

Abstract Selection

Tinnitus, vertigo, and temporomandibular disorders. Parker, W. S., Chole, R. A. Department of Otolaryngology, School of Medicine, University of California, Davis. *American Journal of Orthodontics and Dento-Facial Orthopaedics* (1995) February, Vol. 107 (2), pp. 153-8.

Although tinnitus and vertigo have been reported as associated with temporomandibular disorders (TMD) for many years, no control studies have been reported. This study was designed to include two large control populations, as well as a large TMD sample. The null hypothesis was tested. The results revealed that tinnitus and vertigo were significantly more prevalent in the TMD group than in either control group. Reasons for the association of TMD and these otologic symptoms have been proposed and they are discussed. Presently the cause is unknown. Author.

The ultimate modification in the modified neck dissection. Porter, G. A., Temple, W. J., Huchcroft, S. Department of Surgery, Faculty of Medicine, University of Calgary, Alberta, Canada. *American Journal of Surgery* (1995) February, Vol. 169 (2), pp. 280-1.

PURPOSE: A study was undertaken to study the potential benefits for function and regional recurrence of preserving the sensory ventral branches of the cervical plexus in modified neck dissections. **METHODS:** Fifteen cases of squamous cell carcinoma or melanoma of the head and neck in which the sensory nerves were spared were matched to 15 cases in which the nerves were sacrificed. The subjects were examined for sensory loss, questioned regarding acute and chronic dysfunction, and followed for regional recurrence for a minimum of two years. **RESULTS:** The group whose nerves were preserved had significantly less sensory loss and a lower incidence of acute and chronic dysfunction. No subjects in either group had regional recurrence. **CONCLUSION:** The results of this initial study support a policy of routine preservation of the sensory ventral branches of the cervical plexus when there is no direct tumor involvement. Author.

Transcervical repair of distal membranous tracheal laceration. Angelillo-Mackinlay, T. Division of Thoracic Surgery, British Hospital of Buenos Aires, Argentina. *Annals of Thoracic Surgery* (1995) February, Vol. 59 (2), pp. 531-2.

A laceration of the distal membranous trachea usually has been repaired through a right thoracotomy, and occasionally through a lateral cervical approach. In the case reported here, a simple method of treating this complication was used that involved a mediastinoscopy incision. Suturing of the tear is carried out easily through a vertical incision made in the anterior wall of the trachea, which is then closed with no further consequences. The patient made a quick recovery, and the cosmetic result was excellent. Author.

Do nasal mast cells release histamine on stimulation with substance P in allergic rhinitis? (see comments). Braunstein, G., Buvry, A., Lacroinque, J., Desjardins, N., Frossard, N. Laboratoire de physiologie respiratoire, UFR Cochin-Port-Royal, Paris, France. *Clinical Experiments in Allergy* (1994) October, Vol. 24 (10), pp. 922-9. Comment in: *Clinical and Experimental Allergy* (1994) October; 24 (10): 897-8.

The effects of nasal administration of increasing doses of exogenous substance P have been studied in patients with allergic rhinitis treated with placebo or with the H1 antagonist cetirizine (10 mg twice daily for three days). Responses to substance P were assessed by posterior rhinomanometry (measuring nasal airway resistance) and by measure of histamine, protein and albumin production and cell recovery in nasal lavage fluids before and after challenge. Substance P induced a dose-dependent increase in nasal airway resistance which was similar after treatment with either

cetirizine or placebo (maximal increase in nasal airway resistance was 4.2-fold greater than the baseline with the placebo and 4.7-fold greater than the baseline with cetirizine). No histamine release was observed after stimulation with substance P along with the placebo (protein: from 0.35 ± 0.11 to 3.31 ± 0.62 mg and albumin: from 0.09 ± 0.04 to 2.8 ± 0.39 mg) and when combined with cetirizine treatment (proteins: from 0.42 ± 0.09 to 3.62 ± 0.77 and albumin: from 0.17 ± 0.04 to 2.19 ± 0.51 mg). After stimulation with substance P, percentages of neutrophils recovered in nasal fluids increased from 26.2 ± 11.5 to 54.5 ± 9.5 with the placebo and from 35.5 ± 11.0 to 53.6 ± 9.5 with cetirizine. Eosinophils were inconsistently found after substance P stimulation during both treatments. In conclusion, nasal response to substance P is not modified by cetirizine which suggests that the effect of substance P is not secondary to histamine release in the nose in man. Author.

Influence of prolonged treatment with topical corticosteroid (fluticasone propionate) on early and late phase nasal responses and cellular infiltration in the nasal mucosa after allergen challenge. Rak, S., Jacobson, M. R., Sudderick, R. M., Masuyama, K., Juliusson, S., Kay, A. B., Hamid, Q., Lowhagen, O., Durham, S. R. Department of Allergy and Clinical Immunology, National Heart and Lung Institute, London, UK. *Clinical and Experimental Allergy* (1994) October, Vol. 24 (10), pp. 930-9.

