

## Abstract selection

During the course of last year, a series of abstracts were selected and published by this Journal but to do this required the permission of other editors, parent associations and publishers. We are extremely grateful to all of them and for their kindness in allowing us to publish the abstracts verbatim, and thereby provide what we hope has been a worthwhile and valuable service and one upon which we hope to build over the coming year. Permission was given by 105 journals and some 323 abstracts were published in the twelve month period. A list of the journals is given below and without the co-operation of their editors and publishing houses, this service would not have been possible and we are most grateful to them.

- Acta Neurologica Scandinavica (Munksgaard International Publishers)  
Alabama Medicine (Medical Association of the State of Alabama USA)  
Allergy (Munksgaard International Publishers Limited)  
Allergy Proceedings (New England and Regional Allergy Proceedings) (Official Journal of Regional and State Allergy Societies)  
American Dental Association Journal (American Dental Association)  
American Journal of Diseases of Children (American Medical Association)  
American Journal of Gastroenterology (Official Journal of the American College of Gastroenterology)  
American Journal of Hematology (Alan R. Liss Inc., Publishers)  
American Journal of Human Genetics (University of Chicago Press)  
American Journal of Industrial Medicine (Alan R. Liss Inc., Publishers)  
American Journal of Medical Genetics (Alan R. Liss Inc., Publishers)  
American Journal of Neuro-Radiology (Williams and Wilkins)  
American Journal of Orthodontics and Dento-Facial Orthopaedics (C.B. Mosby Co.)  
American Journal of Roentgenology (Williams & Wilkins)—American Roentgen Ray Society  
American Journal of Surgery (Cahners Publishing Co. Inc. Medical-Health Care Group)  
Anaesthesia (Journal of the Association of Anaesthetists of Great Britain and Ireland)  
Anesthesia and Analgesia (International Anesthesia Research Society)—Elsevier Science Publishing Co. Inc.  
Anesthesiology (J.B. Lippincott Co.)  
Annals of Emergency Medicine (American College of Emergency Physicians)  
Annals of Plastic Surgery  
Archives of Environmental Health (Heldref Publications)  
Archives of Internal Medicine (American Medical Association)  
Archives of Ophthalmology (American Medical Association)  
Archives of Pathology and Laboratory Medicine (American Medical Association)  
Archives of Surgery (American Medical Association)  
Audiology (Journal of Auditory Communication—Official Organ of the International Society of Audiology)—S. Karger  
Aviation, Space and Environmental Medicine (Aerospace Medical Association)  
Brain Research (Elsevier Science Publications)  
British Journal of Cancer (Cancer Research Campaign)  
British Journal of Oral and Maxillofacial Surgery (Churchill Livingstone Medical Journals)  
British Journal of Plastic Surgery (British Association of Plastic Surgeons)—Churchill Livingstone Medical Journals  
British Journal of Radiology (British Institute of Radiology)  
British Journal of Surgery (Butterworth Scientific Limited)  
British Medical Bulletin (Churchill Livingstone Medical Journals)  
Cancer (J.B. Lippincott Co.)  
Cancer Treatment Reviews (Academic Press Inc. [London] Ltd.)  
Chest (American College of Chest Physicians)  
Cleft Palate Journal (American Cleft Palate Association)  
Clinical Allergy and Immunology (Blackwell Scientific Publications Ltd.)  
Clinical Genetics (Munksgaard International Publishers Ltd.)  
Clinical Nephrology (Dustri-Verlag)  
Clinical Nuclear Medicine (J.B. Lippincott Co.)  
Clinical Orthopaedics and Related Research (J.B. Lippincott & Co.)  
Clinics in Plastic Surgery (W.B. Saunders Co.)  
Clinical Science (The Medical Research Society & The Biochemical Society)  
Critical Care Medicine (Society of Critical Care Medicine) Williams and Wilkins  
Developmental Medicine & Child Neurology (Spastics Society) Mac Keith Press  
Drug Intelligence and Clinical Pharmacology (Harvey Whitney Books)  
Drug Research (Arzneimittel-Forschung)  
Ear and Hearing (American Auditory Society)—Williams and Wilkins  
European Journal of Surgical Oncology (Academic Press Inc. [London] Ltd.)  
Indian Journal of Leprosy (Quarterly Scientific Journal of the Hinde Kusht Nivaran Sangh)  
Indian Journal of Medical Research  
Indian Journal of Pathology and Microbiology (Indian Association of Pathologists and Microbiologists)  
Infection (MMV Medizin Verlag)  
International Journal of Pediatric Otorhinolaryngology (Elsevier Science Publishers)  
International Journal of Radiation Oncology, Biology and Physics (Pergamon Press Limited)  
Israel Journal of Medical Sciences  
Japanese Journal of Clinical Oncology (Foundation of Clinical Oncology—National Cancer Centre)  
Journal of the Acoustical Society of America (American Institute of Physics)  
Journal of Allergy and Clinical Immunology (American Academy of Allergy and Immunology)—C.V. Mosby Co.  
Journal of the American Geriatric Society (Elsevier)  
Journal of Biomedical Engineering (Biology Engineering Society)—Butterworth Scientific Ltd.  
Journal of Bone & Joint Surgery—British Volume (British Editorial Society of Bone and Joint Surgery)  
Journal of Burn Care and Rehabilitation (J.B.C. Publishing Inc.)  
Journal of Clinical Pathology (British Medical Association)  
Journal of Dermatologic Surgery and Oncology  
Journal of Endocrinological Investigation (Italian Society of Endocrinology)—Editrice Kurtis  
Journal of Indian Council of Medical Research  
Journal of Infectious Diseases (Infectious Diseases Society of America)—University of Chicago Press  
Journal of Medical Engineering and Technology (Taylor and Francis Ltd.)  
Journal of Neurological Sciences (Edizioni Minerva Medica)  
Journal of Neurology, Neurosurgery and Psychiatry (British Medical Association)  
Journal of Neurosurgery (American Association of Neurological Surgeons)

Journal of Occupational Medicine  
 Journal of Oral & Maxillofacial Surgery (W.B. Saunders)  
 Journal of Radiology/Journale de Neuroradiologie (Societe de  
 Publication de Periodique International a Francais)  
 Journal of Pediatrics (C.V. Mosby Co.)  
 Journal of Prosthetic Dentistry (C.V. Mosby Co.)  
 Journal of The Royal Naval Medical Service (Institute of Naval  
 Medicine)  
 Journal of Speech and Hearing Research (American Speech-Lan-  
 guage-Hearing Association)  
 Journal of Tropical Medicine and Hygiene (Blackwell Scientific  
 Publications Ltd.)  
 Medical Journal of Australia (Journal of the Australian Medical  
 Association)  
 Neurosurgery (Journal of the Congress of Neurological  
 Sciences)—Williams and Wilkins  
 New York State Journal of Medicine (Medical Society of the State  
 of New York)  
 Oral Surgery, Oral Medicine, Oral Pathology (C.V. Mosby Co.)  
 Pediatrics (American Academy of Pediatrics)  
 Pediatric Emergency Care (Williams and Wilkins)  
 Pediatric Infectious Diseases (Williams and Wilkins)  
 Pharmatherapeutica (Clayton-Wrey Publications Ltd.)  
 Postgraduate Medical Journal (Fellowship of Postgraduate Medi-  
 cine)—Macmillan Press Ltd.  
 Public Health Reports (Official Journal of the US Public Health  
 Services)  
 Radiographics (Radiological Society of North America)  
 Radiology (Radiological Society of North America)  
 Retina (Journal of Retinal and Vitreous Diseases)—J.B. Lippin-  
 cott Co.  
 Reviews of Infectious Diseases (Infectious Diseases Society of  
 America)—University of Chicago Press  
 Scandinavian Audiology (Scandinavian Audiological Society)—  
 Almqvist and Wiksell International  
 South African Medical Journal (Medical Association of South  
 Africa)  
 South African Journal of Communicative Disorders (South  
 African Speech and Hearing Association)  
 Southern Medical Journal (Southern Medical Association)  
 Thoracic & Cardiovascular Surgery (George Thieme. Verlag)  
 Toxicology (Elsevier)  
 West Indian Medical Journal (University of the West Indies)

The following journals have been *excluded* as it is anticipated that subscribers/readers will already have access to them and will con-  
 sult them regularly.

