

## Abstract Selection

**Effect of astemizole on antigen-mediated histamine release from the blood of patients with allergic rhinitis.** Faraj, B. A., Jackson, R. T. Department of Radiology (Division of Nuclear Medicine), Emory University School of Medicine, Atlanta, Georgia 30322. *Allergy* (1992) Dec, Vol. 47 (6), pp. 630–4.

The main objective of this study was to test the effectiveness of astemizole in vitro in blocking the release of histamine from blood of patients with allergic rhinitis. The results of this investigation indicated that astemizole inhibited allergen-mediated histamine release from blood basophils of patients with this allergic disorder. The inhibition by astemizole (33–156  $\mu\text{mol}$ ) was immediate, requiring no pre-incubation of the cells, and was dose-dependent, with maximal inhibition of about 91 per cent. The relatively high potency of astemizole in inhibiting the immunologic release of histamine may provide an additional measure in the treatment of allergic rhinitis with this H<sub>1</sub>-receptor antagonist. Author.

**Cell content and albumin concentration in nasal lavage from patients with rhinitis.** Prat, J., Xaubet, A., Mullol, J., Plaza, V., Picado, C. Servei de Pneumologia, Hospital Clinic, Facultat de Medicina, Barcelona, Spain. *Annals of Allergy* (1993) Feb, Vol. 70 (2), pp. 175–8.

Influx of inflammatory cells in the nose was evaluated in 14 patients with rhinitis and 11 healthy subjects. Nasal secretions were obtained by nasal lavages. Total cell count and differential count were carried out with a Neubauer chamber and in cytospin slides, respectively. Cells were classified according to their morphology as epithelial cells without nuclei (degenerated), epithelial nucleated cells, neutrophils, eosinophils, and other. Total protein and albumin concentration were measured by the Lowry method and a nephelometric assay respectively. A statistically significant difference was found in total nucleated epithelial cells ( $P < 0.01$ ), total neutrophils ( $P < 0.01$ ), and total eosinophils ( $P < 0.05$ ) between patients and healthy subjects. A significant correlation was found between albumin/total protein concentration with eosinophil numbers ( $r = 0.83$ ,  $P < 0.001$ ) in patients with rhinitis. These findings suggest that eosinophils participate in the inflammatory process taking place in rhinitis. Since the cellularity present in the nose of rhinitic patients is similar to that usually found in the bronchial secretions of asthmatic patients obtained by bronchoalveolar lavage, our results also suggest that nasal lavage may be used in the study of the inflammatory cells involved in airway diseases. Author.

**Dexamethasone as adjuvant therapy for severe acute pharyngitis.** O'Brien, J. F., Meade, J. L., Falk, J. L. Department of Emergency Medicine, Orlando Regional Medical Centre, Florida. *Annals of Emergency Medicine* (1993) Feb, Vol. 22 (2), pp. 212–5.

**STUDY OBJECTIVE:** To determine the efficacy of dexamethasone as adjuvant therapy to improve pain relief in patients with severe, acute exudative pharyngitis. **DESIGN:** Prospective, randomized, double-blinded, placebo-controlled clinical trial. **SETTING:** Large, urban community hospital emergency department with an emergency medicine residency program. **TYPE OF PARTICIPANTS:** Patients aged 12 to 65 years old with exudative pharyngitis and severe dysphagia/odynophagia. Patients with cancer, AIDS, diabetes mellitus, recent steroid use, pregnancy, or suspicion of peritonsillar abscess were excluded. **INTERVENTIONS:** All patients received oral penicillin (500 mg Pen VK) or erythromycin (333 mg base) three times daily for ten days in addition to either 10 mg single-dose dexamethasone or saline placebo IM injection. **MEASUREMENTS AND RESULTS:** Fifty-eight patients graded their initial degree of throat pain on a visual-analog scale that was 15 cm long and scored from 0 to 3.0 in 0.5 cm increments. Follow-up was obtained on 51 patients to determine their condition at 24 hours. At entry, there was no difference in age, weight, antibiotic assignment, or initial pain score between groups. Improvement in pain score (initial versus 24 hours) was  $1.8 \pm 0.8$  in the 26 patients of the dexamethasone group and  $1.2 \pm 0.9$  in the 25 patients of the

placebo group ( $P < 0.05$ ). Time to onset of pain relief was also faster in steroid-treated patients who demonstrated relief beginning at  $6.3 \pm 5.3$  hours, compared with  $12.4 \pm 8.5$  hours in the placebo group ( $P < 0.01$ ). Of the 26 patients evaluated at seven days (13 in each group), time to complete lack of pain averaged  $15.0 \pm 11.4$  hours in the dexamethasone group and  $35.4 \pm 17.9$  hours in the placebo group ( $P < 0.02$ ). Complications attributable to dexamethasone were not observed. **CONCLUSION:** In patients with severe, acute exudative pharyngitis, single-injection dexamethasone adjuvant compared with placebo resulted in statistically and clinically significant improvement, as evidenced by more rapid onset and greater degree of pain relief. Author.

**Synapse loss in the temporal lobe in Alzheimer's disease.** Scheff, S. W., Price, D. A. Department of Anatomy and Neurobiology, University of Kentucky, Lexington. *Annals of Neurology* (1993) Feb, Vol. 33 (2), pp. 190–9.

The temporal lobe is a well-documented area showing neuropathological and neurochemical changes in Alzheimer's disease (AD). Autopsy tissue was obtained from the superior temporal (Brodmann area 22) and the middle temporal (Brodmann area 21) regions of the cortex from patients with AD ( $n = 10$ ; postmortem time  $< 13$  hr) and age-matched control subjects ( $n = 10$ ; postmortem time  $< 13$  hr). Ultrastructural examination of the tissue revealed a highly significant AD-related decline in synaptic numbers in lamina III and V in both the superior and the middle temporal gyrus. Both normal control and AD tissue samples demonstrated a significant negative correlation between the number of synapses and the synapse size, as indexed by the length of the postsynaptic density. This change in synaptic size appears to compensate for the loss of synaptic numbers when viewed in terms of total synaptic contact area. Although the AD tissue showed an average 30 per cent decline in synaptic numbers, the total synaptic contact area remained largely unchanged in both regions of the cortex. There were no significant correlations with age, postmortem time, or number of plaques observed in these areas. The loss of synaptic contacts in AD does not appear to be isolated to a particular cortical region or lamina. Author.

**An investigation of normally hearing subjects with tinnitus.** McKee, G. J., Stephens, S. D. Welsh Hearing Institute, University Hospital of Wales, Cardiff, UK. *Audiology* (1992), Vol. 31 (6), pp. 313–7.

