

Abstract Selection

Carotid body tumors, inheritance, and a high incidence of associated cervical paragangliomas. Gardner, P., Dalsing, M., Weisberger, E., Sawchuk, A., Miyamoto, R. Departments of Surgery, Indiana University Medical Center, Indianapolis 46202, USA. *American Journal of Surgery* (1996) August, Vol. 172 (2), pp. 196–9.

BACKGROUND: Current experience with carotid body tumours suggesting a high prevalence of associated cervical paragangliomas prompted this review. **PATIENTS AND METHODS:** An eight-year retrospective study of patients with carotid body tumours was undertaken, detailing presentation, diagnosis, and treatment. **RESULTS:** Eleven patients harbouring 17 carotid body tumours were discovered. All patients had a neck mass. Seven patients (64 per cent) had bilateral carotid body tumours. Six (55 per cent) reported a positive family history-four were first-generation relatives, five had bilateral tumours, and three had other head and neck paragangliomas. Angiography documented four associated vagal and two glomus jugulare paragangliomas in addition to the carotid body tumours. Precise surgical care limited blood loss to an average of 590 cc. The carotid artery was repaired during five resections (29 per cent). Cranial nerve injury occurred in three cases, all following vagal body or glomus jugulare resection. Every patient is currently alive, stroke free, and functioning without major disability. **CONCLUSIONS:** Patients with carotid body tumours have a propensity for multiple head and neck paragangliomas. Angiography is diagnostic. The need for associated paraganglioma resection dramatically increases the risk of cranial nerve injury. Author.

Transverse glabellar flap for obliteration/isolation of the nasofrontal duct from the anterior cranial base. Disa, J. J., Robertson, B. C., Metzinger, S. E., Manson, P. N. Division of Plastic Surgery, Johns Hopkins Hospital, Baltimore, MD 21287-0981, USA. *Annals of Plastic Surgery* (1996) May, Vol. 36 (5), pp. 453–7.

Management of fractures involving the nasofrontal duct region of the frontal sinus has focused on preserving function when possible or obliterating the sinus and duct when fracture patterns potentiate ductal obstruction and possible transcranial seeding of bacteria. When frontal sinus preservation is in doubt, controversy surrounds the use of cranialization versus obliteration, and the method of obliteration. Perioperative and late postoperative infections are uncommon, but their occurrence jeopardizes an often complex reconstruction and can be life threatening. This paper describes the design and indications for a pedicled transverse glabellar muscle flap for obliteration of the nasofrontal duct, thereby isolating the anterior cranial base from the aerodigestive system. This vascularized muscle flap utilizes the corrugator supercilii and procerus muscles, which are introduced into the sinus via a small, surgically created window in the superomedial orbital wall without disturbing the central facial aesthetic contours. Six patients with comminuted fractures at the nasofrontal duct level associated with displaced posterior frontal sinus fractures have been treated with the transverse glabellar flap. Follow-up ranges from eight to 30 months. There have been no early or late postoperative complications. The transverse glabellar flap. Follow-up ranges from eight to 30 months. There have been no early or late postoperative complications. The transverse glabellar flap is a reliable and versatile method of partitioning the upper aerodigestive tract from the anterior cranial base with vascularized tissue, thus minimizing the risk of infectious complications. The resulting donor site deformity is more acceptable than that seen with the traditional pedicled galeal frontal flap. Author.

Pyramidal cells in primary auditory cortex project to cochlear nucleus in rat. Weedman, D. L., Ryugo, D. K. Department of Otolaryngology-Head and Neck Surgery, Johns Hopkins University School of Medicine, Baltimore, MD 21205, USA. *Brain Research* (1996) January 8, Vol. 706 (1), pp. 97–102.

