hadassah University Hospital with MB between 2000 and 2002 were evaluated for inner ear involvement. Audiometry, tympanometry and electronystagmography (ENG) were performed within the first 48 hours after presentation. The affected ears were examined on a regular basis and audiometric studies were repeated every other day. ENG was not repeated but a detailed questionnaire was administered and a thorough physical examination performed to rule out persistent vestibular dysfunction. **RESULTS:** Thirteen patients (17 ears) were diagnosed as suffering from MB. All 13 patients reported HL in the affected ears and 7 (54%) reported a sensation of vertigo at presentation. Audiometric tests revealed HL in all 17 affected ears: sensorineural HL in 2, mixed-type HL in 12 and conductive HL in 3. ENG was normal in only 2 cases, both of whom did not suffer from vertigo. Four patients with no vestibular symptoms whatsoever had an abnormal electronystagmogram. All seven patients who complained of vertigo had an abnormal electronystagmogram and recovered fully after treatment. All but two patients recovered their auditory function. **CONCLUSIONS:** Not only is the cochlear part of the inner ear affected in patients suffering from MB, but the vestibular part as well. Sensorineural HL and vestibular abnormalities should both be considered as manifestations of MB.

**Polysomnographic effects of nasal surgery for snoring and obstructive sleep apnea.** Kim, S. T., Choi, J. H., Jeon, H. G., Cha, H. E., Kim, D. Y., Chung, Y. S. Department of Otolaryngology-Head & Neck Surgery, Gil Medical Center, Gachon Medical School, Incheon, South Korea. *Acta Oto-laryngologica* (2004) Apr, Vol.124 (3), pp. 297–300, ISSN 0001-6489.

**OBJECTIVE:** It has been hypothesized that nasal obstruction causes an increase in negative pressure in the upper airway and induces an inspiratory collapse at the pharyngeal level. We used portable polysomnography (PSG) to assess the efficacy of nasal surgery for snoring and obstructive sleep apnea (OSA). **MATERIAL AND METHODS:** We reviewed 21 patients who presented with nasal obstruction and snoring. Septal surgery with or without inferior turbinectomy was performed. Each patient was assessed pre- and post-operatively using PSG. We measured the respiratory distress index (RDI), apnea index (AI), oxygen saturation index (OSI) and the duration of snoring. Selection criteria were an RDI of > 15 as determined by PSG and clinical nasal obstruction and a deviated nasal septum as determined by physical examination. **RESULTS:** Nasal surgery had the following effects: RDI decreased from 39 to 29 ( $p = 0.0001$ ), AI decreased from 19 to 16 ( $p = 0.0209$ ), OSI decreased from 48 to 32 ( $p = 0.0001$ ) and the duration of snoring decreased from 44% to 39% ( $p = 0.1595$ ). Snoring and OSA were completely relieved in 4 patients (19%) who did not require any additional surgical therapy. **CONCLUSION:** Snoring and OSA may be corrected merely by septal surgery in some patients, and secondary surgery (uvulopalatoplasty) may be considered after a thorough evaluation by means of post-operative PSG.

**Role of auditory stimulation in maturation of the auditory pathway.** Ray, J., Gibson, W. P. R., Sanli, H. Sydney Cochlear

Implant Centre, University of Sydney, Sydney, NSW, Australia. *Acta Oto-laryngologica* (2004) Aug, Vol.124 (6), pp. 695–9, ISSN 0001-6489.

**OBJECTIVE:** To compare the maturation of the auditory pathway, as shown by electrical brainstem auditory potentials (EABRs), in ears with and without prior auditory stimulation. **MATERIAL AND METHODS:** Electrophysiological data were collected prospectively from ears which had received cochlear implants. Implant-evoked (Imp)EABRs were recorded. Thirty children, implanted after January 2000, were selected according to a strict inclusion/exclusion protocol. All the children had received a 22-channel Nucleus Cochlear Implant (C124 series). Intraoperatively, ImpEABRs were recorded using the Medelec Synergy Evoked Response system in conjunction with Nucleus Neural Response Telemetry software. The ImpEABR latencies of waves eII, eIII and eV and the morphology of wave eV were assessed. **RESULTS:** ImpEABRs alter during the first 12 months of life. The latency becomes shorter during this period and the morphology of wave eV alters from a broad shape to a more distinct waveform. This appears to occur independently, even in the absence of auditory stimulation. **CONCLUSION:** The development of electrical brainstem auditory potentials is not dependent on auditory stimulation.