The hearing sensitivity and psychological profile of 18 young subjects with tinnitus and normal hearing were investigated by pure-tone and high-frequency audiometry, notched-noise tests, auditory-brainstem responses, evoked otoacoustic emissions and Crown-Crisp experiential index. Psychoacoustical and brainstem tests were comparable to those of 19 normally hearing subjects without tinnitus. Otoacoustic emissions were worse in ears of tinnitus subjects. Neurotic personality traits were stronger in the tinnitus subjects. These traits may be secondary to otological dysfunction, or may contribute to complaint behaviour. Author.

**Noise and the classical musician.** McBride, D., Gill, F., Proops, D., Harrington, M., Gardiner, K., Attwell, C. Institute of Occupational Health, University of Birmingham. *British Medical Journal* (1992) Dec 19–26, Vol. 305 (6868), pp. 1561–3.

**OBJECTIVES—**To test the hypothesis that noise exposure may cause hearing loss in classical musicians. **DESIGNS—**Comparison of hearing levels between two risk groups identified during the study by measuring sound levels. **SETTING—**Symphony orchestra and occupational health department in the west Midlands. **MAIN OUTCOME MEASURES—**Hearing level as measured by clinical pure tone audiometry. **RESULTS—**Trumpet and piccolo players received a noise dose of 160 per cent and 124 per cent, respectively, over mean levels during part of the study. Comparison of the hearing levels of 18 woodwind and brass musicians with 18 string musicians matched for age and sex did not show a significant difference in

hearing, the mean difference in the hearing levels at the high (2, 4, and 8 kHz) audiometric frequencies being 1.02 dB (95 per cent confidence interval -2.39 to 4.43). **CONCLUSIONS**—This study showed that there is a potential for occupational hearing loss in classical orchestral musicians. Author.

**Extraparotid Warthin's tumours—report of 10 cases.** van-der-Wal, J. E., Davids, J. J., van-der-Waal I. Department of Oral and Maxillofacial Surgery and Oral Pathology, Free University Hospital, ACTA, Amsterdam, The Netherlands. *British Journal of Oral and Maxillofacial Surgery* (1993) Feb, Vol. 31 (1), pp. 43–4. In the period 1970–1990, 10 cases of extraparotid Warthin's tumours were registered at the Free University Hospital in Amsterdam, The Netherlands. In view of the relatively rare occurrence of these lesions, the clinical data of the patients are reported, together with a discussion on the somewhat controversial subject of extraparotid Warthin's tumours. Author.

**Neurotic excoriations complicating superficial parotidectomy—a case report.** Fardy, M. J. Department of Oral and Maxillofacial Surgery, Morrision Hospital, Swansea. *British Journal of Oral and Maxillofacial Surgery* (1993) Feb, Vol. 31 (1), pp. 41–2. A case is described in which division of the great auricular nerve during parotidectomy was complicated by perichondritis of the ear cartilage following self-inflicted injury. The desirability of preserving the posterior branch of the nerve whenever possible is stressed. Author.

**Reconstruction of the cervical trachea with a free forearm flap.** Yamada, A., Harii, K., Itoh, Y., Kikawada, T., Miyashita, H. Department of Plastic Surgery, Faculty of Medicine, University of Tokyo, Japan. *British Journal of Plastic Surgery* (1993) Jan, Vol. 46 (1), pp. 32–5.

With the aim of voice restoration after repair of a total defect or obstruction of the cervical trachea, we developed a new method of total cervical tracheal reconstruction with a free forearm flap. The forearm flap is inverted to form a tube and then interposed between the subglottic trachea and an adjacent cutaneous fistula created at the upper portion of the tracheostoma. A permanent tracheostoma is preserved, and an L-shaped silicone tube is inserted in the reconstructed cervical trachea and the tracheostoma as a stent. In two patients, both became able to speak. Author.

**An experimental study of delay of flow-through venous flaps.** Ueda, K., Harada, T., Nagasaka, S., Oba, S., Inoue, T., Harashina, T. Department of Plastic and Reconstructive Surgery, Saitama Medical Centre, Saitama Medical School, Japan. *British Journal of Plastic Surgery* (1993) Jan, Vol. 46 (1), pp. 56–60.

A delayed procedure was performed in flow-through venous flaps made in rabbits' ears. Compared with undelayed venous flaps, the delayed flaps at 7, 14 and 21 days after delay showed a distinct increase of survival area. This effect increased with the delay period. Author.

**The arterialized venous flap: experimental studies and a clinical case.** Inada, Y., Fukui, A., Tamai, S., Mizumoto, S. Department of Orthopedic Surgery, Nara Medical University, Japan. *British Journal of Plastic Surgery* (1993) Jan, Vol. 46 (1), pp. 61–7.

It is accepted that small arterialized venous flaps (AVF) can survive on a recipient bed with poor blood supply but survival of larger flaps is not always satisfactory. Possible reasons for this include the flap anatomy, particularly the pattern of the venous network, or factors at the recipient site. To investigate the possible factors in the flap design and the recipient site of an arterialized venous flap, we studied the relationship between (1) size of the artery used to arterialize the flap at the recipient site and the survival rate and (2) the number of draining veins and the survival rate, using rabbit ear skin flap models. Our results suggest that AVFs may become necrotic in the presence of a relative excess of arterial blood inflow, and that two exit veins are more effective than one. We also report a case where a 10 × 15cm sized free AVF harvested from the lower extremity survived on the forearm. Author.

**Subtraction gadolinium enhanced magnetic resonance for head and neck imaging.** Lloyd, G. A., Barker, P. G., Phelps, P. D. Department of Diagnostic Radiology, Royal National Throat, Nose & Ear Hospital, London, UK. *British Journal of Radiology* (1993) Jan, Vol. 66 (781), pp. 12–6.

The subtraction method of Des Plantes has been applied to gadolinium

enhanced magnetic resonance imaging (GdMR). Using short acquisition times, T1 weighted spin echo pulse sequences are made immediately before and after the intravenous administration of gadolinium DTPA. To avoid moving the patient from the scanning tunnel the venipuncture is made into the dorsum of the foot. The needle is placed in the vein prior to putting the patient into the scanner and is irrigated with saline while the control series is obtained. Forty-two patients with naso-sinus or skull base tumours have been successfully investigated by this technique and satisfactory subtraction studies are now obtained on all patients other than the claustrophobic. Subtraction GdMR provides the best demonstration of the effects of gadolinium DTPA on the magnetic resonance signal for both normal and abnormal tissues. The signal recorded on the subtraction image is dependent on tissue blood supply and provides a more accurate record of tumour extent than that shown by unsubtracted GdMR scans. Author.