We have examined the effect of prolonged treatment with topical corticosteroid on allergen-induced early and late nasal responses and the associated inflammatory cell infiltrate in grass pollen sensitive allergic rhinitis. Following a randomized double-blind six week treatment period with fluticasone propionate 200 micrograms aqueous nasal spray twice daily or matched placebo spray, nasal provocation was performed using Timothy grass pollen extract. Nasal symptoms were recorded at intervals from 0 to 24 h. Nasal biopsies were performed before treatment and at 24 h after allergen and processed for immunohistology. When corticosteroid-treated patients were compared with the placebo group there was an approximately 50 per cent decrease in the size of the early (0-60 min) response and almost complete inhibition of late (1-24 h) nasal symptoms after allergen challenge. After allergen challenge markedly fewer T lymphocytes and CD25+ (interleukin-2 receptor bearing) cells were observed in both the epithelium and submucosa in fluticasone treated patients compared with the placebo group. Significantly less total and activated eosinophils were observed, particularly within the nasal epithelium. Submucosal mast cell counts were decreased, whereas increased numbers of submucosal neutrophils were observed. These results confirm that topical corticosteroid treatment inhibits allergen-induced early and late nasal responses. This may possibly occur following a decrease in T lymphocytes and/or mast cells and their products and a consequent reduction in tissue eosinophilia. Author.

Limitations of panoramic radiography in the detection of bone defects in the posterior wall of the maxillary sinus: an experimental study. Ohba, T., Ogawa, Y., Shinohara, Y., Hiromatsu, T., Uchida, A., Toyoda, Y. Department of Dental Radiology, Kyushu Dental College, Kitakyushu, Japan. *Dento-maxillofacial Radiology* (1994) August, Vol. 23 (3), pp. 149-53. Some lesions in the maxillary sinus may be adequately detected by panoramic radiography. The present study was designed to evaluate the ability of panoramic radiography in detecting experimental bony defects in the posterior wall of the maxillary sinus by comparison with Waters' projection and CT. Bony defects in the mediosuperior and medioinferior regions of the posterior wall were readily detected by panoramic radiography, but those in

the laterosuperior or centre were not. It is concluded that there are limitations to the detection of bony defects in the posterior wall of the maxillary sinus by panoramic radiography alone. It is recommended that this technique should not be used for the detection of small osteolytic lesions in the maxillary sinus. Author.

Physiology of oral swallowing studied by ultrasonography. Fanucci, A., Cerro, P., Ietto, F., Brancaleone, C., Berardi, F. Department of Radiology, Federico II University, Naples, Italy. *Dentomaxillofacial Radiology* (1994) November, Vol. 23 (4), pp. 221-5.

The aim of the study was to identify a number of sonographic landmarks in the evaluation of the oral phase of swallowing. Forty non-dysphagic adults (average age 38 years) and 20 normal bottle-fed newborns (average age 13 days) were submitted to videorecorded sonographic examination using two types of transducers (5 and 7.5 MHz). The adults were asked to swallow a 20 ml bolus of water and the newborns were examined while sucking from a bottle containing milk. Preliminary transverse scans of the neck were obtained to evaluate laryngeal movements during swallowing. The mouth was examined through the submental window using sagittal and coronal scans. In the newborn, additional transbuccal scans were employed. In both adults and newborns highly significant and reproducible images of single-element motor events involved in swallowing were obtained. Normal sonographic images of the oral stage of deglutition form the baseline from which abnormal patterns may then be recognized. Author.

Factors that influence successful decannulation after surgery for laryngo-tracheal stenosis in children. Prescott, C. A. Department of Otolaryngology, University of Cape Town, South Africa. *International Journal of Pediatric Otorhinolaryngology* (1994) November, Vol. 30 (3), pp. 183-8.

The process of decannulation requires attention to details from the time of initial tracheostomy, through the pre- and peri-operative period up until the decannulation event. Important points to consider during this process are: a formal tracheostomy rather than a tracheostomy; other potential sites of obstruction than the laryngeal stenosis; gastroesophageal reflux; prevention and control of infection and the use of prophylactic antibiotics; method and type of suture material; stenting; movement and method of feeding. Decannulation itself requires attention to removal of granulation tissue and control of tracheomalacia and tracheostenosis. Author.

Chronological changes of auditory brainstem responses in Cockayne's syndrome. Iwasaki, S., Kaga, K. Department of Otolaryngology, University of Tokyo, Japan. *International Journal of Otorhinolaryngology* (1994) November, Vol. 30 (3), pp. 211-21. Cockayne's syndrome (CS) is a rare autosomal recessive premature-aging disorder which is clinically characterized by physical and mental retardation, retinal pigmentation, sensorineural deafness and other neurological abnormalities. Auditory brainstem responses (ABRs) and behavioral audiometry were studied in four cases of confirmed CS chronologically. In one case, ABRs were normal at first but became abnormal. Initially, ABRs revealed only wave I with prolonged latency and thereafter no response. In another case, ABRs revealed the absence of all waves beyond wave III and then revealed the disappearance of all waves. In two other cases, ABRs were absent from the first testing. Behavioral levels were elevated in all four cases. In two cases, behavioral levels did not change in spite of partial disappearance of ABR waves, but they had elevated severely since all waves including wave I disappeared. Our findings suggest that the disease spreads from the upper brainstem to the cochlear nerve and that the site of the lesion causing hearing loss in CS is in the brainstem lesion as well as the peripheral one. Author.

