

Abstract Selection

Repeated vs single physical maneuver in benign paroxysmal positional vertigo. Gordon, C.R., Gadoth, N. Department of Neurology, Meir General Hospital, Kfar Saba and Sackler Faculty of Medicine, Tel Aviv University, Tel Aviv, Israel. *Acta Neurologica Scandinavica* (2004) Sep, Vol. 110 (3), pp. 166–9

OBJECTIVES: To evaluate the effectiveness and possible side effects of a single session of repeated particle repositioning maneuver (PRM) to treat posterior canal benign paroxysmal positional vertigo (BPPV) and the usefulness of post-treatment restrictions. **MATERIALS AND METHODS:** A total of 125 consecutive patients with idiopathic BPPV participated in the study. Fifty patients received a single session of repeated PRM only (group I). Results were compared with those of 50 patients with BPPV who received a single PRM (group IIb), and 25 patients who received a single PRM followed by the use of a neck collar and keeping the head upright for 48 h (group IIa). **RESULTS:** Forty-six patients (92%) of group I, 40 patients (80%) of group IIb, and 21 patients (84%) of group IIa were completely free of signs and symptoms when re-examined 1 week after treatment. Transient nausea and disequilibrium following treatment were reported equally in all subgroups and well tolerated. Nearly all patients of group IIa considered the post-treatment restrictions very inconvenient. **CONCLUSIONS:** A single session of repeated physical procedure seems to be clinically superior to one single maneuver and well tolerated. Additional post-treatment measurements are inconvenient and should be abandoned.

Lysozyme levels in the nasal secretions of patients with perennial allergic rhinitis and recurrent sinusitis. Kalfa-V-Cuneyt, Spector-Sheldon, L., Ganz-T., Cole-Alexander, M. Division of Pediatric Immunology, Allergy, Rheumatology, Department of Pediatrics, University of California at Los Angeles, Los Angeles, California. *Annals of Allergy, Asthma & Immunology* (2004) Sep, Vol. 93 (3), pp. 288–92

BACKGROUND: The association of perennial allergic rhinitis (PAR) with recurrent sinusitis (RS) is well recognized. Anatomic abnormalities at the osteomeatal complex or ciliary dysfunction may play a significant role in some patients. However, for most patients with allergy, the determinants of RS are unknown. **OBJECTIVE:** To determine whether altered concentrations of antimicrobial peptides and proteins, such as lysozyme, lactoferrin, human beta-defensin-2 (HBD-2), and human neutrophil peptides 1 to 3 (HNP-1 to 3), contribute to the development of RS in patients with PAR. **METHODS:** Nasal secretions were collected by vacuum aspiration from 15 individuals with PAR+RS, 16 with PAR alone, and 16 controls. Lysozyme and lactoferrin levels were determined in nasal secretions by using quantitative enzyme-linked immunosorbent assay, and HBD-2 and HNP-1 to 3 levels were determined in nasal secretions by using semiquantitative Western blot analysis. Eosinophil-derived neurotoxin (EDN) levels were measured by using enzyme-linked immunosorbent assay as a marker of nasal eosinophilia in all 3 groups. **RESULTS:** Levels of EDN were elevated significantly in patients with PAR+RS compared with controls. Lysozyme levels were decreased significantly in patients with PAR+RS compared with PAR alone or controls. Mean lysozyme levels were significantly lower in patients with EDN levels greater than 1,000 ng/mL vs those with levels of 1,000 ng/mL or less in the PAR+RS group. There were no statistically significant differences in lactoferrin, HBD-2, and HNP-1 to 3 levels among the 3 groups. **CONCLUSIONS:** The presence of eosinophils and their products and reduced lysozyme concentrations may be critical factors that predispose the airways of patients with PAR to RS.