**Analysis of Epstein-Barr virus in localized nasopharyngeal carcinoma tumors.** Lung, M. L., Sham, J. S., Lam, W. P., Choy, D. T. Department of Microbiology, University of Hong Kong. *Cancer* (1993) Feb 15, Vol. 71 (4), pp. 1190–2.

**BACKGROUND.** An f variant of Epstein-Barr virus (EBV) appears associated with nasopharyngeal carcinoma (NPC) in Southern Chinese. Early diagnosis of the tumour allows the detection of some localized tumors. **METHODS.** A polymerase chain reaction (PCR) assay for genotyping EBV was used to evaluate the presence of the virus in NPC biopsies of local tumors of eight Chinese patients. **RESULTS.** The f variant was detected in the nasopharynx of seven of eight patients. The f variant was present in equal frequency in the 'normal' and tumor regions. **CONCLUSIONS.** Examination of localized NPC tumors by the PCR genotyping assay revealed EBV was present on the tumor side of the nasopharynx in greater quantities than the 'normal' side in seven of eight patients studied. Concurrent infection with both the prototype F and f variant was observed in two of the eight patients investigated. Author.

**Electromyographic study of tensor and levator veli palatini muscles in patients with nasopharyngeal carcinoma. Implications for eustachian tube dysfunction.** Su, C. Y., Hsu, S.P., Chee, C. Y. Department of Otolaryngology, Chang Gung Medical College, Chang Gung Memorial hospital, Kaohsiung, Taiwan, Republic of China. *Cancer* (1993) Feb. 15, Vol. 71 (4), pp. 1193–200.

**BACKGROUND AND METHODS.** To research the pathophysiology of the Eustachian tube (ET), electromyographies (EMG) of the tensor and levator veli palatini muscles (TVP and LVP) in 46 fresh specimens of nasopharyngeal carcinoma (NPC) were studied. **RESULTS.** Sixty-eight percent of the TVP on the symptomatic side had abnormal EMG. Normal EMG recordings were noted in all TVP on the asymptomatic side. The abnormal TVP EMG observed most often was poor interference pattern or decreased interference with swallowing, and not uncommonly, there were some abnormal motor unit action potentials of serrated or large polyphasic waveforms found on motor unit action potentials of serrated or large polyphasic waveforms found on motor unit potential analysis. This is strong evidence of neurogenic abnormality of the TVP caused by the NPC invasion. Despite the large polyphasic or serrated action potentials often being recorded on the symptomatic sides of LVP, the abnormal EMG finding also was found in 12 LVP on the asymptomatic sides. **CONCLUSIONS.** There was no evidence that an ET dysfunction could be caused solely by an abnormal LVP function. This investigation and the study of ET function of these patients demonstrate that functional obstruction induced by the invasion of NPC to the nerve of TVP, rather than mechanical obstruction caused by the tumor mass effects on the ET, gives rise to the ear symptoms and signs of these patients. The authors suggest that the LVP action has little or no role in the function of the ET. Author.

**Retrieval of an aspirated bullet fragment by flexible bronchoscopy in a mechanically ventilated patient.** Fulginiti, J. 3d, Dedhia, H. V., Kizer, J., Timberlake, G. Department of Surgery, West Virginia University Health Science Center, Morgantown 26505. *Chest* (1993) Feb, Vol. 103 (2), pp. 626–7.

We report the case of a 28-year-old man who aspirated a bullet fragment following a gunshot. Review of the literature indicates this to be a rare finding. Bedside flexible bronchoscopy provided visualization of the foreign body and facilitated its removal while the patient was on a ventilator. The benefits of flexible bronchoscopy in similar conditions are discussed. Author.

**Non-Hodgkin's Lymphoma of Waldeyer's Ring.** Chrobok, V., Vanasek, J., Kerekes, Z., Lizler, R. *Ceskoslovenska Otolaryngologie a Foniatrie* (1992); **41**: 267–270 (in Czech).

This is a retrospective study of 55 patients with malignant lymphoma of the head and neck treated at the University Hospital (Charles University) in Hradec Kralove (under Professor Ivan Hybsek) from 1979–1990.

Waldeyer's ring is a rare site of true Hodgkin's lymphoma in contrast to non-Hodgkin's lymphoma and this is reflected in the cases of this study listing only three cases of Hodgkin's lymphoma, against 22 patients of non-Hodgkin's lymphoma. There were 12 men and 10 women in this group, mainly in the fifth to seventh decade of age. Histological classification was based on the Kiel-system of Lennert and there were 9 low-grade and 13 high-grade cases. Clinical staging was based on that of Musshof (see: *Strahlentherapie* 1977; **153**:218–221). Treatment consisted of chemotherapy and radiotherapy, usually combined; but no details are given of the amounts or duration of the treatment. The results appear to be less favourable than those reported in the UK. The average survival rate fluctuated between six to 50 months after the initial diagnosis.

**Preoperative local antibiotic treatment of chronic otitis media.** Hrobon, M., Jedlickova, A., Valvoda, J. *Ceskoslovenska Otolaryngologie a Foniatrie* (1992); **41**: 271–275. (In Czech: from the First ENT-Clinic, Charles University, Prague).

Local preoperative treatment with diluted antibiotics has been successfully employed greatly enhancing the successful outcome of any subsequent surgical treatment of chronic otitis media. The principal antibiotics, all of recognized potency, applied locally in low concentrations were: lincomycin against *Staphylococcus pyogenes*; gentamicin against *Proteus* sp.; colomycin or amikacin against *Pseudomonas aeruginosa*, based on positive cultures and strict sensitivity tests. It is emphasized that there was no evidence of any toxic effect on the function of the inner ear, nor any clinical sign of allergy in the external auditory meatus.

**Normal laryngeal valving patterns during three breath-hold manoeuvres: a pilot investigation.** Martin, B. J., Logemann, J. A., Shaker, R., Dodds, W.J. Department of Communication and Swallowing Disorders, Saint Joseph's Hospital, Atlanta, Georgia 30342-1701. *Dysphagia* (1993), Vol. 8 (1), pp. 11–20.