ACTA OTO-RHINOLARYNGOLOGICA BELGICA  
 ACTA OTO-LARYNGOLOGICA (Stockholm)  
 ADVANCES IN OTO-RHINO-LARYNGOLOGY  
 AMERICAN JOURNAL OF OTOTOLOGY  
 AMERICAN JOURNAL OF OTOLARYNGOLOGY  
 ANNALES D'OTO-LARYNGOLOGIE  
 ANNALS OF OTOTOLOGY, RHINOLOGY AND LARYNGOLOGY  
 ARCHIVES OF OTOLARYNGOLOGY—HEAD AND NECK SURGERY  
 ARCHIVES OF OTORHINOLOGARYNGOLOGY  
 AURIS, NASUS, LARYNX  
 BRITISH JOURNAL OF AUDIOLOGY  
 CLINICAL OTOLARYNGOLOGY  
 EAR, NOSE AND THROAT JOURNAL  
 H.N.O.  
 IL VALSALVA  
 INDIAN JOURNAL OF OTOLARYNGOLOGY  
 JOURNAL OF OTOLARYNGOLOGY  
 LARYNGOLOGIE, RHINOLOGIE, OTOLOGIE  
 LARYNGOSCOPE  
 OTOLARYNGOLOGY—HEAD AND NECK SURGERY  
 OTOLARYNGOLOGIC CLINICS OF NORTH AMERICA  
 ORL—JOURNAL OF OTO-RHINO-LARYNGOLOGY AND ITS RELATED  
 SPECIALITIES  
 PAKISTAN JOURNAL OF OTOLARYNGOLOGY  
 REVUE DE LARYNGOLOGIE, OTOLOGIE ET RHINOLOGIE  
 RHINOLOGY  
 VESTNIK OTORINOLARYNGOLOGII

**Preliminary clinical results with low flip angle spin-echo MR imag-  
 ing of the head and neck.** Chisin, R., Buxton, R. B., Ragozzino,  
 M. W., Beaulieu, P. A., Fabian, R. L., Brady, T. J. Department of  
 Radiology, Massachusetts General Hospital, Boston 02114.

*American Journal of Neuro-Radiology* 1989 Jul–Aug, Vol. 10 (4).  
 pp. 719–24.

A new approach for producing primarily T2- and proton-density-  
 weighted MR images in less time than the conventional long TR,  
 long TE imaging is to reduce the TR of a double spin-echo pulse  
 sequence and to also reduce the RF excitation flip angle to mini-  
 mize the resulting T1 sensitivity. In preliminary studies with a  
 human volunteer and five patients with various diseases of the head  
 and neck, conventional long TR, long TE and short TR, short TE  
 images were compared with short TR, long TE images with  
 reduced flip angles (45 degrees, 30 degrees), which required only  
 40 per cent of the imaging time of the long TR images. The latter  
 images showed a similar contrast pattern to the conventional T2-  
 weighted image, and contrast-to-noise measurements indicated an  
 increase in contrast between the lesion and nearby tissue when the  
 flip angle was reduced. Furthermore, the maximum contrast/noise  
 per unit imaging time on the short TR, long TE image was compar-  
 able to that on the long TR, long TE image. Optimization of the flip  
 angle with short TR allows a substantial reduction in imaging time,  
 but with a reduction in multislice capability. This technique will be  
 most useful in areas of complex anatomy where two or more ortho-  
 gonal imaging planes are required, such as the head and neck.  
 Author.

**Percutaneous transnasal sphenoidotomy with sphenoid window.**  
 Towbin, R. B., Myer, C. M., Thompson, R. F. Department of  
 Radiology, Children's Hospital Medical Center, Cincinnati, OH.  
*American Journal of Neuro-Radiology* 1989 Jul–Aug, Vol. 10 (4).  
 pp. 845–7.

Ten percutaneous transnasal sphenoidotomies were performed in  
 nine children; and in seven, a sphenoid window was also created.  
 All procedures were performed in the special procedures labora-  
 tory, with biplane fluoroscopic guidance used in each case. Under  
 general anaesthesia, with the child in the supine position, a 14-  
 gauge antral trocar was placed transnasally into the sphenoid sinus.  
 The sinus was aspirated and material was obtained for culture. A  
 Takahashi forceps was placed via the same tract into the sphenoid  
 sinus. The cusps were centered across the anterior cortex, and  
 under fluoroscopic visualization, opened and rotated 360 degrees,  
 creating a sphenoid window. All procedures were completed with-  
 out complication, and no child required further surgery. Author.

**MR imaging of middle cranial fossa arachnoid cysts: temporal lobe  
 agenesis syndrome revisited.** Robertson, S. J., Wolpert, S. M.,  
 Runge, V. M. Department of Radiology, New England Medical  
 Center, Boston, MA 02111. *American Journal Neuro-Radiology*  
 1989 Sep–Oct, Vol. 10 (5), pp. 1007–10.

MR studies in eight patients with extra-axial arachnoid cysts in the  
 middle cranial fossa were reviewed in order to identify any associ-  
 ated structural defect in the ipsilateral temporal lobe. The study  
 was prompted by the original theory that agenesis of the temporal  
 lobe is the primary factor in the development of these cysts.  
 Authors of subsequent studies proposed that the cysts are a conse-  
 quence of embryological malformation of the meninges only and  
 that the adjacent temporal lobe is compressed. Our findings sug-  
 gest that middle cranial fossa cysts are associated with temporal  
 lobe hypogenesis, and also that compression of the temporal lobe is  
 an infrequent accompaniment. Author.

**Treatment of croup. A critical review.** *American Journal of Diseases  
 of Children* 1989 Sep, Vol. 143 (9), pp. 1045–9.

Although viral croup is the most common form of airway obstruc-  
 tion in children six months to six years of age, there is debate  
 regarding medical care for the hospitalized patient. A complete  
 review of the English-language literature from 1960 to 1988 was  
 performed, using both manual and Medline searches. Critical  
 review shows that laryngotracheitis and spasmodic croup, pre-  
 viously emphasized in the literature as having distinct etiologies,  
 most likely are two ends of a broad spectrum in the clinical presen-  
 tation of a single disease. Critical assessment of all prospective ran-  
 domized double-blind placebo-controlled trials reported during  
 the study period shows that there is little information on the use of  
 humidified air or supplemental oxygen, that racemic epinephrine  
 hydrochloride is of well-demonstrated efficacy, and that dexametha-  
 sonone phosphate at a dose greater than 0.3 mg/kg is effective in  
 decreasing the length and severity of respiratory symptoms associ-  
 ated with viral croup. Author.

**Laryngeal mask anaesthesia for repair of cleft palate.** Beveridge,

M. E. Department of Anaesthesia, Royal Infirmary, Aberdeen. *Anaesthesia* 1989 Aug, Vol. 44 (8), pp. 656–7.

A method of anaesthesia for repair of cleft palate is described. The baby had Pierre Robin syndrome and tracheal intubation had proved to be impossible. Author.

**Short trachea, a hazard in tracheal intubation of neonates and infants: syndromal associations.** Wells, A. L., Wells, T. R., Landring, B. H., Cruz, B., Galvis, D. A. Division of Anesthesiology, Shriners Hospital for Crippled Children, Los Angeles, California 90020. *Anesthesiology* 1989 Sep, Vol. 71 (3), pp. 367–73.