**Dynamic posture assessment in patients with peripheral vestibulopathy.** Rama, L. J., Perez, N., Martinez, V. E. Department of I Otorhinolaryngology, University Hospital and Medical School, University of Navarra, Pamplona, Spain.

*Acta Oto-laryngologica* (2004) Aug, Vol.124 (6), pp. 700–5, ISSN 0001-6489.

**OBJECTIVE:** To assess the effects on balance of different strategies to create sensory conflict. **MATERIAL AND METHODS:** Two different systems of dynamic posturography were compared: computerized dynamic posturography and a static platform on which different visual and support conditions were used. The study was performed in 127 patients with dizziness of a peripheral vestibular origin. **RESULTS:** When patients stood on a foam support surface, the length and area of the center-of-pressure excursions increased. Interestingly, optokinetic stimulation evoked a longer length and a wider area of the center-of-pressure excursions in patients with a combined vestibular and visual deficit pattern than when they kept their eyes closed. This was opposite to the effect observed in patients with a pattern indicative of a vestibular deficit alone. **CONCLUSION:** The effects of visual stimulation on balance in patients with unilateral vestibulopathy reflect the type of sensory deficit, and can be considered to be specific to such a deficit.

**Thyroplasty type I without arytenoid adduction in patients with unilateral laryngeal nerve paralysis: the Montgomery implant versus the Gore-Tex implant.** Nouwen, J., Hans, S., De-Mones, E., Brasnu, D., Crevier, B. L., Laccourreye, O. Department of Otorhinolaryngology-Head and Neck Surgery, Hôpital Européen Georges Pompidou, Assistance Publique des Hôpitaux de Paris, Université Paris V Paris, France. *Acta Oto-laryngologica* (2004) Aug, Vol.124 (6), pp. 732–8, ISSN 0001-6489.

**OBJECTIVE:** The current series was designed to compare the results achieved with the Montgomery and Gore-Tex implants in thyroplasty type I without arytenoid adduction in patients with unilateral laryngeal nerve paralysis. **MATERIAL AND METHODS:** An inception cohort of 57 French language speakers with unilateral laryngeal nerve paralysis were managed with thyroplasty type I using Gore-Tex (Group GT;  $n = 24$ ) or Montgomery (Group M;  $n = 33$ ) implants. The two groups had similar patient characteristics. Morbidity, phonatory results according to self assessment by the patient and selected speech and

voice parameters (fundamental frequency, jitter, shimmer, noise:harmonic ratio, phonation time, phrase grouping and speech rate) were analyzed 1 month postoperatively in both groups. RESULTS: Dyspnea, as noted in three patients, was the only immediate complication. Late complications included persistent inflammation of the vocal cord after insertion of a Gore-Tex implant, endolaryngeal extrusion of the Gore-Tex implant and dislodgment of the Montgomery implant in one patient each. Postoperatively, all patients reported improvements in speech and voice. Secondary degradation of speech and voice was noted in one patient in each group. Comparison of selected speech and voice parameters at 1 month postoperatively showed (i) a statistically significant ( $p < 0.01$ ) decrease in the jitter, shimmer and noise:harmonic ratio values and (ii) a statistically significant ( $p < 0.01$ ) increase in the speech rate values in Group M compared to Group GT patients. Also, a trend ( $0.05 < p < 0.1$ ) was noted towards an increase in the phrase grouping values in Group M compared to Group GT patients. CONCLUSIONS: Although limitations exist in the interpretation of the reported data, our results suggest that in patients with unilateral laryngeal nerve paralysis managed with a thyroplasty type I technique without arytenoid adduction, the use of a Montgomery compared to a Gore-Tex implant does not influence the success of the procedure according to the patient's self evaluation or the morbidity but does lead to a significant improvement in the values of selected speech and voice parameters.