Synchronized videonasendoscopy and respiratory recordings were conducted in six healthy male subjects to evaluate activity of the arytenoid cartilages, true vocal folds, false vocal folds, and epiglottis during repeated trials of three breath-hold manoeuvres: EASY hold, INHALE HARD hold, and INHALE/EXHALE HARD hold. Five of the six subjects demonstrated maximal laryngeal valving on the HARD breath-hold conditions. One subject showed maximal laryngeal valving on the EASY hold condition, and rarely demonstrated any medial displacement or contact of the laryngeal valves on either effortful breath-hold manoeuvre. Arytenoid approximation and true vocal fold closure were produced consistently by the majority of subjects on all breath-hold manoeuvres, but false vocal fold approximation and anterior arytenoid tilting were accomplished by the majority of subjects only during the effortful breath-hold conditions. Intratrial and intersubject variation indicated that presence or degree of laryngeal valving cannot be assumed during a breath-hold manoeuvre. We conclude that videonasendoscopy has merit in assessing a patient's laryngeal valving ability and progress in effectively using a breath-hold manoeuvre for safe swallowing function. Author.

**Ligaments of the larynx and the adjacent pharynx and oesophagus.** Bosma, J. F., Bartner, H. Department of Pediatrics, University of Maryland School of Medicine, Baltimore. *Dysphagia* (1993), Vol. 8 (1), pp. 23–8.

Two ligament systems of the larynx are demonstrated by dissection. The suspensory ligament of the esophagus is attached to the posterior aspect of the cricoid cartilage and is also a part of the fascial sheath which is common to the hyoid, thyroid, and cricoid. The ligaments at the inner margins of the vocal, ventricular, and aryepiglottic folds are distinctive in site and, inferentially, in function. The aryepiglottic ligaments join at the incisura between the arytenoid cartilages and are continued as the corniculopharyngeal ligament which splays into the flexible tissues in the anterior wall of the hypopharynx, posterior to the suspensory ligament of the esophagus. These ligament systems are involved in two different actions in swallow. The gross superior and anterior motions of the larynx are transmitted to the esophagus by the suspensory ligament, so that the esophagus is elevated in relation to the bolus and is also opened. These esoph-

ageal displacements resemble, in effect, the swallow displacements of the pharyngoesophageal segment and of the constrictor wall of the hypopharynx. The marginal ligaments of the laryngeal folds help to implement the constriction and closure of the larynx during swallow. By anatomical inference, the corniculopharyngeal ligament effects vertical traction within the flexible tissues of the anterior wall of the hypopharynx. Author.

**Swallowing, speech and brainstem auditory-evoked potentials in spasmodic torticollis.** Horner, J., Riski, J. E., Weber, B. A., Nashold, B. S. Jr. Department of Surgery, Duke University Medical Center, Durham, North Carolina 27710. *Dysphagia* (1993), Vol. 8 (1), pp. 29–34.

To explore the controversial 'brainstem theory' of spasmodic torticollis, eight consecutively referred patients were examined. Three independent examinations were conducted on the same day: a video-fluoroscopic barium swallowing examination, an instrumental speech examination, and a brainstem auditory-evoked potential (BAEP) analysis. Swallowing was normal in two patients; speech physiology, in five; and BAEPs, in all. Normal BAEPs refute the brainstem theory, while abnormalities of speech and swallowing temper this conclusion. Several alternative explanations are proposed. Author.

**Cyclic steroid replacement alters auditory brainstem responses in young women with premature ovarian failure.** Elkind-Hirsch, K. E., Wallace, E., Stach, B. A., Jerger, J. F. Department of Medicine, Methodist Hospital, Houston, Texas 77030. *Hearing Research* (1992) Dec, Vol. 64 (1), pp. 93–8.

To determine the independent contributions of estradiol and progesterone to the auditory brainstem response (ABR) latency changes associated with the menstrual cycle, we obtained ABRs on young women with premature ovarian failure who were undergoing cyclic hormone replacement therapy (HRT). We evaluated the influence of cyclic HRT on the ABRs of young women in three controlled phases of the same replacement cycles: 1) no steroid replacement, 2) estrogen-only replacement (E2-only), and 3) estrogen-plus-progesterone replacement (E2-plus-P). A significantly lengthening of wave V peak latency and I–V interpeak interval was found during E2-only replacement. Despite equivalent circulating estradiol levels, both wave V peak latencies and wave I–V interpeak intervals significantly decreased during the E2-plus-P replacement phase as compared to the E2-only replacement phase. These findings are compatible with the hypothesis that estradiol potentiates secretion of the inhibitory neurotransmitter gamma-aminobutyric acid (GABA) at auditory nerve synapses, leading to delayed synaptic conduction time. Progesterone is known to blunt E2-potentiated GABA release and may antagonize its prolongation of wave V latency. Author.

**Chronic intracochlear electrical stimulation in neonatally deafened cats: effects of intensity and stimulating electrode location.** Leake, P. A., Snyder, R. L., Hradek, G. T., Rebscher, S. J. Department of Otolaryngology, University of California, San Francisco 94143. *Hearing Research* (1992) Dec, Vol. 64 (1), pp. 99–117.

An earlier study conducted in this laboratory suggested that chronic intracochlear electrical stimulation at moderate current levels can at least partially delay or prevent the retrograde degeneration of primary auditory (spiral ganglion) neurons that otherwise is progressive after neonatal deafness induced by ototoxic drug administration. Increased survival of spiral ganglion neurons was observed within the basal cochlear region near the stimulating bipolar electrode pairs, while in more apical regions there was no significant difference between the stimulated and control cochleas. The mechanisms underlying this maintenance of spiral ganglion neurons induced by chronic electrical stimulation are uncertain, especially since increased neuronal survival was observed over broader sectors of the ganglion than would be expected to be directly activated by the bipolar electrodes and moderate stimulation intensity (6 dB above electrically evoked auditory brainstem response threshold) used. In this report, data are presented from a second series of neonatally deafened and chronically stimulated cats. The parameters for chronic electrical stimulation were manipulated in two simple ways. First, the intensity of the electrical stimulus was reduced from the earlier study, while the duration of chronic stimulation periods was increased; and secondly, two different intracochlear positions of stimulating electrodes were employed in different experimental groups. Results indicate that electrical stimulation of the cochlea at an extremely low intensity (2 dB above electrically evoked auditory brainstem response threshold) is sufficient to at least partially pre-

vent or delay ganglion cell degeneration in the deafened cochlea. In addition, data suggest a differential distribution of the maintained or conserved ganglion cells, such that when the stimulating electrode pair was positioned near the base of the cochlea increased ganglion survival in a more basal cochlear sector, while stimulation at a more apical site resulted in increased neuronal survival extending to more apical regions. Author.

**External ear resonance as a screening technique in children with otitis media with effusion.** McPherson, B., Smyth, V., Scott, J. Department of Speech and Hearing, University of Queensland, Brisbane, Australia. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 81-9.