Short trachea results from reduction in number of tracheal cartilage rings to 15 or fewer from normal mean of 17 rings in infants. In a review of radiologic and pathologic data, the thoracic vertebral level of tracheal bifurcation as seen in anteroposterior chest radiographs of infants with congenital malformations, cardiovascular anomalies, and skeletal dysplasias, was compared with numbers of tracheal cartilage demonstrated in postmortem specimens. Increased frequency of short trachea was seen in patients with DiGeorge anomaly (77 per cent), skeletal dysplasias (55 per cent), brevicolis (57 per cent), diaphragmatic rubella (40 per cent), and patients with congenital heart disease who did not have DiGeorge anomaly (36 per cent, with range 25–83 per cent for different types, the highest, 83 per cent, being interrupted aortic arch). Preintubation high kilo-voltage chest radiographs to establish the level of tracheal bifurcation in patients with increased risk of short trachea can be helpful in avoiding bronchial intubation and its complications. Postintubation chest films to assure the level of the endotracheal tube tip should be considered for such patients. Growth in length of the trachea with age is accomplished both by increase in size of tracheal cartilage rings and interring membranes, and by increase in ring number. Author.

**Subcutaneous V–Y advancement flap for closure of nasal tip defect.** Hauben, D. J. Department of Plastic Surgery, Beilinson Medical Center, Petah Tikva, Israel. *Annals of Plastic Surgery* 1989 Sep, Vol. 23 (3), pp. 239–44.

Our experience with V–Y subcutaneous flaps for nasal tip closure after tumor resection in 10 patients is reported. This method has distinct advantages over previously used methods such as skin graft, rotation, or transposition flap. It allows primary closure of recipient and donor site without the formation of dog-ear or trap-door deformity. It is easy to design, reliable, and offers good cosmetic results. This method is performed under local anesthesia as an office procedure. It is recommended to plastic surgeons for the closure of nasal tip defects. Author.

**Effects of unilateral naris closure on the olfactory epithelia of adult mice.** Maruniak, J. A., Lin, P. J., Henegar, J. R. Department of Biological Sciences, University of Missouri, Columbia 65211. *Brain Research* 1989 Jun 26, Vol. 490 (2), pp. 212–8.

This study demonstrates, for the first time, that prolonged unilateral breathing can be harmful to the adult olfactory epithelium. Mice at least five months old had one naris closed by cautery and suture. These were divided into five groups of 10 mice which had unilateral naris closure for one, three, six, eight or 12 weeks. A control group of 10 mice was untreated. Variables that were assessed included the thicknesses and number of cells spanning olfactory epithelia in hematoxylin and eosin stained paraffin sections. Olfactory marker protein (OMP) immunohistochemistry was used to further visualize the differential impact of naris closure on the two sides of the nose. Unilateral naris closure for six weeks or longer caused dramatic losses of olfactory receptor cells in the rostral third of the open-side olfactory epithelia, but did not affect numbers of cells in caudal regions or on the closed sides. The thicknesses of the open and closed-side olfactory epithelia were significantly different for only the eight week closure group. In most mice with unilateral naris closure for longer than six weeks there was little or no staining of the olfactory receptor neurons or their axon bundles for OMP in the affected regions of the open side. Author.

**Failure of tonsil and nose surgery in adults with long-standing severe sleep apnea syndrome.** Aubert Tulkens, G., Hamoir, M., Van den Eeckhaut, J., Rodenstein, D. O. Unite d'Explorations Electrophysiologiques du Systeme Nerveux, Cliniques Universitaires St Luc, Brussels, Belgium. *Archives of International Medicine* 1989 Sep, Vol. 149 (9), pp. 2118–21.

Seven adult patients with a severe form of sleep apnea syndrome (mean apnea index, 47) underwent surgery for significant struc-

tural abnormalities at nose and/or throat level (septal deviation, turbinal hypertrophy, enlarged tonsils, long uvula, pharyngeal tumor). Although a subjective benefit was claimed by most patients, the polygraphic data showed no improvement or only a modest improvement in breathing pattern, oxyhemoglobin saturation, or general sleep architecture except in one patient. In this patient the evolution of the syndrome was recent (three years) and surgical management of a parapharyngeal tumor resulted in a cure. We conclude that in adults with sleep apnea syndrome of long-standing, surgical correction of nasal or pharyngeal abnormalities should not be expected to normalize sleep and breathing. This contrasts with the known benefits achieved by the same type of surgery in children. Surgery might nevertheless be necessary in some adults to permit the application of other therapeutic means (ie, nasal continuous positive airway pressure). Author.

**Performance and well-being under tilting conditions: the effects of visual reference and artificial horizon.** Rolnick, A., Bles, W. Motion sickness and Human Performance Laboratory, Israeli Naval Hyperbaric Institute, Haifa. *Aviation, Space and Environmental Medicine* 1989 Aug, Vol. 60 (8), pp. 779–85.

It is generally agreed that the incidence of motion sickness in sailors working below deck is higher than in sailors who have the horizon as a visual reference on the bridge. This study investigated the possible beneficial effect of a projected artificial horizon as a means to prevent seasickness. Twelve subjects were exposed to angular motion in a tilting room under three experimental conditions: a) With the windows covered, allowing no visual reference from the outside world; b) With the windows uncovered, thus allowing a partial view of the environment; and c) With the windows covered and a horizon projected on the walls by a rotating laser beam. Subjects were exposed for 35 min in each condition while performing different computerized tasks. There was a reduction in well-being and performance as a function of exposure time. These effects were clearly shown in the 'closed cabin' condition. There were less motion sickness symptoms in the 'artificial horizon' and 'window' conditions. The presence of a visual reference prevented the decrement in performance found in the 'closed cabin' condition. The results of this study suggest that a projected horizon might alleviate motion sickness aboard naval vessels; and thus improve the performance of sailors at sea. Author.

**A study of proteins in the auditory system of rabbits using two-dimensional gels: identification of glial fibrillary acidic protein and vitamin D-dependent calcium binding protein.** Winsky, L., Harvey, J. A., McMaster, S. E., Jacobowitz, D. M. Laboratory of Clinical Science, National Institute of Mental Health, Bethesda, MD 20892. *Brain Research* 1989 Jul 24, Vol. 493 (1), pp. 136–46.

Two-dimensional gel electrophoresis and computerized optical densitometry were employed to compare the relative content of proteins across major auditory brain regions in rabbits. Areas examined included the dorsal and ventral cochlear nuclei which receive the primary afferents from the organ of Corti, the lateral superior olivary nucleus which has strong reciprocal relationships with the cochlear nucleus, and the successively more rostral projections of the auditory pathways to inferior colliculus, medial geniculate and auditory cortex. Twelve proteins demonstrated significant decreases and five proteins significant increases in content at successively more rostral levels of the auditory system, including two proteins which were highly localized to the cochlear nuclei and two proteins greatest in amounts in the auditory cortex. One protein which was localized to the cochlear nuclei and lateral superior olive (molecular weight (MW) = 50.3, isoelectric point (pI) = 5.7) was identified as the glial fibrillary acidic protein by reaction of specific antisera on blots. Antisera to the vitamin D-dependent calcium binding protein reacted specifically with one protein (MW = 27.2, pI = 4.8) which was greatest in amount in the lateral superior olive (LSO) versus other auditory regions examined. The significance of these findings rests in the potential for identifying specific markers for cellular elements that are important in auditory function and which might be lost as a consequence of developmental abnormalities or other traumas. Author.

**Induction of malignant nasal cavity tumours in Wistar rats fed Chinese salted fish.** Yu, M. C., Nichols, P. W., Zou, X, N, Estes, J., Henderson, B. E. Department of Preventive Medicine, University of Southern California School of Medicine, Los Angeles 90033. *British Journal of Cancer* 1989 Aug, Vol. 60 (2), pp. 198–201.