**Subclassification of vestibular disorders by means of statistical analysis in caloric labyrinth testing.** Duewel, P., Ilgner, J., Engelke, J.-C., Westhofen, M. Department of Otorhinolaryngology & Plastic Surgery, University of Aachen, Aachen, Germany. pduewel@ukaachen.de. *Acta Oto-laryngologica* (2004) Jun, Vol.124 (5), pp. 595-602, ISSN 0001-6489.

OBJECTIVE: In the past, various attempts were made to perform a quantitative analysis of nystagmographic findings but their diagnostic value was limited. Therefore, the authors present a multivariate analysis of nystagmus findings with the aim of increasing the precision of diagnostic differentiation in cases of vestibular dysfunction. MATERIAL AND METHODS: A group of 387 patients and 40 healthy volunteers were examined over a 14-month period using electronystagmography after stimulation by bithermal, bilateral irrigation of the labyrinth. Amplitude, slow-phase velocity, frequency and directional preponderance were evaluated. RESULTS: No defined normal values for caloric nystagmus parameters could be obtained. However, by using the Mann Whitney U-test and logistic regression analysis a differentiation between pathological and healthy findings as well as between central and peripheral vestibular disorders and even between distinct vestibular disease entities is possible. Using these methods, the nystagmus amplitude was found to be the strongest discriminating parameter. Therefore, sole assessment of nystagmographic findings by selective calculation of the nystagmus slow-phase velocity falls short of the potential offered by electronystagmographic registration. CONCLUSION: For daily clinical routine, counting nystagmus beats leads to the same diagnostic precision as the analysis of slow-phase velocities. In contrast, multivariate analysis of several nystagmus parameters can distinguish between distinct diseases with fairly high precision. This stepwise analysis of nystagmographic data could create the basis for an expert-system tool in the near future.

**Acute otitis media caused by drug-resistant bacteria: correlation with antibiotic treatment.** Sakakura, K., Chikamatsu, K., Furukawa, M., Shibasaki, M., Takegoshi, T., Takahashi, K., Furuya, N. Department of Otolaryngology-Head and Neck Surgery, Gunma University Graduate School of Medicine, Japan. *Acta Oto-laryngologica* (2004) Nov, Vol.124 (9), pp.1008-14, ISSN 0001-6489.

OBJECTIVE: Although acute otitis media (AOM) is the commonest infectious disease of childhood, the emergence of drug-resistant bacteria has dramatically changed its clinical outcome. Here, we report the trend of AOM due to drug-resistant *Staphylococcus pneumoniae* (DRSP) and beta-lactamase-negative ampicillin-resistant *Haemophilus influenzae* (BLNAR), and the relation between antibiotics used for the management of AOM and the isolation of bacterial pathogens. MATERIAL AND METHODS: Bacterial isolation and susceptibility tests were performed on specimens from children with AOM. Clinical

information, including antibiotic treatment within the previous 30 days, was analyzed. RESULTS: DRSP was detected in 59.3% of *Pneumococci* isolates and BLNAR in 26.0% of *H. influenzae* isolates. As expected, the incidence of AOM caused by such drug-resistant bacteria has been increasing year on year, and 32% of cases have been treated with inappropriate antibiotics. In contrast, 32% of cases of AOM caused by DRSP and 50% caused by BLNAR were given antibiotics with high susceptibility to drug-resistant bacteria. CONCLUSION: In order to ensure the most appropriate use of antibiotics, clinicians should consider performing tympanocentesis or myringotomy, with subsequent submission of the middle ear fluid for susceptibility testing. Furthermore, these results suggest that, as well as the selection of antibiotics, the dosage and period of dosing should also be considered in the management of AOM. In addition, other factors, in particular horizontal transmission from other infants in day care or nursery school, may affect the rapid spread of such drug-resistant bacteria.

**Cochlear implantation in patients with a history of chronic otitis media.** Kim, C. S., Chang, S. O., Lee, H. J., Shim, W. S., Oh, S. H., Kim, Y. H. College of Medicine, Seoul National University, South Korea. chongkim@plaza.snu.ac.kr. *Acta Oto-laryngologica* (2004) Nov, Vol.124 (9), pp. 1033-8, ISSN 0001-6489.