Pretreatment probability model for predicting outcome after intraarterial chemoradiation for advanced head and neck carcinoma. Van den Broek, G.B., Rasch, C.R.N., Pameijer, F.A., Peter, E., Van den Brekel, M.W.M., Tan L.B., Schornagel, J.H., de Bois, Josien, A., Zijp, L.J., Balm, A.J.M. Department of Head and Neck Oncology and Surgery, The Netherlands Cancer Institute-Antoni Van Leeuwenhoek Hospital, Amsterdam, The Netherlands. *Cancer* (2004) Oct 15, Vol. 101 (8), pp. 1809–17

BACKGROUND: Concurrent chemoradiation is being used increasingly to treat patients with advanced-stage head and neck carcinoma. In the current study, a clinical nomogram was developed to predict local control and overall survival rates for individual patients who will undergo chemoradiation. **METHODS:** Ninety-two consecutive patients with UICC TNM Stage III/IV squamous cell carcinoma of the oral cavity, oropharynx, hypopharynx, and supraglottic larynx were treated with selective-targeted chemoradiation (acronym: RADPLAT). All living patients had a minimum follow-up of 2 years. In addition to general factors, the following parameters were analyzed in a multivariable analysis: primary tumor volume, lymph node tumor volume, total tumor volume, lowest involved neck level, comorbidity, pretreatment hemoglobin level, pretreatment weight loss, and unilateral/bilateral intraarterial infusion. Relevant factors for local control and survival were analyzed using the Cox proportional hazards model. **RESULTS:** At 5 years, the local control and overall survival rates for the whole group were 60% and 38%, respectively. Primary tumor volume (hazard ratio (HR), 1.03; P = 0.01) and unilateral infusion (HR, 5.05; P = 0.004) were found to influence local control significantly. Using tumor volume as a continuous variable, an adjusted risk ratio of 1.026 was found, indicating that each 1-cm(3) increase in volume was associated with a 2.6% decrease in probability of local control. Primary tumor volume (HR, 1.01; P = 0.003), comorbidity American Society of Anesthesiologists (ASA) physical status 1 vs. > 1; MR, 2.47; P = 0.01), lowest involved neck level (HR, 3.45; P = 0.007), and pretreatment weight loss > 10% (HR, 2.04; P = 0.02) were found to be significant predictors of worse overall survival. Variables from the multivariable analysis were used to develop a nomogram capable of predicting local control and overall survival. **CONCLUSIONS:** Tumor volume was found to play a significant role in predicting local control and overall survival in patients with advanced-stage head and neck carcinoma who were treated with targeted chemoradiation. The nomograms may be useful for pretreatment selection of patients with advanced-stage head and neck carcinoma.

Infant hearing screening: route to informed choice. Olusanya, B.O., Luxon, L.M., Wirz, S.L. Academic Unit of Audiological Medicine, Institute of Child Health, University College London, 30 Guilford Street, London WC1N 1EH, UK. *Archives of Disease in Childhood* (2004) Nov, Vol. 89 (11), pp. 1039–40

The decision to participate in infant screening often rests with parents. Medical ethics require that parental decision is elicited from informed choice. Such a decision is influenced by the parental knowledge and attitude towards screening and a careful evaluation of these factors is essential in seeking informed consent for infant hearing screening.

Molecular introduction to head and neck cancer (HNSCC) carcinogenesis. Chin, D., Boyle, G.M., Theile, D.R., Parsons, P.G., Coman, W.B. Queensland Institute of Medical Research, Melanoma Genomics Group, Dept of Plastic Surgery and Head and Neck Unit, University of Queensland, Princess Alexandra Hospital, Brisbane, Queensland, Australia. *British journal of plastic surgery* (2004) Oct, Vol. 57 (7), pp. 595–602

Of all human cancers, HNSCC is the most distressing affecting

pain, disfigurement, speech and the basic survival functions of breathing and swallowing. Mortality rates have not significantly changed in the last 40 years despite advances in radiotherapy and surgical treatment. Molecular markers are currently being identified that can determine prognosis preoperatively by routine tumour biopsy leading to improved management of HNSCC patients. The approach could help decide which early stage patient should have adjuvant neck dissection and radiotherapy, and whether later stage patients with operable lesions would benefit from resection and reconstructive surgery or adopt a conservative approach to patients with poor prognosis regardless of treatment. In the future, understanding these basic genetic changes in HNSCC would be important for the management of HNSCC.