Epidemiological evidence has implicated Chinese salted fish as a

human nasopharyngeal carcinogen. In the present study, 221 Wistar-Kyoto rats aged 21 days were randomly assigned to one of three experimental groups. Rats in group 1 (high dose group) were fed a powder diet of one part Chinese salted fish to three parts certified rat chow during the first 18 months. Similarly, rats in group 2 (low dose group) were fed a powder diet of one part salted fish to five parts rat chow for 18 months. Rats in group 3 were given rat chow only throughout the three-year experiment. Four malignant tumours of the nasal cavity were observed among rats fed the experimental diets (three and one respectively in the high and low dose groups). No comparable tumours were observed in controls, compatible with the historical control rate of zero. Our results, therefore, further strengthen the hypothesis that Chinese salted fish is a human nasopharyngeal carcinogen; they also establish Wistar rats as a viable animal model for carcinogenicity studies of this food in the laboratory. Author.

**Use of the Brain laryngeal mask airway in anticipation of difficult tracheal intubation.** Thomson, K. D., Ordman, A. J., Parkhouse, N., Morgan, B. D. Department of Anaesthetic, University College Hospital, London. *British Journal of Plastic Surgery* 1989 Jul, Vol. 42 (4), pp. 478–80.

Use of the Brain laryngeal mask airway during anaesthesia is described. Its use is shown to have obviated the need for tracheal intubation in the case of a patient whose injuries would have made this technique difficult. Author.

**Dysphagia after fast neutron therapy to the head and neck.** Alexander, M. S., Edelman, G. M., Man, K., Randall, C. J. Department of Diagnostic Radiology, Royal Postgraduate Medical School, Hammersmith Hospital, London. *British Journal of Radiology* 1989 Aug, Vol. 62 (740), pp. 724–8.

Nine patients presenting with dysphagia following successful treatment for head and neck cancer with neutron radiotherapy are reviewed. Combined clinical and video fluoroscopic investigation is used to analyse their deficits and provide indications for management. All patients show impairment of both the oral and pharyngeal phases of the swallow, with the exception of one subject who shows signs of focal neurological damage. It is suggested that fibrosis is the underlying cause of dysphagia in the remainder. Author.

**The role of computed tomography and coronal plane tomography in radiotherapy for laryngeal cancers.** Dawes, P. J., Patrick, D., Hall, K. Department of Radiotherapy, Newcastle General Hospital, Newcastle upon Tyne. *British Journal of Radiology* 1989 Aug, Vol. 62 (740), pp. 729–33.

The results of a study undertaken prospectively in 1983 and 1984 to assess the value of computed tomography (CT) and conventional tomography in the planning of radiotherapy for laryngeal cancer are presented. Of 32 cases treated in 1983, 23 had both CT scans and coronal plane tomography prior to radiotherapy. At the end of 1983 these radiographs were reviewed and an assessment made of their value in treatment planning. As a result of this review it was decided that cancers of the larynx confined to the vocal cords should routinely have conventional coronal plane tomograms rather than CT scans. All other cases were to have CT scans and not tomograms. The results of following this policy in 1984 confirm that it is effective. There was no detriment to patients with early vocal cord cancers in performing coronal plane tomograms rather than CT scans. The survival at 24 months of both cohorts was 93 per cent. In the more invasive cancers of the larynx, greater information about the extent of the disease was obtained using CT scans, and improved treatment plans resulted. When compared with a historical group, there appears to be an advantage for local control, 27.3 per cent of the study group suffering local recurrence as opposed to 53.6 per cent of the historical group. Author.

**Clinical significance of cranial nerve deficit in the therapy of nasopharyngeal carcinoma.** Chen, M. S., Lin, F. J., Tang, S. G., Leung, W. M., Leung, W. Department of Radiation Oncology, Chang Gung Memorial Hospital, Taipei, Taiwan. *British Journal of Radiology* 1989 Aug, Vol. 62 (740), pp. 739–43.

The results of radiation treatment of nasopharyngeal carcinoma (NPC) have recently been improved, but the prognosis remains relatively poor in cases with cranial nerve (CN) involvement. A total of 109 cases with histologically-proven NPC and cranial nerve involvement treated during 1979–1985 were reviewed and analysed. Definitive radiotherapy (RT) was given to patients with a high upper margin of the RT field at 2.5 cm above the base of the

skull to a total dose of 70.2 Gy/39 fractions/8 weeks, with two applications of intranasopharyngeal, brachytherapy. There were 37 cases (34 per cent) in Group I (upward invasion only) and 72 cases (66 per cent) in Group II (bidirectional invasion). Abducens, trigeminal, oculomotor and facial were the commonly involved nerves. Headache was the major symptom at diagnosis and was present in 82.6 per cent of the patients, significantly higher than in general NPC cases ( $p$  less than 0.005). Fifty per cent (31/62) achieved complete response to definitive RT, but it did not correlate well with survival rate. The residual neurological deficit of each CN ranged from 31 to 57 per cent. The actuarial five year survival rates of Groups I and II were similar in spite of neck lymph node metastasis in Group II (33 per cent (I) compared with 24 per cent (II);  $p$  greater than 0.05). Cases with single CN deficit did not show better results than those with multiple CN involvements. Five-year survivors were seen only in those who received a complete course of definitive RT. Author.

**Bronchial foreign body vs asthma.** Caglayan, S., Erkin, S., Coteli, I., Oniz, H. Sosyal Sigortalar Teaching Hospital, Yenicehir, Izmir, Turkey. *Chest* 1989 Sep, Vol. 96 (3), pp. 509–11.

Between January 1983 and June 1988, 30 unsuspected foreign bodies were extracted from the respiratory tracts of children. Twelve of them showed no roentgenologic findings and their histories revealed repeated hospitalization due to reactive airways disease (RAD) or croup syndrome. As a test-therapy, theophylline, corticosteroids and epinephrine were administered simultaneously to these patients in appropriate doses. No response was obtained in two patients with subglottic foreign bodies (SFB). In seven of the 10 patients with bronchial foreign bodies (BFB), wheezing was either decreased or disappeared in the uninvolved lung, but no change was observed in the lung with a foreign body in its main bronchus. Author.

**Fiberoptic bronchoscopy in the evaluation of acute chest and upper airway trauma.** Hara, K. S., Prakash, U. B. Division of Thoracic Diseases and Internal Medicine, Mayo Clinic, Rochester, Minnesota 55905. *Chest* 1989 Sep, Vol. 96 (3), pp. 627–30.

To determine the utility of fiberoptic bronchoscopy (FFB) in the short-term evaluation of patients with trauma, we identified 53 consecutive patients (45 male patients; mean age, 36 years) seen over a 10-year period who had FFB performed within the first three days of trauma to the chest and upper airway. There were eight deaths. Fifty patients had blunt trauma to the chest. These were mostly due to motor vehicle accidents (38 patients), crushing injuries (three patients), and falls (three patients). In addition, there were three patients with trauma to the neck. Physical and radiographic findings included pneumothorax (37 patients), subcutaneous emphysema (31), pulmonary contusion (22), hemothorax (21), mediastinal emphysema (16), flail chest (10), atelectasis (10), and hemoptysis (five). The FFB was of diagnostic use in 28 patients (53 per cent) by revealing complete tracheal transection (one patient), tracheal laceration (three), complete bronchial transection (one), bronchial laceration (two), bronchial contusion (two), ongoing distal haemorrhage/pulmonary contusion (seven), aspirated material (three), mucous plugging/thick secretions (eight), and supraglottic lesions (three). One of the cases of tracheal laceration was not fully appreciated as a complete transection. We conclude that FFB has value in the short-term evaluation of patients with trauma. Author.

**Sinusitis: hidden source of sepsis in postoperative pediatric intensive care patients.** Bos, A. P., Tibboel, D., Hazebroek, F. W., Hoeve, H., Meradji, M., Molenaar, J. C. Department of Pediatric Surgery, Sophia Children's Hospital, Erasmus University, Rotterdam, The Netherlands. *Critical Care Medicine* 1989 Sep, Vol. 17–9, pp. 886–8.