External ear resonance can be quickly and accurately measured using real ear insertion gain equipment. It has been previously shown that external ear resonance characteristics are often altered by the presence of middle ear fluid. The external ear resonance characteristics of 84 children with a history of chronic middle ear disorder were determined. Results were compared to other audiological data and otological findings recorded during surgery. External ear resonance peak amplitude was significantly correlated with the presence or absence of middle ear fluid. It was found that peak amplitude of  $>$  or  $=$  24 dB was associated with only 15 per cent of dry ears and peak amplitude of  $<$  or  $=$  22 dB associated with 79 per cent of ears without fluid. The use of external ear resonance measures as a potential screening procedure is discussed. Author.

**Evoked otoacoustic emissions and pure tone threshold audiometry in patients receiving cisplatin therapy.** Zorowka, P. G., Schmitt, H. J., Gutjahr, P. Department for Disorders of Communication, Johannes Gutenberg University, Mainz, FRG. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 73-80.

Eight children and young adults with cancer were evaluated serially using pure tone audiometry as well as registration of click-evoked otoacoustic emissions (EOAE) one day prior to therapy as well as after various numbers of doses of cisplatin. A reduction of EOAE-amplitudes following cisplatin therapy was observed in all patients. This reduction tended to recover after the end of cisplatin administration. Since EOAE are believed to result from cochlear bio-mechanical processes, the reduced emissions are interpreted as signs of cochlear dysfunction. We conclude, that EOAE testing may be a simple, non-invasive method that may detect early, transient functional impairment of hearing due to ototoxic agents such as cisplatin, even in children. Further controlled trials are needed. author.

**Klippel-Feil syndrome with congenital conductive deafness: report of a case and review of literature.** Dubey, S. P., Ghosh, L. M. Department of Otolaryngology, Calcutta National Medical College, India. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 201-8.

Klippel-Feil syndrome is a clinical triad consisting of short neck, decreased head mobility, and low occipital hairline. Additional deformities of the musculoskeletal and the neural system may also be present. Otological defects occur in about one third of these patients. They are seen either unilaterally or bilaterally and accompanied by deafness which may be perceptive, or mixed, or rarely conductive in type. They are caused either by dysplasia of the labyrinth and/or internal auditory canal, or by the middle and the outer ear. We present a report of a case of Klippel-Feil syndrome with congenital conductive deafness. Detailed radiological investigations failed to show any malformations of the middle ear. At operations, thick glue was removed from the middle ear cavities, and dehiscent fallopian canals and bulging of the facial nerve in the tympanic segment were seen. One year postoperatively, audiometry showed a hearing gain of only 20 dB on both sides. Review of the literature shows that there is a trend among the contemporary otologic surgeons to undertake curative surgery whenever possible, so as to improve the hearing, despite isolated reports of various difficulties and complications of curative surgery. Author.

**Juvenile fibromatosis: hormonal receptors.** Maddalozzo, J., Tenta, L. T., Hutchinson, L. R., Crawford, S. E., Morse, D. S. Department of Otolaryngology (Head and Neck Surgery), Rush-Presbyterian, St. Luke's Medical Center, Chicago, IL. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 191-9.

Aggressive juvenile fibromatosis, though allegedly a benign pro-

cess, is as frustrating to manage as it is perplexing to comprehend. The treatment is primarily surgical, with chemotherapy and radiation therapy recently finding support as adjuncts in selected circumstances. Though there is no agreement regarding the etiology of fibromatosis, many have suspected hormonal or traumatic influences. There has been historical, clinical and experimental data demonstrating that fibromatosis seems to be under the influence of estrogen. There have also been anecdotal reports that this tumour has regressed with the use of tamoxifen. To our knowledge, no one has tested these tissues for the presence of estrogen/progesterone receptors. Recently, over a short period of time, we at Children's Memorial Hospital, Chicago, have treated four youngsters for estrogen and progesterone assays. Although these cases were indistinguishable on histologic examination, two of the four exhibited the presence of estrogen/progesterone receptors. We propose, that from these observations, there potentially may be derived a histochemical classification based upon the presence or absence of estrogen/progesterone receptors. This would serve as an added reference in the definition and treatment of this disease. Should hormonal receptors be present, agents such as tamoxifen conceivably could be employed as part of a post-operative maintenance regimen similar to those protocols applied in the management of hormonally responsive breast cancer. Author.

**Secretory otitis media and mastoid air cell development.** Robinson, P. J., Lodge, S., Goligher, J., Bowley, N., Grant, H. R. Ferens Institute of Otolaryngology, University College & Middlesex School of Medicine, London, UK. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 13-8.

Controversy continues over the factors involved in the development of the mastoid air cell system (MACS). This study examines the effect of persistent secretory otitis media with effusion (SOME) on the development of the MACS. Thirty-one children, aged four, were drawn from a cohort of cleft palate children in a multi-centre, prospective otological study set up in 1984. The initial presence of SOME was assessed by otoscopy, tympanometry and bilateral myringotomy, performed under the same anaesthetic as surgical repair of the cleft lip or palate. Only one ear in each child was ventilated with a tube and the other, the control ear, was assessed by regular follow-up otoscopy and tympanometry. The persistence of SOME after palate repair in over 70 per cent of the non-ventilated ears in 4 years olds and the presence of a contralateral ventilated middle ear provides the perfect model for assessing the effect of SOME on MACS development. Plain, lateral mastoid X-rays were assessed by planimetry to give a well accepted measurement of mastoid pneumatization. Nine children were excluded from analysis as they did not meet the strict criteria of one persistently ventilated middle ear and one with persistent SOME. Twenty-two children (44 ears) were available for analysis, nine children were tubed at three months and 13 were tubed at 12 to 16 months. In 19 of the 22 ears the mastoid air cell system was larger on the tubed side. Author.

**Voice problems after pediatric laryngotracheal reconstruction: videolaryngoscopic, acoustic and perceptual assessment.** Smith, M. E., Marsh, J. H., Cotton, R. T., Myer, C. M. Department of Otolaryngology/Head & Neck Surgery, Children's Hospital, Denver, CO80218. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1-3), pp. 173-81.