Surgical education: neck dissection. Chummun, S., McLean, N.R., Ragbir, M., Department of Orthopaedics and Trauma, North Tyneside General Hospital, Rake Lane, North Shields, Newcastle Upon Tyne NE29 8HN, UK. *British Journal of Plastic Surgery* (2004) Oct, Vol. 57 (7), pp. 610–23

Neck dissection is a valuable procedure for treating metastatic cancers of the head and neck. Radical neck dissection remains the standard for cervical metastasis. Because of the morbidity associated with such a treatment, more conservative approaches are being adopted. The authors describe how they do a neck dissection and review the issues that currently surround the choice of treatment.

Laryngeal electromyography: contribution to vocal fold immobility diagnosis. Kimaid, P.A.T., Crespo, A.N., Quagliato, E.M.A.B., Wolf, A., Viana, M.A., Resende, L.A.L. *Electromyography and Clinical Neurophysiology* (2004) Sep, Vol. 44 (6), pp. 371–4

Laryngeal Electromyography (LEMG) is a diagnostic test commonly used in patients with vocal fold movement disorder. The aim of this study is to describe LEMG in patients with vocal fold immobility. A total of 55 dysphonic patients with vocal fold immobility diagnosed by laryngeal endoscopy were grouped according to probable clinical cause: 1) unknown; 2) traumatic; or 3) tumoral compression. They were submitted to LEMG by percutaneous insertion of concentric needle electrode. LEMG was conclusive in all patients and showed a majority with peripheral nerve injury. LEMG diagnosed peripheral nerve damage in 25 group 1, 12 group 2, and 11 group 3 patients. LEMG was normal in 4 patients, suggesting cricoarytenoid joint fixation. Central nervous system disorders was suggested in 2 and myopathic pattern in 1. As the major cause of vocal fold immobility is peripheral nerve damage, LEMG is an important test to confirm diagnosis.

Transoral carbon dioxide laser microsurgery for recurrent glottic carcinoma after radiotherapy. Steiner, W., Vogt, P., Ambrosch, P., Kron, M. Department of Otorhinolaryngology, Universitaets-HNO-Klinik, Robert-Koch-Str. 40, D-37075 Goettingen, Germany. *Head & Neck* (2004) Jun, Vol. 26 (6), pp. 477–84

BACKGROUND: Transoral laser microsurgery is successfully performed in the treatment of primary laryngeal carcinomas. Few publications deal with the application in patients with recurrent glottic carcinomas after radiation failure. Our study aims to review our experience with transoral laser microsurgery in these patients. **METHODS:** Thirty-four patients with early and advanced recurrent glottic carcinoma after full-course radiotherapy (rT1, n = 11; rT2, n = 10; rT3, n = 10; rT4, n = 3) had C0(2) laser treatment with curative intent between 1987 and 1998. **RESULTS:** Twenty-four patients (71%) were cured with one or more laser procedures. In nine patients, recurrences could not be controlled by laser microsurgery: six patients underwent total laryngectomy and three palliative treatment. One patient received total laryngectomy because of chondronecrosis after laser treatment. With a median follow-up interval of 38.6 months, the 3-year and 5-year disease-specific survival was 86%. The overall 3-year survival rate was 74%; the corresponding 5-year survival rate was 53%. No major complications occurred. In three cases, temporary tracheostomy was needed. **CONCLUSIONS:** In early-stage and advanced-stage recurrent glottic carcinomas after radiotherapy, C0(2) laser treatment can successfully be used as a curative organ-preserving procedure. Compared with salvage laryngectomy, results are superior with respect to preservation of laryngeal function. Great expertise is required, especially in resections of advanced-stage recurrent carcinomas.