Paranasal sinusitis is reported as a complication of prolonged nasal intubation and the source of sepsis in adult intensive care patients. In surgical neonates with congenital malformations, prolonged intubation with a nasotracheal (NT) or NG tube is often necessary, but sinusitis with complicating sepsis is seldom reported. Sinus X-rays may confirm the diagnosis; in infancy, prolonged nasal intubation delays the pneumatization of the sinuses and the mastoids, resulting in additional diagnostic problems. In a one year period, we saw three patients with multiple septic episodes in which the source of sepsis was undetectable. Despite the absence of clinical symptoms and radiologic evidence of sinusitis or mastoiditis, surgical drainage revealed pus and led to the disappearance of septic

episodes and ear, nose and throat problems. There is an association between prolonged NT and NG intubation, and sinusitis or mastoiditis as an unrecognized source of sepsis in young infants. Absence of radiologic evidence of sinusitis or mastoiditis causes pitfalls in diagnosis and is related to delayed pneumatization of the sinuses and the mastoid in prolonged nasal intubation in young infants. Author.

**Airway secretion electrolytes: reflection of water and salt states of the body.** Cavaliere, F., Masieri, S., Vagnoni, S., Proietti, R., Magalini, S. I. Università Cattolica del Sacro Cuore, Istituto di Anestesiologia e Rianimazione, Rome, Italy. *Critical Care Medicine* 1989 Sep, Vol. 17 (9), pp. 891–4.

Water and electrolyte content influences the rheology of respiratory mucus. Nasal secretions can be obtained from almost all patients and may be regarded as a possibly useful model of the electrolyte composition of lower airway secretions that are difficult to collect in most patients. Na, K, and Cl were determined from nasal secretions in 35 ICU patients. We studied the relationship of those values to the patients' water and salt states. Our study indicates that: a) lower K and Cl levels and higher Na levels than those found in plasma are common to both nasal and bronchial secretions; b) variations of electrolyte levels in nasal secretions are inter-related; c) patients with lower values of free-water clearance show lower Na and higher Cl levels in nasal secretions, possibly due to increased epithelial transport; d) the amount of K in nasal secretions appears correlated with its urinary fractional excretion (this could be explained by the variations in intracellular K levels); and e) in hyperchloremic patients, plasma/secretion differences of Na are decreased, possibly due to decreased epithelial transport. Author.

**Norms for disproportionate loss in speech intelligibility.** Yellin, M. W., Jerger, J., Fifer, R. C. Baylor College of Medicine, Houston, Texas. *Ear and Hearing* 1989 Aug, Vol. 10 (4), pp. 231–4.

The audiometric records of 324 subjects with sensorineural hearing loss, presumed to be cochlear, were analyzed in order to develop norms for 'disproportionate loss' in speech intelligibility. From the scatterplot relating PBmax to PTA2 (average of HTLs at 1,000, 2,000 and 4,000 Hz), and the scatterplot relating SSImax to PTA1 (average of HTLs at 500, 1,000, and 2,000 Hz), linear boundaries were constructed encompassing approximately 98 per cent of observed values. A speech intelligibility score (PB or SSI) may be considered 'disproportionately poor' if it falls below this empirically derived boundary. Author.

**Open-set speech recognition in children with a single-channel cochlear implant.** Berliner, K. I., Tonokawa, L. L., Dye, L. M., House, W. F. House Ear Institute, Los Angeles, California. *Ear and Hearing* 1989 Aug, Vol. 10 (4), pp. 237–42.

We evaluated the ability of profoundly deaf children using the 3M/House single-channel cochlear implant to understand speech without the aid of speech-reading. Fifty-one implanted children over the age of five years, who had sufficient cognitive and language skills, were tested using word and sentence stimuli presented in an open-set, auditory-only mode. Fifty-two per cent of the children demonstrated some open-set performance on word identification, while 41.5 per cent did so on sentence comprehension. Children who scored open-set had a shorter duration of deafness than those who did not. A larger proportion of children using oral communication demonstrated open-set speech recognition than those using total communication. A multiple regression analysis indicated that communication method accounted for the largest proportion of variability in performance on both the word and sentence tasks. Children achieving open-set auditory recognition, however, included both those using oral communication and those using total communication, children deafened by meningitis and those born deaf, and children with varying durations of deafness. Author.

**The effects of 'noise suppression' hearing aids on consonant recognition in speech-babble and low-frequency noise.** Tyler, R. S., Kuk, F. K. Department of Otolaryngology—Head and Neck Surgery, University of Iowa, Iowa City 52242. *Ear and Hearing* 1989 Aug, Vol. 10 (4), pp. 243–9.

We evaluated the performance of experienced hearing-aid users wearing seven different commercially available 'noise-suppression' hearing aids. Two hearing aids, the Audiotone A-54 and the Telex 363C, used amplitude compression. The others, two versions of a Maico hearing aid SP147, a Richards ASE-B, a Rion HB-69AS,

and a Siemens 283ASP, are designed to attenuate specific frequency regions in the presence of noise. Sixteen subjects listened to 13 consonants in the form (i)-consonant-(i) with six replications per consonant (78 items). Performance was measured with the compression or noise-suppression circuit on and off in the presence of speech-babble noise and in continuous low-frequency noise. Measurements were also obtained with the suppression circuit 'off' but without any background noise. The results suggested that only a few subjects benefited from the noise suppression circuits, and in several cases performance in noise was poorer with the noise suppression circuit than without it. An information-transfer analysis of the errors indicated that enhanced or decreased performance was generally a result of changes across all phonetic features, not specific ones. Author.

**Pneumococcal serum antibody concentrations during the first three years of life: a study of otitis-prone and non-otitis-prone children.** Prellner, K., Kalm, O., Harsten, G., Heldrup, J., Oxelius, A. Department of Oto-Laryngology, University Hospital, Lund, Sweden. *International Journal of Pediatric Otorhinolaryngology* 1989, Vol. 17 (3), pp. 267–79.

One hundred and thirteen children were followed prospectively from birth until the age of 3, serum being obtained from cord blood, and at the ages of 3, 6, 12, 18, 24, 30 and 36 months. Thirteen children developed recurrent acute otitis media (rAOM), 29 remained very healthy and the remaining children formed an intermediate group. Cord serum concentrations were determined of total IgG class, of IgG1 and IgG2 subclasses, as well as of specific IgG antibodies against the pneumococcal capsular types, 3, 6A and 19F. The specific pneumococcal IgG as well as IgA and IgM antibodies were also followed in the sequential serum samples up to the ages of 3 in the rAOM and healthy children. Despite total IgG class and IgG1 and IgG2 subclass concentrations being of the same magnitude in cord serum of rAOM (median: 11.15, 7.48 and 2.16 g/l for IgG, IgG1 and IgG2, respectively) as in that of healthy children (median: 10.21, 8.16 and 2.16 g/l, respectively), both in cord serum and in most serum samples drawn during the first year of life, specific IgG antibodies against types 6A and 19F, but not against type 3, were significantly lower in the rAOM group than in the healthy children. In the intermediate group, cord serum concentrations of specific IgG antibodies to type 6A were of the same magnitude as in the healthy children. The only significant difference in specific IgM and IgA antibody concentrations against types 3, 6A and 19F between the two groups was noted for type 6A antibodies at 36 months of age where rAOM children exhibited lower values. The results indicate an association between pre-existing low specific IgG antibody levels against AOM-associated pneumococcal types and the development of rAOM. Author.

**Sickle cell crisis and sensorineural hearing loss: case report and discussion.** Hotaling, A. J., Hillstrom, R. P., Bazell, C. Department of Otolaryngology, Children's Hospital of Michigan, Detroit 48201. *International Journal of Pediatric Otorhinolaryngology* 1989 Jul, Vol. 17 (3), pp. 207–11.