Children with laryngotracheal stenosis undergo laryngotracheal reconstruction (LTR) to permit tracheostomy decannulation. We conducted voice assessments of eight pediatric LTR patients with voice problems. Perceptual ratings and acoustic measures were taken in five patients and videolaryngoscopy/laryngostroboscopy was conducted in all eight. Results of a perceptual evaluation were abnormal for hoarseness, breathiness and pitch. Acoustic analysis revealed a markedly decreased fundamental frequency of phonation, diminished frequency range, decreased vocal intensity, and shortened maximum phonation time. Videolaryngostroboscopic findings are summarized as follows: two patients had severe glottal insufficiency, three patients had vocal fold asymmetry in stiffness and position, and three patients demonstrated phonation using supraglottal structures. Use of the stroboscope contributed to diagnosis in three of eight patients. Reverse (inhalatory) phonation was observed in three patients. Concomitant articulation problems were exhibited frequently. Sentence production was shortened by the decreased phonatory duration. When coupled with the abnormal voice quality, speech intelligibility was significantly affected. Voice problems following decannulation were observed to persist as a long-term difficulty in some LTR patients. Author.

**T-tubes: a retrospective review of 1274 insertions over a four-year period.** Mangat, K. S., Morrison, G. A., Ganiwalla, T. M. Norfolk and Norwich Hospital, UK. *International Journal of Pediatric Otorhinolaryngology* (1993) Jan, Vol. 25 (1–3), pp. 119–25. One thousand two hundred and seventy four T-tubes were inserted for persistent otitis media with effusion in 661 patients over a four-year period. The peak ages for insertion were between four and seven years, and by 11 years the condition is uncommon. If a tube has not extruded spontaneously after 30 months it becomes increasingly less likely to do so. Complications were persistent perforations (32.6 per cent), tympanosclerosis (23.6 per cent), repeated otorrhoea or tympanic membrane granulations (21 per cent), and impacted wax (10.9 per cent). Forty-eight per cent of patients experienced one or more complication in the study period, and the complication rate increased dramatically in patients whose tubes had remained in situ for longer than 36 months. After this time surgical removal is recommended. Author.

**Transpalatal insertion of radioactive gold grain for the treatment of persistent and recurrent nasopharyngeal carcinoma.** Choy, D., Sham, J. S., Wei, W. I., Ho, C. M., Wu, P. M. Department of Radiotherapy and Oncology, University of Hong Kong, Queen Mary Hospital. *International Journal of Radiation, Oncology, Biology and Physics* (1993) Feb 15, Vol. 25 (3), pp. 505–12.

**PURPOSE:** To evaluate the efficacy of radioactive gold grain implant via the split palate approach in the control of locally recurrent or persistent nasopharyngeal carcinoma. **METHODS AND MATERIAL:** Forty-three patients, 10 for persistent NPC, 28 for first relapse in the nasopharynx, and five for second relapse in the nasopharynx, were treated. The diameter of the tumors at the time of gold grain implant ranged from 0.5 to 5 cm, the number of gold grains inserted varied from 4 to 14, the median number was seven. **RESULTS:** There was no significant difference in the control of the primary tumor for persistent disease (80 per cent at five years), first relapse (61 per cent at five years) and second relapse (80 per cent at three years),  $p = 0.8845$ . The difference in survival between the three subgroups of patients, however, was highly significant ( $p = 0.0040$ ). Thirty patients had CT evaluation before gold grain implant and the tumor was found confined to the nasopharynx in 21, in the remaining nine patients erosion of the sphenoid sinus or other parts of the base of skull was noted. The difference in the control between those patients with tumors confined to the nasopharynx and those patients with extranasopharyngeal extension of tumor almost reached statistical significance (81 per cent and 44 per cent respectively at five years,  $p = 0.0554$ ). For the six patients who developed local recurrence after gold grain implant and were evaluable for the pattern of failure, the recurrent tumors were considered originating from another region of the nasopharynx in four, and in-field failure in the other two cases. **CONCLUSION:** Radioactive gold grain implant as salvage treatment provides satisfactory control of persistent and recurrent nasopharyngeal carcinoma. The local control was better when the tumor was localized to the nasopharynx, thus underlines the importance of close follow-up for early recognition of relapse and persistent tumor. However, such patients still suffered from high incidence of regional and distant failure, the pathophysiology and management of which require further investigation. Author.

**Probable causes of recurrence in patients with chordoma and chondrosarcoma of the base of skull and cervical spine.** Austin, J. P., Urie, M. M., Cardenosa, G., Munzenrider, J. E. Massachusetts General Hospital. *International Journal of Radiation, Oncology, Biology and Physics* (1993) Feb 15, Vol. 25 (3), pp. 439–44.

**PURPOSE:** 141 patients with chordoma and chondrosarcoma of the base of skull and cervical spine were treated with proton and photon irradiation between 1980 and 1989. The local disease was controlled in 111 of these patients. This study reviews the 26 patients who have had their disease recur, and who have evaluable diagnostic studies to examine for probable causes of recurrence. **METHODS AND MATERIALS:** The histologies of the recurrent tumors were 21 non-chondroid chordomas, two chondroid chordomas, and three chondrosarcomas. The prescribed doses ranged from 67 Cobalt-Gray-Equivalent (CGE) to 72 CGE (average of 69 CGE). Doses to small regions of the tumor were deliberately reduced where they abutted certain normal tissues (brain stem, spinal cord, optic chiasm, and optic nerves) in order to keep these structures at acceptance dose levels. The first study, CT or MR scan, on which there was evidence of increase in tumor was carefully evaluated and that volume transferred to the CT scan on which the treatment plan had been devel-

oped. The 3D dose distribution in the region of recurrence was carefully analyzed and a judgement made as to the most probable cause of recurrence. **RESULTS:** Approximately one quarter (6 of 26) of the cases failed in the prescribed dose region. More than half (15 of 26) failed in regions where tumor dose was limited by normal tissue constraints. Approximately 10 per cent of the patients recurred in the surgical pathway and 10 per cent were judged to be marginal misses. **CONCLUSIONS:** Overall, 75 per cent of the patients failed in regions receiving less than the prescribed dose. All tumors which failed in the high dose region had volume greater than 75 cc. Patients with cervical spine disease had a higher rate of recurrence (10 or 26) and larger tumors (average volume of 102 cc) than those with base of skull disease (16 of 115) with an average volume of 63 cc. Author.

**Influence of oral calcium medication on nasal resistance in the nasal allergen provocation test.** Bachert, C., Drechsler, S., Hauser, U., Imhoff, W., Welzel, D. Medical Department of Heinrich-Heine University, Dusseldorf, Germany. *Journal of Allergy and Clinical Immunology* (1993), Feb, Vol. 91 (2), pp. 599–604.