Recent work has demonstrated that the auditory cortex in rat sends direct projections to the auditory nuclei of the brainstem, including direct projections to the auditory nuclei of the brainstem, including the cochlear nucleus and superior olive. To determine the cortical origin of the projections to cochlear nucleus, Fast Blue, a retrograde fluorescent tracer, was injected into the cochlear nucleus. Labeled cells in the forebrain was then studied with light microscopy and mapped. The projection was found to originate from large pyramidal neurons in layer V of primary auditory cortex. The projection was predominantly ipsilateral, and no labeled neurons were found in other cortical areas. These data imply that primary auditory cortex exerts influence over ascending auditory information at the earliest stages of the central auditory system. Author.

Skull base erosion in nasopharyngeal carcinoma: detection by CT and MRI. Chong, V. F., Fan, Y. F. Department of Diagnostic Radiology, Singapore General Hospital. *Clinical Radiology* (1996) September, Vol. 51 (9), pp. 625–31.

It is generally accepted that computed tomography (CT) is superior to magnetic resonance imaging (MRI) in demonstrating bony erosion while MRI is better in delineating soft tissue abnormality. The ability to detect skull base erosion by CT and MRI was compared in a retrospective study of 114 patients with nasopharyngeal carcinoma (NPC). Involvement of the following structures was demonstrated on CT and MRI: pterygoid plates (CT-10 (nine per cent) patients, MRI-8 (seven per cent) patients); pterygoid process (CT-22 (19 per cent) patients, MRI-22 (19 per cent) patients); clivus (CT-17 (15 per cent) patients, MRI-26 (23 per cent) patients); petrous apex (CT-20 (18 per cent) patients, MRI-34 (30 per cent) patients); sphenoid body/sinus (CT-31 (27 per cent) patients, MRI-32 (28 per cent) patients); sphenoid wing (CT-12 (11 per cent) patients, MRI-16 (14 per cent) patients). Erosion of the foramen ovale could be seen on CT in 19 (17 per cent) patients but tumour was noted in the foramen in 28 (25 per cent) patients using MRI. Contrary to common belief, MRI appears to be more sensitive in detecting bony involvement in the petrous apex, the clivus and the sphenoid wing. MRI is, therefore, the preferred technique in demonstrating skull base involvement. Author.

Carcinoma of the larynx and hypopharynx in the elderly. Thompson, A. C., Quraishi, S. M., Morgan, D. A., Bradley, P. J. Combined Head and Neck Oncology Clinic, University Hospital, Queen's Medical Centre, Nottingham, UK. *European Journal of Surgical Oncology* (1996) February, Vol. 22 (1), pp. 65–8.

The outcome of a series of 68 patients over 75 years old with carcinoma of the larynx, and 33 patients over 75 years old with hypopharyngeal carcinoma managed by a single logical team during a 10-year period was studied. Sixty-one of the patients with laryngeal carcinoma were treated with curative intent. The actuarial three-year survival rate of the whole group was 45 per cent. This contrasts with hypopharyngeal carcinoma which we found a three-year survival of 11 per cent with only 17 of the 33 patients suitable for treatment with curative intent. In view of the anticipated poor prognosis of hypopharyngeal carcinoma in the elderly we conclude that treatment should be directed towards palliation without radical surgery whenever possible. Author.

Spontaneous immunoglobulin production by adenoidal and tonsillar lymphocytes in relation to age and otitis media with effusion. Harabuchi, Y., Hamamoto, M., Kodama, H., Kataura, A. Department of Otolaryngology, School of Medicine, Sapporo Medical University, Japan. *International Journal of Pediatric Otorhinolaryngology* (1996) April, Vol. 35 (2), pp. 117–25. Spontaneous immunoglobulin (Ig) production by autologous adenoidal and tonsillar lymphocytes cultured without any mitogen was measured by an enzyme-linked immunosorbent assay (ELISA) in 18 children with or without otitis media with effusion (OME). Both IgG and IgA levels synthesized by adenoidal or tonsillar lymphocytes significantly increased with age. The average concentrations of IgG and IgA produced by adenoidal lymphocytes from children with OME were significantly lower than those from children without OME. Adenoidal lymphocytes produced IgG and IgM at significantly lower levels than autologous tonsillar lymphocytes did in children with OME. In contrast, no significant difference between adenoidal and tonsillar lymphocytes was seen on Ig production for any isotypes in children without OME. These results may indicate immunological impairment of the adenoids associated with OME. Author.