Patients in sickle cell crisis may complain of unilateral or bilateral hearing loss which is typically a mild to moderate high-frequency sensorineural hearing loss in the affected ear(s). Auditory acuity can return to precrisis levels. A literature review suggests that the etiology is cochlear ischemia. A review of the literature, case study, and discussion will be presented. Author.

**A clinical study of 407 cases of nasopharyngeal carcinoma in Hong Kong.** Teo, P., Tso, S. Y., Shiu, W., Leung, W. T., Tsang, V., Yu, P., Lui, C. Department of Clinical Oncology, Chinese University of Hong Kong, Prince of Wales Hospital, Shatin, N. T. *International Journal of Radiation Oncology, Biology and Physics* 1989 Sep, Vol. 17 (3), pp. 515–30.

Four hundred and seven cases of nasopharyngeal carcinoma were analyzed retrospectively; 403/407 were evaluable for recurrence and survival. Parapharyngeal boost significantly decreased local recurrences in parapharyngeal diseases without base of skull involvement (T2p), but not with base of skull involvement (T3p). Enhanced local control of T2p with boost was significant without neoadjuvant chemotherapy. Tumors localized within the nasopharynx (T1) and tumors with nasal involvement (T2n) suffering from local persistences after external radiation therapy were treated with an intracavitary afterloading method. They had survival and recurrence rates comparable to complete responders to external radiation therapy. Patients with bulky cervical nodes

(maximal diameter greater than or equal to 4 cm, N1–N3), treated with neoadjuvant chemotherapy with cis-diamminedichloroplatinum II and 5-fluorouracil, had a regional failure rate, distant metastasis rate, actuarial survival rate, and disease-free survival rate comparable to those with smaller nodes treated with external radiation therapy alone. A simple modification of the Ho's classification by regrouping the T-stages into 'early T-stages' and 'advanced T-stages' and by combining the N1 and the N2 has greatly increased the power of the system in predicting local recurrence and distant metastasis, respectively. There was an overall improvement of the actuarial survival rate and disease-free survival rate over the historical control, and its significance is discussed. Author.

**Second malignant tumors in patients with laryngeal carcinoma: diagnosis, treatment, and prevention.** McDonald, S., Haie, C., Rubin, P., Nelson, D., Divers, L. D. Department of Radiation Oncology, University of Rochester School of Medicine and Dentistry, NY 14642. *International Journal of Radiation Oncology, Biology and Physics* 1989 Sep, Vol. 17 (3), pp. 457–65.

Although the survival rates reported for patients with larynx carcinoma are quite good, there is a risk of developing second malignant tumors (SMT) in this population. The prognosis for SMT is poor, particularly with tumors of the lung and esophagus. The Rochester series was analyzed for larynx stage and specific SMT sites, possible common etiologic factors, and survival of the population as a whole, as well as for the SMT group. From a total of 235 patients with larynx carcinoma and a median follow-up of 10 years, 50 patients with 61 SMT were identified. The overall incidence of developing a SMT was 21 per cent, with 44 per cent of the SMT in the lung. The median survival from SMT diagnosis was 8.74 months and the two year survival was only 26 per cent. More than twice as many SMT were observed than would be expected in the population at risk, with an observed-to-expected ratio (OER) for lung SMT of 5.3, and eight times as many head and neck SMT occurring in our population. These SMT are not treatment related but are most likely caused by a combination of exposure to a common carcinogen, that is, tobacco smoke and alcohol, and to inherent factors, notably 'condemned mucosa syndrome'. Follow-up procedures, from the perspective of SMT development in larynx cancer patients, are addressed in an attempt to improve survival. The focus of this study is the high incidence of lung primaries that could be mistaken for metastatic disease, which is relatively uncommon in early larynx cancer patients. Author.

**Attenuation of allergen sensitivity early in the course of ragweed immunotherapy.** Hedlin, G., Silber, G., Naclerio, R., Proud, D., Eggleston, P., Adkinson, N. F. Jr. Karolinska Institutet at Huddinge University Hospital, Sweden. *Journal of Allergy and Clinical Immunology* 1989 Sep, Vol. 84 (3), pp. 390–9.

During the course of an open immunotherapy (IT) study of ragweed (RW)-allergic patients, nasal mediator release was studied by provocation testing. All subjects had a history of seasonal RW rhinitis, positive skin puncture test to RW, and RW-specific IgE by RAST. Nasal challenge was performed with serial dilutions of RW extract, before and after 12 weekly injections, providing a cumulative dose of 0.22 microgram of Amb a I. Serum IgE and IgG and basophil histamine release with RW were also measured. By 12 weeks of IT, when only one per cent of the usual maintenance level dose had been administered, mean histamine release and TAME-esterase activity in nasal washes decreased significantly ( $p$  less than 0.05 and  $p$  less than 0.01). Prostaglandin D2 release did not change. Skin sensitivity decreased ( $p$  less than 0.05), whereas RW-specific IgE increased ( $p$  less than 0.05). No significant change in basophil histamine release was observed for RW or a control antigen. Only six of 40 subjects had an RW-specific IgG rise greater than 0.05 microgram/ml. Changes in nasal sensitivity did not correlate with the increases in IgE or IgG or with the change in skin test sensitivity. These present data indicate that there is a significant decline in nasal sensitivity to inhaled RW very early in the course of IT. There is, however, no indication of a relationship between the decreased nasal sensitivity and the production of RW-specific IgG antibodies. Author.

**Major basic protein and eosinophil-derived neurotoxin concentrations in nasal-lavage fluid after antigen challenge: effect of systemic corticosteroids and relationship to eosinophil influx.** Bascom, R., Pipkorn, U., Proud, D., Dunnette, S., Gleich, G. J., Lichtenstein, L. M., Naclerio, R. M. Department of Medicine, John's Hopkins

University School of Medicine, Baltimore, Md. *Journal of Allergy and Clinical Immunology* 1989 Sep, Vol. 84 (3), pp. 338–46.

The late-phase response to nasal challenge with antigen is associated with a mixed inflammatory cell influx in which the eosinophil demonstrates the earliest and greatest proportionate rise. We investigated the evidence for activation of the eosinophil during the late response by measuring the concentration of the eosinophil-derived mediator major basic protein (MBP) and the eosinophil-derived neurotoxin (EDN) in nasal-lavage fluids before and for 11 hours after antigen challenge in 13 subjects with seasonal allergic rhinitis. The subjects received oral prednisone (20 mg three times daily) or placebo in a double-blind, crossover manner for two days before each of two antigen challenges. After placebo pretreatment, significant increases over diluent baseline ( $4.5 \pm 0.4$  ng/ml) occurred in the levels of MBP in nasal-lavage fluid during the early ( $9.8 \pm 2.9$  ng/ml;  $p$  less than 0.005) and late ( $15.3 \pm 4.8$  ng/ml;  $p$  less than 0.01) responses to antigen challenge. Significant increases ( $p$  less than 0.05) in the concentration of EDN also occurred during the late response to antigen that correlated with the levels of MBP ( $r = 0.48$ ;  $p$  less than 0.001). The cumulative late-phase increase in MBP correlated closely ( $r_s = 0.96$ ;  $p$  less than 0.005) with the total influx of eosinophils. Oral prednisone pretreatment significantly reduced the mean of each subject's peak late-phase concentration of both MBP ( $30.7 \pm 5.8$  ng/ml versus  $13.3 \pm 4.3$  ng/ml;  $p = 0.005$ ) and EDN ( $885 \pm 659$  ng/ml versus  $71 \pm 41$  ng/ml;  $p$  less than 0.05). These data provide evidence for eosinophil degranulation during the late response and inhibition of this response by prednisone, supporting its pathogenetic role. Author.

**The effect of varying the amplitude-frequency response on the masked speech-reception threshold of sentences for hearing-impaired listeners.** van Dijkhuizen, J. N., Festen, J. M., Plomp, R. Department of Otolaryngology, Free University Hospital, Amsterdam, The Netherlands. *Journal of the Acoustical Society of America* 1989 Aug, Vol. 86 (2), pp. 621–8.