Although calcium has been used for several decades to treat allergic diseases of the skin and respiratory tract, controlled studies demonstrating the action of oral preparations in allergic rhinitis are lacking. This placebo-controlled, double-blind, crossover study shows that 1000 mg calcium administered orally significantly inhibits the allergen-induced swelling of the nasal mucosa in the allergen provocation test. Sneezing and secretion, which are allergic symptoms, were not reduced. This study is the first to confirm the positive effect of oral calcium on a symptom of allergic rhinitis. Author.

**Electron microscopic and immunohistochemical findings in a case of olfactory neuroblastoma.** Du, Z. M., Li, Y. S., Wang, B. F. Department of Pathology, Fourth Military Medical University, Xi'an Shaanxi, People's Republic of China. *Journal of Clinical Pathology* (1993) Jan, Vol. 46 (1), pp. 83–5.

A case of olfactory neuroblastoma is reported. Light microscopic examination showed various arrangements of poorly differentiated tumour cells forming either uniform sheets or convoluted cords of multiple cell layers orientated toward a richly vascular stroma. Electron microscopic examination showed the presence of abundant cytoplasmic filaments and processes, and dense core endocrine vesicles ranging from 100–160 nm in diameter in both the perinuclear region and tumour cell processes. Immunohistochemical staining was positive in most of the tumour cells for neuron specific enolase, and in a few cells for S-100 protein, vimentin, and serotonin, but staining for desmin and keratin produced no reaction. Author.

**Use of antigen expressed in bacteria for detection of EBV-specific thymidine kinase antibodies in sera from patients with nasopharyngeal carcinoma.** Hsu, T. Y., Pai, C. Y., Shieh, S. M., Cho, S. M., Liu, M. Y., Chen, J. Y., Yang, C. S. Graduate Institute of Microbiology, College of Medicine, National Taiwan University, Taipei. *Journal of Medical Virology* (1992) Nov, Vol. 38 (3), pp. 214–9.

Two cDNA clones covering the N- and C-terminal portions of the EBV BXLFl1 open reading frame were selected from a cDNA library derived from P3HR1 cells. The two clones were ligated, the N-terminal untranslated region truncated, and the product inserted into an E. coli expression vector, pET3CP\*. The fusion protein was expressed under control of the T7 phage phi 10 gene promoter and shown to possess thymidine kinase activity. The protein was then used as an antigen to detect antibody reactivities in serum samples of nasopharyngeal carcinoma patients and healthy blood donors. Using a 1:400 dilution of serum samples in Western blot analyses, it was possible to differentiate the reactivities of serum IgA of NPC patients and healthy donors. The prevalence of positive reactivity to EBV TK in NPC was around 84 per cent. The test was compared to others used for early diagnosis of NPC and was able to detect some patients who were negative in those tests. Author.

**Spontaneous temporal encephalocele. Case report.** Wilkins, R. H., Radtke, R. A., Burger, P. C. Division of Neurosurgery, Duke University Medical center, Durham, North Carolina. *Journal of Neurosurgery* (1993) Mar, Vol. 78 (3), pp. 492–8.

The authors report a 36-year-old woman with a 23-year history of simple and complex partial seizures who was treated surgically for an anteroinferior temporal encephalocele, with resolution of the

seizure disorder. This patient's presentation, findings, and response to treatment are typical of those associated with anteroinferior temporal encephalocele, and different from the clinical patterns of four other types of spontaneous temporal encephalocele. Author.

**Antibody response to outer membrane protein of nontypeable *Haemophilus influenzae* in otitis-prone children.** Yamanaka, N., Faden, H. Department of Otolaryngology, Sapporo Medical College, Japan. *Journal of Pediatrics* (1993) Feb, Vol. 122 (2), pp. 212–8.

One of the major outer membrane proteins of nontypeable *Haemophilus influenzae*, P6, is highly conserved among strains, serves as a target for bactericidal antibody, and has been proposed as a possible vaccine candidate. The serum antibody response to P6 was studied in otitis-prone and normal children by an enzyme-linked immunosorbent assay. Of 20 otitis-prone children, 12 (60 per cent) had a serum IgG antibody response to P6 after otitis media; however, the mean acute antibody level for the group, 4.6 micrograms/ml, was not significantly different from the convalescent level, 5.4 micrograms/ml. Anti-P6 antibody levels were also measured longitudinally for 10 to 25 months in 30 otitis-prone and 13 healthy children. Antibody levels increased seven-fold in the normal group compared with less than three-fold for the otitis-prone group and were significantly higher in the normal children after the age of 18 months ( $P < 0.05$ ). Finally, otitis-prone children who had two or more episodes of otitis media with nontypeable *H. influenzae* did not have an anamnestic antibody response to P6. The failure to recognize P6 as a specific immunogen may account for recurrent infections. Moreover, the data suggest that otitis-prone children may not respond adequately to a vaccine containing P6. Author.

**Audiometric evaluation of prosthetic ears: a preliminary report.**

Reisberg, D. J., Lipner, M. Department of Pediatrics, University of Illinois, College of Medicine and College of Dentistry, Chicago. *Journal of Prosthetic Dentistry* (1993) Feb, Vol. 69 (2), pp. 196–9. A pilot study was conducted to measure the acoustic change provided by a prosthetic ear and to determine whether this change is functionally significant. Four subjects with acquired loss of the ear were tested. Objective data confirmed that the prosthesis provided acoustic gain. This gain may be significant only for individuals with a preexisting hearing loss. Author.

**Mucosal tenting suture with stenting in the treatment of chronic laryngotracheal stenosis.** Lee, S. Y. Department of Otolaryngology, College of Medicine, National Taiwan University, Taipei, Republic of China. *Journal of Trauma* (1993) Jan, Vol. 34 (1), pp. 8–16.

A surgical technique of laryngotracheoplasty with long-term stenting was employed exclusively in the treatment of 105 patients with laryngotracheal stenosis in the Department of Otolaryngology, National Taiwan University Hospital from May 1977 to April 1989. The results were satisfactory, 92 per cent of the treated patients being decannulated. The technique of laryngotracheoplasty can be summarized as follows: (1) Exposure of the stenotic region by laryngofissure, anterior and/or posterior cricoid splitting, vertical tracheal incision; (2) debridement of infected soft tissue; (3) relaxation or displacement of heavy scar tissue; (4) placement of sutures to tent the laryngotracheal mucosal remnants to the extraluminal region; (5) insertion of an endolaryngotracheal stent using a silicone T tube; (6) closure of the skin layer of the surgical wound only, without approximating the soft tissue layer between the T tube and skin; and (7) leaving the stent in place for at least 6 months. Author.

**Association of human papillomavirus with nasal neoplasia.** Wu, T. C., Trujillo, J. M., Kashima, H. K., Mounts, P. Department of Immunology and Infectious Diseases, Johns Hopkins University School of Hygiene and Public Health, Baltimore, MD 21205. *Lancet* (1993) Feb 27, Vol. 341 (8844), pp. 522–4.