OBJECTIVE: To propose management options for cochlear implantation in chronic otitis media based on our experiences. MATERIAL AND METHODS: A retrospective review of 418 cochlear implantations performed by the 2 senior authors between November 1988 and February 2004 was conducted. Nine patients who had chronic otitis media in the ear to be implanted were included. Of these, three showed active inflammation at presentation; the other six cases had undergone previous tympanomastoidectomy surgery and did not show active inflammation at presentation. RESULTS: Five patients with active inflammation or without an adequate soft tissue layer in the mastoid bowl underwent a two-stage procedure. Four cases who showed inactive inflammation and had an adequate tissue layer to protect the electrode array underwent a single-stage technique, although two of them showed dry tympanic membrane perforation. No local or intracranial inflammation recurred. The electrode was exposed in the mastoid bowl in one case, who was managed with revisional mastoid obliteration with soft tissue. CONCLUSION: Complete eradication of inflammation and the securing of a strong protective soft tissue layer over the electrode are prerequisites for cochlear implantation in ears with chronic otitis media.

**Sinus CT scans and mediator release in nasal secretions after nasal challenge with cypress pollens.** Piette, V., Bousquet, C., Kvedariene, V., Dhivert-D. H., Crampette, L., Senac, J. P., Bousquet, J., Demoly, P. Maladies Respiratoires, INSERMU454, IFR3, Hopital Arnaud de Villeneuve, CHU Montpellier, 34295 Montpellier Cedex 5, France. *Allergy* (2004) Aug, Vol.59 (8), pp. 863-8, ISSN 0105-4538. BACKGROUND: Involvement of paranasal sinuses has been suggested in allergic rhinitis but not clearly demonstrated. AIMS: To investigate the relationship between intermittent allergic rhinitis and computerized tomography (CT). METHODS: Twenty patients with intermittent rhinitis and sensitized to cypress pollens underwent unilateral nasal provocation tests (NPTs) using increasing concentrations of cypress pollens out of the pollen season. Sinus CT-scans were carried out just before a NPT and 24h later. Nasal lavage was carried out just before a NPT, 30 min after a positive challenge and again 24h later. Leucotriene C4/D4, intracellular adhesion molecule-1 and eosinophil cationic protein were measured in nasal secretions. RESULTS: Thirteen patients (65%) showed an alteration in their CT-scans after allergen challenge. Ten of them showed sinus changes contralateral to their allergenic provocation. Radiological changes mainly affected the osteomeatal complex and the ethmoid sinuses. Pre-existing abnormalities (13 of 20 cases) mainly concerned the maxillary sinuses. There was no correlation between CT-scan abnormalities and levels of mediators released in nasal secretions. CONCLUSIONS: We have shown that nasal allergen challenge can produce radiological changes in the paranasal sinuses. This mainly concerned the ethmoid sinuses.

**Montelukast plus cetirizine in the prophylactic treatment of seasonal allergic rhinitis: influence on clinical symptoms and nasal**

**allergic inflammation.** Kurowski, M., Kuna, P., Gorski, P. Division of Pneumology and Allergy, Department of Medicine, Medical University of Lodz, Lodz, Poland. *Allergy*, (2004) Mar, Vol.59 (3), pp. 280–8, ISSN 0105-4538.

**BACKGROUND:** The aim of our study was to investigate effects of 6-week pretreatment of seasonal allergic rhinitis (AR) with cetirizine, and montelukast, alone and in combination. Antihistamine/antileukotriene treatment is effective in AR. Antihistamines may prevent AR symptoms while prophylactic activity of antileukotrienes remains unclear. **METHODS:** Sixty AR patients, aged 18–35 years, were randomized to receive placebo, montelukast only, cetirizine only, or montelukast plus cetirizine, 6 weeks prior and 6 weeks after the beginning of grass pollen season. Mean self-recorded in-season symptom scores and mean weekly all-symptom scores were analyzed. In 31 patients, nasal lavages were performed before treatment, and at the end of the study, i.e. 12 weeks after the treatment initiation. Eosinophil and basophil counts, eosinophil cationic protein (ECP), and mast cell tryptase (MCT) levels were evaluated in lavage samples. **RESULTS:** Combined montelukast/cetirizine pretreatment significantly reduced in-season symptom score for sneezing, eye itching, nasal itching, rhinorrhea, and congestion. Montelukast plus cetirizine were more effective than cetirizine alone in preventing eye itching, rhinorrhea, and nasal itching. Moreover, combined pretreatment with montelukast and cetirizine delayed appearance of AR symptoms. Eosinophil nasal lavage fluid counts were significantly increased during pollen season in placebo and montelukast-only groups. No differences were observed in basophil counts. The in-season ECP level was significantly increased in all groups except montelukast-plus-cetirizine group. In-season MCT levels were not increased. **CONCLUSION:** Combined antihistamine and antileukotriene treatment started 6 weeks before the pollen season is effective in preventing AR symptoms and reduces allergic inflammation in nasal mucosa during natural allergen exposure.