Database for sensorineural hearing loss. Fishman, A. J., Sculerati, N. Department of Otolaryngology, New York University School of Medicine, N.Y. 10016, USA. *International Journal of Pediatric Otorhinolaryngology* (1996) April, Vol. 35 (2), pp. 155–63. We are creating a bank of EBV immortalized lymphoblast cells and extracted DNA taken from the blood of deaf children and their relatives, in order to study the molecular basis of hereditary deafness. We have established a corresponding database for sensorineural hearing loss that records clinical data for each entered specimen. The purpose of this paper is to present the content and design of the computerized relational database. The data model is designed first to identify known etiologies of deafness, either acquired or syndromic, and then to characterize the clinical features of the deaf individual and both their affected and non-affected family members. The application operates in a graphical environment of visual prompts and message panels. The database is organized by sections which record demographic data, presenting complaints, otologic history, birth and perinatal history, developmental history, symptoms of chronic airway obstruction, family history, neurologic history, congenital infections, hospitalizations and surgical history, congenital infections, hospitalizations and surgical history, medication history, vestibular findings, audiometry, radiology, medical conditions and syndromes and physical examination. The database was developed on a commercially available software product. Our database is presented as a model for use by other clinicians and investigators. Author.

Microbial flora of the subglottis in intubated pediatric patients. Brown, O. E., Manning, S. C. Department of Otolaryngology, UT Southwestern Medical Center at Dallas 75235-9035, USA. *International Journal of Pediatric Otorhinolaryngology* (1996) April, Vol. 35 (2), pp. 97–105. Infection of the intubated subglottis is felt to be one of the many factors involved in the pathogenesis of acquired cicatricial subglottic stenosis. The precise role of infection is unclear and the microbial flora has not been established. An analysis of subglottic culture material, from 22 intubated pediatric patients undergoing tracheotomy, has been performed to establish the nature of the subglottic microbial flora. Fifty-nine isolates were found, including 19 types of organisms. The number of isolates per patient ranged from one to eight, with an average of 2.7 isolates per patient. The most common isolates in the 22 patients were alpha-hemolytic *Streptococcus viridans* (17 isolates – 77 per cent), *Neisseria* sp. (six isolates – 27 per cent), *Pseudomonas* sp. (five isolates – 22 per cent), and coagulase negative *Staphylococcus* sp. (five isolates – 22 per cent). This data indicates that colonization of the subglottis in intubated pediatric patients is polymicrobial in nature. alpha-Hemolytic *Streptococcus viridans* and *Neisseria* sp. were most common, with a shift in cultured flora towards *Pseudomonas* sp. in patients intubated for more than 10 days. In view of this, antimicrobial therapy may be of benefit in preventing acquired cicatricial subglottic stenosis. Author.

Improvement of quality of life by treatment, with cetirizine in patients with perennial allergic rhinitis as determined by a French version of the SF-36 questionnaire. Bousquet, J., Duchateau, J.,