Telomerase as an independent prognostic factor in head and neck squamous cell carcinoma. Liao, Chun-Ta, Tung, Chieh-Chang-Joseph, Wang-Hung-Ming, Chen-I-How, Lin-Chien-Yu, Chen-Tsung-Ming, Hsieh-Ling-Ling, Cheng-Ann-Joy. Department of Otorhinolaryngology, Head and Neck Surgery, Chang Gung Memorial Hospital, Taoyuan, Taiwan. *Head & Neck* (2004) Jun, Vol. 26 (6), pp. 504–12

BACKGROUND: Telomerase activity has been found to be associated with many cancers, including head and neck squamous cell carcinoma (HNSCC). We examined the association of telomerase activity with the clinical outcome of patients with HNSCC. **METHODS:** A PCR-based enzyme immunoassay method was used to measure telomerase activity in 217 matched (grossly normal and cancerous) tissues from patients with HNSCC. Pearson chi-square test was used to analyze the correlation of telomerase activity with clinicopathologic parameters. Kaplan-Meier method and Cox logistic regression model were used for prognostic analysis. **RESULTS:** Of the 217 tissues assayed, 4.1% of the normal and 63.3% of the cancer tissues had high levels of telomerase activity. Telomerase activity was shown to be statistically correlated with extracapsule spreading (ECS) of lymph nodes ($p = .005$) and overall survival ($p = .003$). On multivariate analysis, overall stage ($p = .007$), tumor depth ($p = .045$), and telomerase activity ($p = .008$) showed independent variables associated with poor survival. **CONCLUSIONS:** Telomerase activity has been shown to be an independent prognostic factor for survival in cases of HNSCC. Telomerase may be a potential molecular target for clinical use in prognostication and therapy in cases of the disease.

A physiological correlate for the intolerance to both internal and external sounds. Hebert, S., Paiement, P., Lupien, S.J. Universite de Montreal and Centre de recherche, Institut universitaire de geriatric de Montreal, Montreal, QC, Canada. *Hearing Research* (2004) Apr, Vol. 190 (1–2), pp. 1–9

The notion that stress can induce chronic tinnitus, or increase its intensity, is predominant in the literature on tinnitus. However, there is little empirical support for this claim, since previous studies rely merely on subjective reports. In the present study, we used an objective physiological measure of stress (i.e., basal secretion of the stress hormone cortisol), in order to assess the relationship between tinnitus and stress. We hypothesized that tinnitus, a permanent internal sound, should behave as a stressor and should be accompanied by chronically elevated cortisol levels in individuals with severe tinnitus. In addition, we hypothesized that suffering from severe tinnitus should generalize to an intolerance towards external sounds. Two groups each comprised of 18 participants (with and without tinnitus) matched on education and health status participated in the study. Tinnitus severity, as assessed by tinnitus-related distress, was high in half of the tinnitus participants, and low in the other half. Basal cortisol levels were measured using saliva samples (five saliva samples per day for 3 days within a week) taken in the participant's natural environment. Intolerance to external sounds was assessed psychometrically. The high tinnitus-related distress group had chronic cortisol levels greater than both the low tinnitus-related distress and control groups, and also displayed greater intolerance to external sounds. The low tinnitus-related distress and control groups did not differ from each other on either of these measures. Our study thus provides the first physiological and empirical evidence of a link between intolerance to both internal (tinnitus) and external sounds in persons with tinnitus, and is compatible with the clinical observation that severe tinnitus is associated with high stress levels.

Increased antiseptory factor reduces vertigo in patients with Meniere's disease: a pilot study. Hanner, P., Jennische, E., Lange, S., Loennroth, L., Wahlstroem, B. Department of Audiology, Sahlgrenska University Hospital, Goeteborg University, S-41345 Goeteborg, Sweden, *Hearing Research* (2004) Apr, Vol. 190 (1–2), pp. 31–6

It has been hypothesized that the symptoms of vertigo in patients with Meniere's disease somehow are related to impaired production and/or transport of endolymph. Antiseptory factor (AF) is a protein known to affect transport processes in the intestine and it has been shown that intake of specially processed cereals (SPC) can increase endogenous AF synthesis. In a prospective open pilot study, 24 patients with severe Meniere's

disease (functional level scale 5–6 according to the criteria of AAO-HNS) received SPC for 14–30 days. AF levels in plasma increased by 83% in 20 of the 24 patients studied. The attacks of rotatory vertigo were reduced, to final AAO-HNS functional level scale 1–3, in 12 patients and in three of these hearing was normalized. Twelve patients had no or minor effects of the treatment. The correlation between AF activity after treatment and the final AAO-HNS functional level scale was -0.65 , $P < 0.001$. Studies in rats using immunohistochemistry methods showed that AF was localized to the cochlea and the vestibule of the inner ear. The present results suggest that AF might be a new regulator of the endolymph.