In an evaluation of frequency-dependent automatic gain-control systems in hearing aids, the effect of varying the amplitude frequency response on the speech-reception threshold (SRT) for sentences in noise is studied for 20 hearing-impaired listeners. The noise has a spectrum identical to the long-term average spectrum of the sentences. Speech and noise are shaped by the same amplitude-frequency response; their spectra are varied relative to the bisector of the individuals dynamic range. In four experimental conditions, the effect of a steady state amplitude-frequency response is studied. Steepening the negative spectral slope of speech and noise appears to cause an increase of masked SRT, possibly due to increased effect of upward spread of masking. The effect of a single transition of the amplitude-frequency response between 10 and -10 dB/oct halfway through the sentence seems to be related to the effect for the fixed -10-dB/oct condition. Two transition times are tested. For a transition time of 0.25 s, the SRT is only a little higher than for 1 s. The results suggest that the amplitude-frequency response may be varied in time without having a detrimental effect on the masked SRT of sentences for hearing-impaired listeners as long as strongly negatively sloping spectra are avoided. Author.

**The endo-antral syndrome: an endodontic complication.** Selden, H. S. Department of Endodontology, School of Dentistry, Temple University, PA. *Journal of American Dental Association* 1989 Sep, Vol. 19 (3), pp. 397–8, 401–2.

Infection of pulpally involved teeth near the maxillary sinus sometimes spreads into the sinus and causes serious complications. This pathological complex, involving both antral and periapical tissues, is referred to as the endo-antral syndrome (EAS). It includes diagnostic difficulties, treatment considerations, and occasionally persistent pathological antral alterations after nonsurgical endodontic therapy. Surgical measures are occasionally required to stimulate healing and preserve the teeth. Author.

**Peptic (contact ulcer) granuloma of the larynx.** Miko, T. L. Department of Pathology, University Medical School of Debrecen, Hungary. *Journal of Clinical Pathology* 1989 Aug, Vol. 42 (8), pp. 800–4.

Review of published work and analysis of clinical data and pathology of four biopsy specimens from two patients with laryngeal contact granuloma showed that its peptic origin was derived from a gastro-oesophago-laryngeal reflux. It is proposed that the term 'peptic granuloma' should be given to this phenomenon. This term is given further support on account of the spectacular recovery of

the laryngeal lesion following antacid and antireflux treatment, rather than the traditional method of using vocal rest and speech therapy, assumed to be the best way of treating a result of mechanical irritation, the previously accepted cause of laryngeal contact granuloma. Author.

**Hereditary vestibulo-cochlear dysfunction and vascular disorders.** Verhagen, W. I., Huygen, P. L., Theunissen, E. J., Joosten, E. M. Department of Neurology, Canisius-Wilhelmina Hospital, Nijmegen, The Netherlands. *Journal of Neurological Science* 1989 Aug, Vol. 92 (1), pp. 55–63.

A family is described with a progressive autosomal dominant vestibulocochlear dysfunction resulting in a Dandy syndrome, head movement dependent oscillopsia and hearing loss. The history was negative for other neurological or otological diseases (including infectious diseases) or use of neuro-ototoxic drugs, except for a high incidence of vascular disorders (hypertension, stroke, and heart infarction). Author.

**Short-term psychological outcome of anterior temporal lobectomy.** Hermann, B. P., Wyler, A. R., Ackerman, B., Rosenthal, T. Epilepsy Center, Baptist Memorial Hospital, Memphis, Tennessee. *Journal of Neurosurgery* 1989 Sep, Vol. 71 (3), pp. 327–34.

The purpose of this investigation was to determine the short-term behavioral and emotional effects of anterior temporal lobectomy (ATL). Forty-one patients who underwent ATL were administered a standardized measure of emotional adjustment (Mental Health Inventory) on four occasions: preoperatively, and one, three and six months postoperatively. Patients who were rendered totally seizure-free by ATL showed significant improvements on multiple indices of psychological distress and psychological well-being, improvement that continued up to three months after surgery and remained constant at six months postoperatively. Patients who were significantly improved (greater than 75 per cent reduction in seizure frequency) but continued to experience some seizure activity showed no significant improvements in behavioral or emotional adjustment. The clinical and theoretical significance of these findings is discussed, and it is suggested that functional outcome (for instance, mental health) following ATL may be best predicted by a binary seizure outcome classification (seizure-free or not seizure-free). Author.

**Risk factors in the psychosocial work environment for neck and shoulder pain in secretaries.** Linton, S. J., Kamwendo, K. Department of Occupational Medicine, Orebro Medical Center, Sweden. *Journal of Occupational Medicine* 1989 Jul, Vol. 31 (7), pp. 609–13. The relationship between psychologic work variables and reported neck and shoulder pain was examined among secretaries. A battery of questionnaires concerning the experienced psychologic work environment as well as musculoskeletal pain symptoms was completed by 420 secretaries at a large medical center. A relatively 'poor' psychologic work environment was compared with an environment that was experienced as 'good'. A 'poorly' experienced psychologic work environment was related to a higher frequency of neck and shoulder pain. The relative risk for frequent neck pain was 2.85 (95 per cent confidence interval 1.28 to 6.32) and for frequent shoulder pain 3.32 (95 per cent confidence interval 1.53 to 7.23). Furthermore, the subindexes of work content and social support at work were found to be related to pain, whereas no clear relationship was found for work demands. The results of this study demonstrate the possible importance of the psychologic work environment in the development of musculoskeletal pain disorders. Future investigations should replicate these findings as well as isolate specific mechanisms so that preventive measures may be instituted. Author.

**Occupational allergic rhinitis reaction to psyllium.** Schwartz, H. J., Arnold, J. L., Strohl, K. P. Department of Medicine, University Hospital of Cleveland, OH 44106. *Journal of Occupational Medicine* 1989 Jul, Vol. 31 (7), pp. 624–6.

We report studies that document a specific rhinitis reaction that developed as a result of occupational exposure to a psyllium-based powdered laxative. This nurse had a nonatopic family history, personal evidence of atopy (skin test reactions to pollen, cat dander, and house dust), and a significant elevation of antipsyllium IgE. Measurements of nasal and lower airway resistance documented only nasal obstruction to brief inhalational challenge to the laxative. Symptomatic relief was achieved with prior treatment with cromolyn. We suggest that nasal airway challenge can document and assess treatment for occupational rhinitis. Author.

**The inflammatory paradental cyst.** Vedtofte, P. Praetorius, F. Department of Oral and Maxillofacial Surgery, Royal Dental College, Copenhagen, Denmark. *Oral Surgery, Oral Medical, Oral Pathology* 1989 Aug, Vol. 68 (2), pp. 182–8.

The inflammatory paradental cyst has previously been described as the collateral inflammatory cyst, the inflammatory lateral paradental cyst, the paradental cyst, or the mandibular infected buccal cyst. Clinical, radiographic, and histologic features of 29 inflammatory paradental cysts diagnosed over a 5-year period were studied. The cysts occurred in relation to a partly of fully erupted tooth with a vital pulp. Twenty-seven of the cysts were located in the mandible and the remaining two in the maxilla. The mandibular cysts were in all cases associated with a molar. The observation that the cysts are diagnosed within a few years after tooth eruption and the demonstration of a statistically significant difference ( $p=0.001$ ) in age distribution and in the type of tooth involved suggest that eruption is important for the development of the cysts. The consistent finding of a hyperplastic, nonkeratinized stratified squamous epithelium with an intense inflammation in the connective tissue is in accordance with the hypothesis that inflammation is important for the development of these cysts. Author.

**Bursitis: a factor in the differential diagnosis of orofacial neuralgias and myofascial pain dysfunction syndrome.** Salins, P. C., Bloxham, G. P. College of Dentistry, King Saud University, Riyadh, Saudi Arabia. *Oral Surgery, Oral Medical, Oral Pathology* 1989 Aug, Vol. 68 (2), pp. 154–7.