**Chronic and recurrent otitis media: a genome scan for susceptibility loci.** Daly, K. A., Brown, W. M., Segade, F., Bowden, D. W., Keats, B. J., Lindgren, B. R., Levine, S. C., Rich, S. S. Department of Otolaryngology, School of Public Health, University of Minnesota School of Medicine, Minneapolis, MN, USA. *American Journal of Human Genetics* (2004) Dec, (epub: 22 Oct 2004), Vol.75 (6), pp. 988–97, ISSN 0002-9297.

Otitis media (OM) is the most common childhood disease. Almost all children experience at least one episode, but morbidity is greatest in children who experience chronic/recurrent OM (COME/ROM). There is mounting evidence that COME/ROM clusters in families and exhibits substantial heritability. Subjects who had tympanostomy tube surgery for COME/ROM (probands) and their families were recruited for the present study, and an ear examination was performed, without knowledge of the subject's history, to determine presence of OM sequelae. In addition, tympanometric testing was performed at three frequencies (226, 630 or 710, and 1,400 Hz) to detect abnormal middle-ear mechanics, and hearing was screened at 20 dB for the speech frequencies. Of these families, 121 had at least two individuals who had received the diagnosis of COME/ROM (364 affected and genotyped individuals), of whom 238 affected and informative relative pairs were used for analyses. Single-point nonparametric linkage analysis provided evidence of linkage of COME/ROM to chromosome 10q at marker D10S212 (LOD 3.78;  $p=3.0 \times 10^{-5}$ ) and to chromosome 19q at marker D19S254 (LOD 2.61;  $p=5.3 \times 10^{-4}$ ). Analyses conditional on support for linkage at chromosomes 10q and 19q resulted in a significant increase in LOD score support on chromosome 3p (between markers D3S4545 and D3S1259). These results suggest that risk of COME/ROM is determined by interactions between genes that reside in several candidate regions of the genome and are probably modulated by other environmental risk factors.

**Evaluation of Seldinger technique emergency cricothyroidotomy versus standard surgical cricothyroidotomy in 200 cadavers.** Schumann, N., Lorenz, V., Schellongowski, P., Staudinger, T., Locker, G. J., Burgmann, H., Pikula, B., Hofbauer, R., Schuster, E., Frass, M. Department of Internal Medicine I, Intensive Care Unit, Medical University of Vienna, Austria. *Anesthesiology* (2005) Jan, Vol.102 (1), pp. 7–11, ISSN 0003-3022.