Pignat, J. C., Fayol, C., Marquis, P., Mariz, S., Ware, J. E., Valentin, B., Burtin, B. Services des Maladies Respiratoires, Hôpital Arnaud de Villeeneuve, Montpellier, France. *Journal of Allergy in Clinical Immunology* (1996) August, Vol. 98 (2), pp. 309–16. **BACKGROUND AND AIM:** Perennial allergic rhinitis impairs social life, but it is not known whether quality of life may be improved when patients are treated with an H1-blocker. A randomized, double-blind, placebo-controlled study was carried out with cetirizine to assess the effect of this drug on quality of life. **METHODS:** Two hundred seventy-four patients with perennial allergic rhinitis were tested. Quality of life was measured by using the Medical Outcome Study Short-Form Health Survey (SF-36) questionnaire. After a two-week run-in period, cetirizine, 10 mg once daily, (136 patients) of placebo (138 patients) was given for the next six weeks. The SF-36 questionnaire was administered after the run-in period (at the start of treatment) and after one and six weeks of treatment. Symptom-medication scores were measured daily during the study. **RESULTS:** After the run-in period (baseline), there were no significant differences between the cetirizine and placebo groups in terms of symptoms or quality-of-life scores. After six weeks of treatment, percentage of days without rhinitis or with only mild rhinitis symptoms was significantly greater in the cetirizine group in comparison with the placebo group ($p < 0.0001$, Mann-Whitney U test). All of the nine quality-of-life dimensions were significantly improved (from $p = 0.01$ to $p < 0.0001$, Mann-Whitney U test) after one and six weeks of cetirizine treatment compared with placebo. There was no improvement in the placebo group. **CONCLUSIONS:** This study is the first to demonstrate that an H1-blocker, cetirizine, can improve quality of life for patients with perennial allergic rhinitis. Author.

Double-blind randomised trial of co-amoxiclav versus placebo for persistent otitis media with effusion in general practice. van Balen, F. A., de Melker, R. A., Touw-Otten, F. W. Department of General Practice, University of Utrecht, Netherlands. *Lancet* (1996) September 14, Vol. 348 (9029), pp. 713–6. **BACKGROUND:** The treatment of persistent otitis media with effusion (OME) remains controversial, but this condition is the commonest reason for children to require ear, nose, and throat (ENT) surgery. Trials of antibiotics are inconclusive, are often weak methodologically, and have not been done in general practice. Our aim was a trial of an antibiotic for OME in such a population. **METHODS:** Four hundred and thirty-three children, aged six months to six years, with OME from 57 general practices entered a three-month watchful waiting period. Of 223 (52 per cent) with persistent bilateral OME, 162 were randomized double-blind to receive co-amoxiclav suspension (20 mg/kg amoxicillin, 5 mg/kg clavulanate potassium) or matching placebo, orally three times a day for 14 days. All cases also received xylometazoline 0.25 per cent decongestant nosedrops thrice daily. Of the 61 not randomized, 13 children were referred to an ENT surgeon and parents refused consent in 48 cases. The main outcome measures were persistent OME in both ears and in one or both ears, as assessed clinically and by tympanometry. Analysis was by intention-to-treat. **FINDINGS:** Seventy-nine children in the treatment group and 70 in the placebo group were analysed for efficacy. Three withdrew in the co-amoxiclav group (two lost to follow-up, one due to side-effects); six withdrew in the placebo group (five and one, respectively). In addition, four tympanograms were uninterpretable in the controls. Compliance was over 90 per cent in both groups. Persistent OME in both ears and in one or both ears were found at significantly lower rates in the co-amoxiclav group than in the controls at the two-week follow-up: 53 vs 84 per cent and 77 vs 93 per cent, respectively. Odds ratios adjusted for sex, history of adenoidectomy, and upper respiratory tract infection at follow-up were 0.25 (95 per cent CI 0.11, 0.58, $p = 0.001$) and 0.30 (0.10, 0.89, $p = 0.03$), respectively. Parents of children in the co-amoxiclav group reported significantly more side-effects than those of control children (44 vs 22 per cent, $p = 0.03$). Side-effects were mostly gastrointestinal and mild. **INTERPRETATION:** Our study in a general-practice setting confirmed the positive short-term effect of antibiotic treatment for persistent middle-ear infection. Before referral to an ENT surgeon, children with persistent OME presenting to general practitioners could be considered for such treatment, depending on the individual child and possible adverse sequelae. Author.