Short-term use of amoxicillin-clavulanate during upper respiratory tract infection for prevention of acute otitis media. *Journal of Pediatrics* (1995) February, Vol. 126 (2), pp. 313-6.

We performed a randomized, double-blind, placebo-controlled study to determine whether acute otitis media could be prevented by antibiotic therapy initiated promptly after the appearance of symptoms of upper respiratory tract infection. One hundred and four children aged one to four years received a seven-day course of either amoxicillin-clavulanate or placebo. Acute otitis media

developed in nine (18 per cent) of the 50 children receiving amoxicillin-clavulanate and in 12 (22 per cent) of the 54 children receiving placebo ($P = 0.59$). Author.

Temporomandibular disorders in the geriatric population. Greene, C. S. Northwestern University Dental School, Chicago, Ill. *Journal of Prosthetic Dentistry* (1994) November, Vol. 72 (5), pp. 507-9. Contrary to popular assumptions that temporomandibular disorders may become more prevalent with increasing age, a review of the literature shows that this is clearly not the case. Instead, it seems that most objective 'signs' of temporomandibular disorders, namely clicking, tender joints and muscles, crooked opening, limited movement, and so forth, are found either less often in the elderly or at approximately the same rate in all adult age groups. Subjective complaints, however, decrease as populations get older, and the demand for treatment declines accordingly. Author.

Bacterial colonization of the nasopharynx predicts very early onset and persistence of otitis media in Australian aboriginal infants. Leach, A. J., Boswell, J. B., Asche, V., Nienhuys, T. G., Mathews, J. D. Menzies School of Health Research, Darwin, Northern Territory, Australia. *Pediatric Infectious Diseases Journal* (1994) November, Vol. 13 (11), pp. 983-9.

Otitis media (OM) develops in the first months of life and persists throughout childhood in many rural Aboriginal children. We have followed Aboriginal and non-Aboriginal infants from birth to determine the relationship of the early onset of OM to nasopharyngeal colonization with respiratory pathogens. Aboriginal infants were colonized with multiple species of respiratory bacteria (*Moraxella catarrhalis*, *Haemophilus influenzae*, *Streptococcus pneumoniae*) at a rate of five per cent per day and the timing of colonization predicted the onset of persistent OM in individual Aboriginal infants. Non-Aboriginal infants became colonized by *M. catarrhalis* alone at the slower rate of one per cent per day and experienced transient episodes of OM in the absence of colonization. We attribute early bacterial colonization in most Aboriginal infants to high rates of cross-infection due to overcrowding, poor hygiene and high rates of bacterial carriage. Early age of infection and the multiplicity of bacterial types may contribute to prolonged carriage and to eustachian tube damage leading to persistent OM. Thus Aboriginal infants are 'otitis-prone' and might qualify for prophylactic antibiotics. Author.

Quinsy tonsillectomy or interval tonsillectomy—a prospective randomized trial. Fagan, J. J., Wormald, P. J. Department of Otorhinolaryngology, Groote Schuur Hospital, Cape Town. *South African Medical Journal* (1994) October, Vol. 84 (10), pp. 689-90. Fifty-one patients with peritonsillar abscesses were randomized to undergo either quinsy tonsillectomy (QT) or interval tonsillectomy (IT) and the two groups were compared. The QT group lost fewer (10.3 v. 17.9) working days and less blood during the operation (158.6 ml v. 205.7 ml); haemostasis was easier and the operation was technically simpler in this group. There was no significant difference in length of hospital stay and neither group had intra- or post-operative complications. Only 64 per cent of the IT group returned for tonsillectomy. In this study QT had distinct advantages over drainage and IT in the management of peritonsillar abscesses. Author.

In vivo evidence of structural brain asymmetry in musicians. Schlaug, G., Jancke, L., Huang, Y., Steinmetz, H. Department of Neurology, Heinrich-Heine-Universität Dusseldorf, Germany. *Science* (1995) February 3, Vol. 267 (5198), pp. 699-701. Comment in: *Science* (1995) February 3, 267 (5198): 616.

Certain human talents, such as musical ability, have been associated with left-right differences in brain structure and function. *In vivo* magnetic resonance morphometry of the brain in musicians was used to measure the anatomical asymmetry of the planum temporale, a brain area containing auditory association cortex and previously shown to be a marker of structural and functional asymmetry. Musicians with perfect pitch revealed stronger leftward planum temporale asymmetry than non-musicians or musicians without perfect pitch. The results indicate that outstanding musical ability is associated with increased leftward asymmetry of cortex subserving music-related functions. Author.