Vestibular-evoked myogenic potentials in three patients with large vestibular aqueduct. Sheykhleslami, K., Schmerber, S., Habiby, K., Mohammad, K.K. Department of Otolaryngology, Faculty of Medicine, University of Tokyo, 7–3–1, Hongo, Bunkyo-Ku, Tokyo 113–0033, Japan. *Hearing Research* (2004) Apr, Vol. 190 (1–2), pp. 161–8

An enlarged vestibular aqueduct (LVA) is a common congenital inner ear anomaly responsible for some unusual vestibular and audiological symptoms. Most of the cases show bilateral early onset and progressive hearing loss in children. The gross appearance on CT scan of the inner ear is generally normal. However, precise measurements of the inner ear components reveal abnormal dimensions, which may account for the accompanying auditory and vestibular dysfunction. Despite extensive studies on hearing and the vestibular apparatus, saccular function is not studied. To our knowledge this is the first report of saccular malfunction in three patients with LVA by means of vestibular evoked myogenic potentials. Conventional audiograms revealed bilateral severe sensorineural hearing loss in two patients and mixed type hearing loss in one patient. Two of the patients complained about vertigo and dizziness but vestibular assessments of the patients showed normal results. The diagnosis had been made by high-resolution CT scans and MR images of the skull that showed LVA in the absence of other anomalies. The VEMP threshold measured from the ear with LVA in two patients with unilateral enlargement of the vestibular aqueduct was 75–80 dB nHL whereas the threshold from normal ears was 95 dB nHL. The third patient with mixed type hearing loss and bilateral LVA had VEMP responses despite a big air-bone gap in the low frequency range. The VEMP in this patient was greater in amplitude and lower in threshold in the operated ear (the patient had a tympanoplasty which did not improve her hearing). These findings and results of other patients with Tullio phenomenon and superior semicircular canal dehiscence, who also showed lower VEMP threshold, confirmed the theory of a ‘third window’ that allows volume and pressure displacements, and thus larger deflection of the vestibular sensors, which would cause the vestibular organ to be more responsive to sound and pressure changes.

Long-term incidence of hypothyroidism after radiotherapy in patients with head-and-neck cancer. Tell, R., Lundell, G., Nilsson, B., Sjoedin, H., Lewin, F., Lewensohn, R. Department of Oncology, Radiumhemmet, Karolinska University Hospital, Stockholm, Sweden. *International Journal of Radiation Oncology, Biology, Physics* (2004) Oct 1, Vol. 60 (2), pp. 395–400

PURPOSE: To determine the long-term incidence of postirradiation hypothyroidism (HT) in patients with head-and-neck cancer. **METHODS AND MATERIALS:** The incidence of overt HT was assessed prospectively in 391 patients with nonthyroid head-and-neck cancer admitted for radiotherapy (RT) consecutively between 1990 and 1996. Eighty-three patients were excluded from the analysis because of known thyroid disease before treatment ($n = 27$), no RT was given ($n = 15$), or inadequate follow-up ($n = 41$). Overt HT was defined as increased thyroid-stimulating hormone (TSH) in combination with decreased $ft4/T4$ or in combination with initiation of thyroxine replacement therapy. **RESULTS:** With a median follow-up of 4.2 years (range, 3 months to 10.9 years) for 308 evaluable patients, the 5- and 10-year Kaplan-Meier actuarial risks of HT were 20% and 27%, respectively. The median time until development of HT was 1.8 years (3 months to 8.1 years). Multivariate analysis showed that patients with bilateral RT to the neck had a higher risk of HT in comparison with unilateral neck RT (relative hazard, 0.37; $p = 0.02$). The addition of surgery to RT increased the overall risk

of HT ($p < 0.001$); and if surgery involved the thyroid gland, the relative hazard was 4.74 ($p < 0.001$). For an elevated pre-RT TSH value, the relative hazard was 1.58 ($p < 0.001$). **CONCLUSION:** The incidence of overt HT after locoregional RT for nonthyroid head-and-neck cancer continues to increase with time, even after long-term follow-up. We recommend life-long TSH testing in these patients.