**BACKGROUND:** Percutaneous cricothyroidotomy is a lifesaving

procedure for airway obstruction in trauma victims who need airway establishment and cannot be intubated or in whom intubation has failed. **METHODS:** The purpose of this study was to examine whether there is a training effect using Seldinger technique emergency cricothyroidotomy (group 1; Arndt Emergency Cricothyroidotomy Catheter Set; Cook Critical Care, Bloomington, IN) versus standard surgical cricothyroidotomy (group 2). Twenty emergency physicians performed five cricothyroidotomies with each method in a total of 200 human cadavers, comparing efficacy and safety (speed, success rate, and injuries). **RESULTS:** Seven attempts in group 1 and six in group 2 had to be aborted. Time intervals from the start of the procedure to location of the cricothyroid membrane were not significantly different between the groups. However, time to tracheal puncture ( $p < 0.01$ ) and time to first ventilation ( $p < 0.001$ ) were significantly longer in group 2. No time effect could be observed in both groups. The airway was accurately placed into the trachea through the cricothyroid membrane in 88.2% (82 of 93) of the cadavers in group 1 and in 84.0% (79 of 94) in group 2 (not significant). No injuries were observed in group 1, whereas there were six punctures of the thyroid vessels in group 2 ( $p < 0.05$ ). **CONCLUSIONS:** With respect to time needed for the procedure, the participants performed Seldinger technique emergency cricothyroidotomy significantly faster as compared with standard surgical cricothyroidotomy. Even if no training effect had been observed, the authors believe that it is important to train residents in different methods of cricothyroidotomy in cadavers in addition to training in mannequins to achieve a higher level of efficacy in real-life situations. The shorter time to first ventilation and the fact that no injuries could be observed favour the Seldinger technique.

**Subtotal reconstruction of the nasal septum using a conchal reshaped graft.** Bocchieri, A. Department of Maxillo-Facial Surgery, S. Camillo Hospital, Rome, Italy. armando.bocchieri@libero.it. *Annals of Plastic Surgery* (2004) Aug, Vol.53 (2), pp. 118–25, ISSN 0148-7043.

The caudalmost section of the cartilaginous nasal septum performs the important function of supporting the middle and lower third of the nose. Its absence leads inevitably to deformation of the nasal pyramid and collapse of the internal nasal valve. The most frequent causes of its loss are iatrogenic and traumatic, and the mucoperichondrial lining remains intact in most cases. A graft of conchal cartilage constitutes the preferred method of reconstruction due to the capacity of the transplanted tissue to acquire characteristics of shape, elasticity, and strength closely resembling those of the original tissue to be replaced. The auricular concha differs in anatomic shape from the nasal septum and tends, when deformed, to return to its initial appearance due to cartilaginous memory. The auricular cartilage is also less robust than the quadrangular. The paper describes a surgical technique for reshaping of the conchal cartilage that makes it possible to obtain a practically straight conchal graft that will retain its stability over time with no risk of subsequent modification. The technique involves a double figure-of-8 suture together with incisions on the concave side of the graft for straightening purposes. The simultaneous use of 2 spreader grafts taken from and attached to the concha itself helps to maintain straightness and reinforce the structure. The graft is then placed in position via open access and secured between the 2 mucoperichondrial flaps after these have been carefully detached. The tissue and technique used make it possible to restore the original condition in anatomic and physiological terms, eliminating the aesthetic impairment and regaining respiratory functionality.

**Adenotonsillectomy for upper respiratory infections: evidence based?** van-Staaij, B. K., van-den-Akker, E. H., van-der-Heijden, G. J. M. G., Schilder, A. G., Hoes, A. W. Julius Center for Health Sciences and Primary Care, location Stratenum 6.131, Universiteitsweg 100, 3584 CG Utrecht, Netherlands. B.K.vanStaaij@med.uu.nl. *Archives of Disease in Childhood* (2005) Jan, Vol.90 (1), pp. 19–25, 35 refs, ISSN 1468-2044.

**BACKGROUND:** Despite high rates of (adeno)tonsillectomy for upper respiratory infections in western countries, the medical literature offers the physician little support in deciding which child might benefit from the operation. **METHODS:** A literature search was performed to identify randomised trials and non-randomised controlled studies into the efficacy of tonsillectomy with or without adenoidectomy in children under 18 years. For the outcomes sore

throat episodes, sore throat associated school absence, and upper respiratory infections, pooled estimates of the incidence rate ratios and rate differences with 95% confidence intervals were calculated, assuming a Poisson distribution. **RESULTS:** Six randomised trials and seven non-randomised controlled studies on the efficacy of adenotonsillectomy in children were evaluated. For sore throat episodes data for 2483 person-years were available. The pooled risk difference was -1.2 episodes per person-year (95% CI -1.3 to -1.1). For sore throat associated school absence 1669 person-years were analysed. The pooled risk difference was -2.8 days per person-year (95% CI -3.9 to -1.6). For upper respiratory infections 1596 person-years were available. The pooled risk difference was -0.5 episodes per person-year (95% CI -0.7 to -0.3). **CONCLUSIONS:** All available randomised trials and non-randomised controlled studies into the efficacy of (adeno)tonsillectomy had important limitations. The frequency of sore throat episodes and upper respiratory infections reduces with time whether (adeno)tonsillectomy has been performed or not. (Adeno)tonsillectomy gives an additional, but small, reduction of sore throat episodes, days of sore throat associated school absence, and upper respiratory infections compared to watchful waiting.