Since HPV-57b has been identified by two different techniques in benign, premalignant, and malignant lesions of the nasal cavity, but not in cases of chronic sinusitis, HPV-57 should be recognized as at least a co-factor in the aetiology of nasal neoplasia. Paraffin sections of 22 histologically confirmed nasal tumours were screened by in-situ hybridization with riboprobes specific for HPV-57b. Virus was demonstrated in 6 of 7 fungiform papillomas, 6 of 8 inverted papillo-

mas, 1 of 3 inverted papillomas with dysplasia, and 2 of 4 inverted papillomas with carcinoma. The presence of HPV-57b was confirmed with the polymerase chain reaction, which identified an additional four positive samples, bringing the total to 86 per cent positive specimens. The results underscore the importance of HPVs in the aetiology of cancers at extragenital sites. Author.

**Cefaclor AF in the treatment of streptococcal pharyngitis/tonsillitis.** Derriennic, M., Voi, M., Thoren, L. M., Black, S. A., Dere, W. H. Eli Lilly France, Saint Cloud. *Postgraduate Medical Journal* (1992) Vol. 68 Suppl 3, pp. S43–6; discussion S46–8.

Two double-blind, double-dummy, randomized multicentre studies compared the safety and efficacy of 10-day regimens of cefaclor advanced formulation (cefaclor AF) (375 mg twice daily) with cefaclor (250 mg three times daily) in the treatment of proven group A beta-haemolytic streptococcal pharyngitis/tonsillitis. Of the 1,138 patients enrolled, 764 (cefaclor AF:392; cefaclor: 372) were evaluated for efficacy. All patients enrolled in the studies (570 treated with cefaclor AF and 568 treated with cefaclor) were evaluated for safety. Clinical and bacteriological evaluations were performed on treatment days 4–6, and after completion of treatment within 3–5 days and 2–3 weeks. In evaluable patients, the post-therapy clinical success and bacteriological cure rates for cefaclor AF were 96.7 per cent and 93.6 per cent, respectively; the rates were 98.1 per cent and 94.1 per cent for cefaclor. Sixteen cefaclor AF-treated patients and 14 cefaclor-treated patients withdrew early from the trial because of adverse events. There were no significant differences between treatment groups in the overall number of adverse events reported. Diarrhoea was the most frequently reported adverse event (5.6 per cent) in cefaclor AF-treated patients, and headache/migraine was the most frequently reported adverse event (5.6 per cent) in the cefaclor-treated patients. Cefaclor AF (375 mg twice daily) is as effective and safe as cefaclor capsules (250 mg three times daily) in the treatment of streptococcal pharyngitis/tonsillitis. Author.

**Transnasal endoscopic closure of anterior fossa cerebrospinal fluid fistula.** Handley, G. H., Goodson, M. A., Real, T. H. Department of Otolaryngology, AMI Brookwood Medical Center, Birmingham, AL 35209. *Southern Medical Journal* (1993) Feb, Vol. 86 (2), pp. 217–9.

The anterior skull base can be approached intranasally, and the development of endoscopes and accompanying endoscopic instruments in recent years makes possible extremely precise and defined work along the ethmoid and sphenoid sinus roof. Since these areas are the most frequent locations of anterior skull base CSF rhinorrhoea, it follows that the localization and subsequent closure of these defects theoretically can be accomplished in this manner. Our report and others show that closure of CSF leaks can be accomplished successfully using this procedure, with minimal morbidity and at a fraction of the cost of frontal craniotomy. In our opinion, this should become the initial procedure of choice for closure of anterior fossa CSF leaks in amenable cases. Author.

**Clinical validation of functional flexion/extension radiographs of the cervical spine.** Dvorak, J., Panjabi, M. M., Grob, D., Novotny, J. E., Antinnes, J. A. Department of Neurology, Spine Unit of Schulthess Hospital, Zurich, Switzerland. *Spine* (1993) Jan, Vol. 18 (1), pp. 120–7.

The aim of this study was to determine the clinical validity of functional flexion/extension radiographs of the cervical spine in a defined patient population. Sixty-four adults with functional disorders of the cervical spine underwent passive flexion/extension radiographic examinations. The radiographs were analyzed using a computer assisted method to calculate segmental motion parameters, such as rotations, translations, and centers of rotation. The patients were separated into three groups based on their specific functional disorders, and their motion parameters were compared with those of a healthy population. The three groups consisted of patients with degenerative changes, those with radicular syndrome, and those with whiplash trauma. Most of the patients displayed trends toward hypomobile segmental motion. This trend is displayed more substantially in the groups with degeneration and radicular syndrome. Hypomobility in segmental rotation was significant at C6–C7 for the degenerative and radicular groups. The trauma group showed trends toward hypermobility in the upper and middle cervical levels, and the locations of the centers of rotation were shifted in

the anterior direction when compared with those of the healthy population. Author.

**Use of the greater omentum for treatment and prophylaxis of anastomotic and stump dehiscence in major airway surgery.** Muller, L. C., Abendstein, B., Salzer, G. M. Department of Surgery II, University of Innsbruck, Austria. *Thoracic & Cardiovascular Surgery* (1992) Dec, Vol. 40 (6), pp. 323–5.

In six patients suffering from anastomotic dehiscence following bronchoplastic procedures of the central airways or from acute bronchial stump fistula following pneumonectomy, the therapeutic efficiency of omentopexy in the management of the fistula was investigated. In five other patients with an increased risk of anastomotic leakage after sleeve pneumonectomy or pneumonectomy with carinal resection the omentum was effectually used to prevent such complication. Four out of five evaluable patients had successful

treatment of the anastomosis and stump fistula. Complications arising from the additional laparotomy were not observed. Author.

**Eosinophilic granuloma of the cervical and thoracic spine in a child.** St John, M. A., Clarke, H., Clarke, V., Seale, W., De Caires, G. Department of Paediatrics, Queen Elizabeth Hospital, Bridgetown, Barbados. *West Indian Medical Journal* (1992) Dec, Vol. 41 (4), pp. 166–8.

A case of eosinophilic granuloma affecting a cervical vertebra, thoracic vertebra and pelvis in a child is reported. We present this case because multifocal eosinophilic granuloma lesions of the spine are rare and can present as this case did with both diagnostic and therapeutic problems. Preoperative diagnosis may be made by X-ray, isotope bone scan and needle biopsy, avoiding unnecessary surgical intervention. Author.