Benign paroxysmal positional vertigo predominantly affects the right labyrinth. Von Brevern, M., Seelig, T., Neuhauser, H., Lempert, T. Neurologische Klinik, Charite, Berlin, Germany. *Journal of Neurology, Neurosurgery, and Psychiatry* (2004) Oct, Vol. 75 (10), pp. 1487–8.

Benign paroxysmal positional vertigo (BPPV) occurs when there are freely moving particles in a semicircular canal and the head is turned in the plane of the affected canal. The aim of the present study was to clarify whether BPPV manifests equally in both labyrinths or whether there is a preponderance for one side. We conducted a PubMed literature search of BPPV case series which specified the affected side and a retrospective chart review of 80 consecutive patients with BPPV of the posterior canal who had presented at our dizziness clinic. Eighteen studies with a total of 3426 patients were identified. In our own series the right side was affected in 54 of 80 patients (right/left ratio 2.08). Altogether, in 3506 patients the right labyrinth was involved 1.41 times more often than the left (95% CI 1.37 to 1.45). We think that the reason for the predominant involvement of the right ear in BPPV is the habit, of most patients, of sleeping on the right side.

Variations on the standard transsphenoidal approach to the sellar region, with emphasis on the extended approaches and parasellar approaches: surgical experience in 105 cases. Coldwell, W.T., Weiss, M.H., Rabb, C., Liu, J.K., Apfelbaum, R.I., Fukushima, T. Department of Neurological Surgery, University of Utah, Salt Lake City, Utah, USA. *Neurosurgery* (2004) Sep, Vol. 55 (3), pp. 539–47

OBJECTIVE: The traditional boundaries of the transsphenoidal approach may be expanded to include the region from the cribriform plate of the anterior cranial base to the inferior clivus in the anteroposterior plane, and laterally to expose the cavernous cranial nerves and the optic canal. We review our combined experience with these variations on the transsphenoidal approach to various lesions of the sellar and parasellar region. **METHODS:** From 1982 to 2003, we used the extended and parasellar transsphenoidal approaches in 105 patients presenting with a variety of lesions of the parasellar region. This study specifically reviews the breadth of pathological lesions operated and the complications associated with the approaches. **RESULTS:** Variations of the standard transsphenoidal approach have been used in the following series: 30 cases of pituitary adenomas extending laterally to involve the cavernous sinus, 27 craniopharyngiomas, 11 tuberculum/diaphragma sellae meningiomas, 10 sphenoid sinus mucoceles, 18 clivus chordomas, 4 cases of carcinoma of the sphenoid sinus, 2 cases of breast carcinoma metastatic to the sella, and 3 cases of monostotic fibrous dysplasia involving the clivus. There was no mortality in the series. Permanent neurological complications included one case of monocular blindness, one case of permanent diabetes insipidus, and two permanent cavernous cranial neuropathies. There were four cases of internal carotid artery hemorrhage, one of which required ligation of the cervical internal carotid artery and resulted in hemiparesis. The incidence of postoperative cerebrospinal fluid fistulae was 6% (6 of 105 cases). **CONCLUSION:** These modifications of the standard transsphenoidal approach are useful for lesions within the boundaries noted above, they offer excellent alternatives to transcranial approaches for these lesions, and they avoid prolonged exposure time and brain retraction. Technical details are discussed and illustrative cases presented.