**Prevalence of migraine in patients with a history of self-reported or physician-diagnosed sinus headache.** Schreiber, C. P., Hutchinson, S., Webster, C. J., Ames, M., Richardson, M. S., Powers, C. Headache Care Center, Springfield, MO, USA. *Archives of Internal Medicine* (2004) Sep, Vol.164 (16), pp. 1769-72, ISSN 0003-9926.

**BACKGROUND:** Symptoms referable to the sinus area are frequently reported during migraine attacks, but are not recognized in diagnostic criteria. Under-recognition of migraine may be partly attributed to a variable clinical presentation, and migraines with sinus symptoms contribute to this problem. This study was conducted to determine the prevalence of migraine-type headache (International Headache Society (IHS)-defined migraine without aura (IHS 1.1), migraine with aura (IHS 1.2), or migrainous disorder (IHS 1.7)) in patients with a history of self-described or physician-diagnosed sinus headache. **METHODS:** During a clinic visit, patients with a history of sinus headache, no previous diagnosis of migraine, and no evidence of infection were assigned an IHS headache diagnosis on the basis of headache histories and reported symptoms. **RESULTS:** A total of 2991 patients were screened. The majority (88%) of these patients with a history of self-described or physician-diagnosed sinus headache were diagnosed at the screening visit as fulfilling IHS migraine criteria (80% of patients) or migrainous criteria (8% of patients). The most common symptoms referable to the sinus area reported by patients at screening were sinus pressure (84%), sinus pain (82%), and nasal congestion (63%). **CONCLUSIONS:** In this study, 88% of patients with a history of sinus headache were determined to have migraine-type headache. In patients with recurrent headaches without fever or purulent discharge, the presence of sinus-area symptoms may be part of the migraine process. Migraine should be included in the differential diagnosis of these patients.

**FDG-PET prediction of head and neck squamous cell cancer outcomes.** Schwartz, D. L., Rajendran, J., Yueh, B., Coltrera, M. D., Leblanc, M., Eary, J., Krohn, K. Radiation Oncology Service, Veterans Affairs Puget Sound Health Care System, University of Washington, Seattle, USA. docdls@mdanderson.org. *Archives of Otolaryngology-Head & Neck Surgery* (2004) Dec, Vol.130 (12), pp. 1361-7, ISSN 0886-4470.

**OBJECTIVE:** To confirm that high pretreatment uptake of 2-deoxy-2-[<sup>18</sup>F]fluoro-d-glucose (FDG) detected by positron emission tomography (PET) measured at the primary head and neck squamous cell carcinoma (HNSCC) and at metastatic nodal disease predicts poor outcomes for HNSCC. **DESIGN AND PATIENTS:** We enrolled 63 consecutive patients with a histological diagnosis of HNSCC (including tumours of the oral cavity, oropharynx, larynx, and hypopharynx) from September 2000 through June 2003, into a prospective institutional imaging trial. Fifty-four patients (86%) underwent a baseline FDG-PET scan before curative treatment and were eligible for analysis. **RESULTS:** A primary tumour standardized uptake value (SUV) of greater than 9.0 predicted inferior local recurrence-free survival ( $p = .02$ ) and disease-free survival ( $p = .03$ ). Nodal SUV dichotomized according to the cohort median of 6.1 did not predict for either disease outcome ( $p = .71$  and  $p = .98$ , respectively). On

proportional hazards analysis, local recurrence and disease event hazard ratios for a primary tumour SUV of 9.0 or greater remained significant or at borderline significance when adjusted for nodal SUV or other clinical covariates. **CONCLUSIONS:** Our findings support an association between baseline primary tumour FDG SUV and HNSCC outcomes. In contrast, nodal FDG SUV was not predictive. Primary tumour FDG SUV is a promising prognostic factor and may establish the need for intensified locoregional therapy in individual patients. Multi-institutional imaging trials and further characterization of the biology responsible for elevated FDG uptake in HNSCC will be necessary to confirm the prognostic utility of FDG-labelled PET.