Psychological variables and temporomandibular disorders: distress, coping, and personality. Ferrando, M., Andreu, Y., Galdon, M.J., Dura, E., Poveda, R., Bagan, J.V. Department of Personality, Assessment, and Psychological Treatment, University of Valencia, Spain. *Oral Surgery, Oral Medicine, Oral Pathology, Oral Radiology, and Endodontics* (2004) Aug, Vol. 98 (2), pp. 153–60

OBJECTIVE: This study analyzes the psychological variables of

distress, personality, and coping that are related to the diagnosis based on the Research Diagnostic Criteria for temporomandibular disorder. **STUDY DESIGN:** An age and sex-matched controlled study conducted with a convenience sample (n=89) in a tertiary care facility. **RESULTS:** The MANCOVA between the muscular (n=47), articular (n=42), and control groups (n=100) showed that the muscular group differed from the control group, obtaining higher levels of distress, anxiety, and depression, and minor use of positive reinterpretation and humor as coping strategies; the articular group also showed higher distress, less positive interpretation, and a lower interest in the search of instrumental social support than the control group. The coping predictor of distress in both temporomandibular groups was behavioral disengagement; however, the personality predictors differed. Neuroticism and depression were present in the muscular group, whereas conscientiousness and self-discipline were in the articular group. **CONCLUSION:** Temporomandibular disorder patients have different psychological features than control subjects. There are also some differences between the diagnostic groups that should be considered to address the treatment of these patients.

Impact of image guidance on complications during osteoplastic frontal sinus surgery. Sindwani, R., Metson, R. Department of Otolaryngology, Massachusetts, Eye and Ear Infirmary, Boston, Massachusetts, USA. *Otolaryngology-Head and Neck Surgery* (2004) Sept, Vol. 131 (3), pp. 150–5

OBJECTIVES: To evaluate the impact of image-guidance technology on intraoperative complications during frontal sinus obliteration surgery. **STUDY DESIGN AND SETTING:** Retrospective case control. Twenty-four patients underwent frontal sinus obliteration with image-guidance technology (n = 15) or conventional instrumentation (n = 9) between 1992 and 2003. The image-guidance system was used to delineate the frontal sinus perimeter and direct cuts through the frontal bone. **RESULTS:** Intraoperative complications occurred in none of the patients in the image-guidance group and in 3 patients in the control group (P = 0.042). Adverse events included dural tear with CSF leak in 2 patients and exposure of orbital fat in 1 patient. The incidence of postoperative complications was similar between groups (P = 0.326). No patients required revision surgery. Mean follow-up was 5.2 years. **CONCLUSIONS:** The use of surgical navigation during frontal sinus obliteration appears to improve intraoperative safety. **SIGNIFICANCE:** This is the first report to document a reduction in the rate of intraoperative complications when image guidance is utilized for frontal sinus surgery.

Endoscopic rehabilitation of vocal cord paralysis with a silicone elastomer suspension implant. Duruisseau, O., Wagner, L., Fugain, C., Chabolle, F. Department of ENT and Cervicofacial Surgery, Foch Hospital, Suresnes, France. *Otolaryngology-Head and Neck Surgery* (2004) Sep, Vol. 131 (3), pp. 241–7

OBJECTIVES: Because of the side effects of Teflon, the risk of infection from the use of collagen, autologous fat resorption, and the lack of alternative substances, injection laryngoplasty tends to be replaced by laryngeal framework surgery as the method of choice for the treatment of unilateral vocal cord recurrent paralysis (LP). The aim of this study was to evaluate the results, for morbidity and voice quality, of treating this paralysis by injection of a silicone suspension elastomer implant (SSEI). **STUDY DESIGN:** The study was retrospective, and 19 patients were included. Average follow-up was 25 months (range: 8.3–43). **METHODS:** Each patient underwent clinical and videostroboscopic assessment, and had an electroglottographic recording. Subjective assessment was obtained by self-evaluation. Results were classified as good, fair, or poor, and were based on 2 objective and 3 subjective criteria. A search was made for biologic signs of autoimmune disorders. **RESULTS:** Good, fair, and poor results were respectively 79%, 16%, and 5%. Each set of subjective data showed voice improvement (P < 0.05). The fundamental frequency range, percentage of irregularity, and aspiration decreased significantly (P < 0.05). There was only one case of postoperative dyspnea, which resolved after steroid injection. No biologic signs of autoimmune disorders were found. **CONCLUSIONS:** The use of SSEI is safe. Injection laryngoplasty is easy to perform and avoids cervical scarring. Its results are comparable to those obtained with other techniques, including laryngeal framework surgery, even if there is no standard criterion

for the evaluation of voice quality. SSEI injection can reasonably be proposed as a surgical treatment for permanent unilateral vocal cord LP.

Advances in congenital aural atresia surgery: effects on outcome. Teufert, K.B., De-la-Cruz, A. House Ear Institute, Los Angeles, California, USA. *Otolaryngology-Head and Neck Surgery* (2004) Sep, Vol. 131 (3), pp. 263–70

OBJECTIVES: To compare modifications in the surgical technique of congenital aural atresia (use of argon laser, thinner split-thickness skin graft, Silastic sheets in the external auditory canal, and Meroceel wicks) by examining hearing results and complications before and after initiation of these changes. **STUDY DESIGN AND SETTING:** Retrospective chart review of patients who underwent congenital aural atresiaplasty between 1985 and 2002 in a tertiary referral neurotologic private practice. Complication rates and hearing results were compared before (n = 36) and after (n = 80) modifications in the surgical technique. **RESULTS:** Closure of the air-bone gap to 30 dB or less at short-term follow-up occurred in 63.1% of surgeries performed after modifications in the surgical technique and 44.5% of surgeries performed before these changes. The long-term postoperative air-bone gap was 30 dB or less in 50.0% of the surgeries performed after and 47.1% of the cases performed before the changes in surgical technique. Soft tissue stenosis and bony growth of the external auditory canal were seen in 3.8% of surgeries performed after and 13.9% of surgeries performed before the surgical technique changes. Ossicular chain re-fixation occurred in 3.8% of surgeries performed after and 25.0% of surgeries performed before such changes. There were no dead ears and no facial palsies. **CONCLUSION:** The use of argon laser, thinner split-thickness skin graft, Silastic sheets in the external auditory canal, and Meroceel wicks, as a group, has helped to improve hearing results and decrease the incidence of complications in congenital aural atresia surgery. **SIGNIFICANCE:** Refinements in surgical techniques can lead to measurable improvements in outcome in atresiaplasty.

Is routine triple endoscopy for head and neck carcinoma patients necessary in light of a negative chest computed tomography scan?

Guardiola, E., Pivot, X., Dassonville, O., Poissonnet, G., Marcy, P.Y., Otto, J., Poudenx, M., Francois, E., Bensadoun, R.J., Thyss, A., Demard, F., Schneider, M. Department of Oncology, CHU J. Minjot, Besancon, Cedex, France. *Cancer* (2004) Nov 1, Vol. 101 (9), pp. 2028–33

BACKGROUND: The objective of the current study was to analyze the results obtained by triple endoscopy during the initial evaluation of a primary carcinoma of the head and neck. **METHODS:** A total of 487 patients with a squamous cell carcinoma of the head and neck was studied. None of the patients had evidence of metastasis or a second primary tumor on the thoracic computed tomography (CT) scan or chest X-ray. All patients underwent a triple endoscopy including nasopharyngoscopy, laryngoscopy, pharyngoscopy, bronchoscopy, and esophagoscopy. **RESULTS:** A synchronous primary invasive carcinoma of the lung and esophagus was diagnosed in 5 patients (1%) and 10 patients (2%), respectively. In addition, nine lesions were considered to be a regional extension of the primary tumor to the esophagus, and nine in situ carcinomas were observed. It is interesting to note that a significant correlation was found between the risk of a second synchronous esophageal carcinoma and the initial location of the primary head and neck carcinoma (P = 0.002, chi-square test). Oesophageal carcinoma was observed in 1.3% of the patients with an oropharyngeal tumor, 2% of the patients with a laryngeal tumor, none of the patients with a tumor of the oral cavity, and 9.2% of the patients with a hypopharyngeal tumor. **CONCLUSIONS:** The role of bronchoscopy and esophagoscopy in the presence of a normal thoracic CT scan has been questioned because of the relatively low incidence of a second esophageal and/or lung primary tumor. Nonetheless, based on the same incidence criterion, it appears reasonable to schedule a routine esophagoscopy for those patients with a squamous cell carcinoma of the hypopharynx.