**Human error identification: an analysis of myringotomy and ventilation tube insertion.** Montague, M.-L., Lee, M. S. W., Hussain, S. S. M. Department of Otolaryngology, Ninewells Hospital and Medical School, Dundee, Scotland, UK. *Archives of Otolaryngology-Head & Neck Surgery* (2004) Oct, Vol.130 (10), pp. 1153-7, ISSN 0886-4470.

**OBJECTIVES:** To use a human reliability assessment tool to identify commonly occurring errors during myringotomy and ventilation tube (VT) insertion and to quantify the likelihood of error occurrence. **METHODS:** Error-free task analysis for myringotomy and VT insertion was defined at the outset. Fifty-five consecutive myringotomy and VT insertion procedures were videotaped. The operator was either the senior author (S.S.M.H.) or a trainee in the specialist registrar or senior house officer grade. Three assessors (M.-L.M., M.S.W.L., and S.S.M.H.) blinded to operator identity independently evaluated each procedure. Interobserver agreement was calculated (kappa values). **RESULTS:** Twelve potential error types were identified. A total of 87 errors were observed in 55 procedures. In 53% of procedures ( $n = 29$ ) multiple errors were identified. Seven percent of procedures ( $n = 4$ ), were error free. The 4 most frequent errors identified were (1) failure to perform a unidirectional myringotomy incision ( $n = 37$ ; 43%); (2) multiple attempts to place VT ( $n = 14$ ; 16%); (3) multiple attempts to complete the myringotomy ( $n = 11$ ; 13%); and (4) magnification setting too high ( $n = 11$ ; 13%). The human error probability was 0.13. Interobserver agreement as expressed by kappa statistics was high. **CONCLUSIONS:** Human error identification in this most common of otologic procedures is crucial to future error avoidance. Eliminating the two most common errors in this model will halve the human error probability. Extending the role of error analysis to error-based teaching as an educational tool has potential.

**Ambulatory powered intracapsular tonsillectomy and adenoidectomy in children younger than 3 years.** Bent, J. P., April, M. M., Ward, R. F., Sorin, A., Reilly, B., Weiss, G. New York Otolaryngology Institute, 186 East 76th Street, New York, NY 10021, USA. bent@I-2000.com. *Archives of Otolaryngology-Head & Neck Surgery* (2004) Oct, Vol.130 (10), pp. 1197-200, ISSN 0886-4470.

**OBJECTIVES:** (1) To assess the safety and efficacy of outpatient intracapsular tonsillectomy, which has been recently described as a less invasive means of treating obstructive tonsillar hypertrophy, in children younger than 3 years; and (2) to challenge the standard dictum that children younger than 3 years should be admitted to the hospital after tonsil and adenoid surgery. **DESIGN:** Retrospective cohort study via medical chart review and telephone interview. **SETTING:** Pediatric otolaryngology group practice with academic affiliation. **PATIENTS:** Children with symptomatic tonsillar and adenoid hypertrophy ( $n = 226$ ) who underwent microdebrider-assisted intracapsular tonsillectomy between September 1, 2000, and October 1, 2002. **METHODS:** Comparison of study group (children <3 years old,  $n = 38$ ; mean age, 30.3 months; 20 boys and 18 girls) with control group (children > or =3 years,  $n = 188$ ), measuring pain, oral intake, analgesic requirements, complications, need for readmission, and relief of symptoms. **RESULTS:** There were no statistically significant differences in pain, oral intake, or analgesic requirements. All children, regardless of age, were discharged home within 4 hours of surgery. No child in either group required readmission, and there were no complications related to the time of discharge. Younger children experience equivalent symptomatic improvement. **CONCLUSION:** Children younger than 3 years may undergo intracapsular tonsillectomy as outpatients without sacrificing safety or efficacy.