A woman had pain on swallowing and talking when initially seen. Previous diagnoses of glossopharyngeal, neuralgia and myofascial pain dysfunction syndrome had been made. Appropriate treatment for these conditions failed to produce any improvement. Palpation revealed two tender areas bilaterally, overlying the hamulus. Treatment with an injection of 1 ml of dexamethasone (Decadron) 4 mg/ml into each area of tenderness resulted in a dramatic improvement. An anatomic review disclosed the presence of a bursa on the hamulus to protect the tendon of tensor veli palatini. A diagnosis of bursitis was made because of the dramatic improvement in the patient's condition as the result of corticosteroid therapy. Bursitis should therefore be considered in the differential diagnoses of orofacial neuralgias, temporomandibular joint dysfunction, and myofascial pain dysfunction syndrome. Author.

**Acute cervical myelopathy from hereditary multiple exostoses: case report.** Wen, D. Y., Bergman, T. A., Haines, S. J. Department of Neurosurgery, University of Minnesota Medical School, Minneapolis. *Neurosurgery* 1989 Sep, Vol. 25 (3), pp. 472–5.

A case of hereditary multiple exostoses with acute cervical myelopathy, tetraplegia, and apnea is reported. Neurological complications as a result of osteochondromas in hereditary multiple exostoses are rare. The majority of osteochondromas in the cervical spine arise from the neural arch. Magnetic resonance imaging and computed tomography are invaluable in localizing the origin of the lesion and its relationship to the spinal cord. Decompressive laminectomy usually results in excellent functional recovery. Where significant dorsal spinal cord compression exists without neurological deficit, prophylactic decompression can be recommended. Author.

**Persistent foramen of Huschke: possible risk factor for otologic complications after arthroscopy of the temporomandibular joint.** Herzog, S., Fiese, R. *Oral Surgery, Oral Medical, Oral Pathology* 1989 Sept, Vol. 68 (3), pp. 267–70.

Several cases of otologic injury after arthroscopy of the TMJ have been reported. This study describes the persistent foramen of Huschke, an area of incomplete ossification of the tympanic plate of the temporal bone present in some persons. The presence of this foramen may render middle and inner ear structures vulnerable to injury during arthroscopy of the TMJ. Author.

**Cryosectional observations of functional anatomy of the temporomandibular joint.** Westesson, P. L., Kurita, K., Eriksson, L., Katzberg, R. W. Department of Oral Radiology, University of Lund, School of Dentistry, Malmo, Sweden. *Oral Surgery, Oral Medical, Oral Pathology* 1989 Sept, Vol. 68 (3), pp. 247–51.

The anatomy and function of the temporomandibular joint are complex, and our understanding about how the retrocondylar tissues change when the condyle translates anteriorly has been incomplete. We therefore examined the sectional anatomy of 24 fresh

human temporomandibular joints at different gradations of jaw opening, protrusion, and laterotrusion. We found that the tissues of the posterior disk attachment expanded in volume and occupied the space behind the condyle when the mouth was opened, protruded, or laterotruded to the contralateral side. Volumetric expansion of the tissue seemed to be due mainly to distension of the venous structures in the retrodiskal area. In the lateral region of the joint, tissue from the superior aspect of the parotid gland also seemed to contribute to the filling of the space posterior to the condyle. Thus, the retrodiskal tissue appears to have a substantial capacity to expand and fill the mandibular fossa when the condyle translates anteriorly. The possibility of a dynamic vascular physiology is suggested. Author.

**Pharyngeal gonorrhoea screening in adolescents: is it necessary?**

Brown, R. T., Lossick, J. G., Mosure, D. J., Smeltzer, M. P., Cromer, B. A. Ohio State University, Columbus. *Pediatrics* 1989 Oct, Vol. 84 (4), pp. 623–5.

A prospective study was performed to examine the prevalence of pharyngeal gonorrhoea in two urban female adolescent populations and to compare pharyngeal infection with a history of orogenital activity and concurrent genital gonorrhoea. Group I was drawn from a children's hospital adolescent clinic and group II was drawn from a public health clinic for sexually transmitted diseases. None of the 240 adolescents in group I had a pharyngeal culture positive for *Neisseria gonorrhoeae* compared with 3.4 per cent in group II. Only 2.5 per cent of group I had genital gonorrhoea, but 33 per cent of group II had positive genital cultures. In only two of the 20 patients with pharyngeal gonococcal infection was the pharynx the only infected site. The addition of routine pharyngeal culturing for gonorrhoea yielded only 1 per cent additional gonorrhoea cases. There was a significant relationship between concurrent genital and pharyngeal gonorrhoea. These findings indicate that routine screening for pharyngeal gonorrhoea is not productive in some adolescent populations. A more economic approach would be to use gonorrhoea treatment that is effective against both genital and pharyngeal gonorrhoea or to obtain pharyngeal cultures in those adolescents returning for test-of-cure cultures after antibiotic treatment for genital gonorrhoea. Author.

**Imaging of the larynx: current concepts.** Curtain, H. D. Department of Radiology, Eye and Ear Hospital, Pittsburgh NMR Institute, PA. *Radiology* 1989 Oct, Vol. 173 (1), pp. 1–11.

Not every laryngeal abnormality requires imaging. If a lesion is small and there is no evidence of deep extension, the clinician can derive all visual examination. Similarly, when a lesion is large and obviously involves both true and false cords (transglottic), the clinician already knows that a total laryngectomy is necessary and imaging is of little value unless there is a question about nodal involvement. The real value of imaging is in the questionable cases in which a decision must be made about the feasibility of speech conservation therapy. The radiologist must understand the various conservation techniques and the key information needed to determine the feasibility of each. In cases in which patients are able to

cooperate with the examination, MR with multiplanar imaging capabilities and increased tissue differentiation has, in my view, an edge over CT. However, many patients cannot cooperate, and in these cases CT provides a more consistently good examination. Some centers rely totally on CT and some rely completely on MR imaging units with low or middle field strength. Either can give excellent laryngeal imaging. At my institution, with a high-field-strength unit, MR imaging is the first choice if the patient is fairly cooperative and is thought able to undergo the examination. Even if the patient cannot tolerate the entire protocol, the examination usually provides enough necessary information. If the patient has major problems with secretions or has difficulty cooperating, we do not try MR imaging but use CT; the examination is almost always adequate even though restricted to one plane. The imaging modality used is less important than the radiologist's knowledge of the key anatomic landmarks. The most important landmarks, from a surgeon's perspective, are the ventricle, anterior commissure, and the cricoid cartilage. The structures most helpful in identifying the position of the ventricle are the paraglottic fat, the thyroarytenoid muscle, and the arytenoid cartilage. The clinician remains responsible for evaluating the mucosal surface. The goal of the radiologic examination is to find deep tumoral extension that the clinician cannot see. Author.

**Functional endoscopic sinus surgery. A critical long-term evaluation.** Kloppers, S. P. Sandton Clinic, Tvl. *South African Medical Journal* 1989 Sept 16, Vol. 76 (6), pp. 262–4.

Functional endoscopic sinus surgery (FESS) has been hailed as a breakthrough in the surgical management of chronic recurring sinusitis. A study was conducted and the results scrutinised to determine the validity of this claim. A long-term evaluation of patients who had undergone FESS was conducted in order to determine the most common pre-operative symptoms and signs, intra-operative findings and postoperative progress. These details were analysed by computer to identify common factors in the small percentage of patients who present with persistent recurring sinusitis after FESS. Suggestions that will minimise the risk of failure are presented. Author.

**Group C beta-hemolytic streptococci causing pharyngitis and scarlet fever.** Corson, A. P., Garagusi, V. F., Chretien, J. H. Student Health Service, Georgetown University, Washington, DC 20057. *Southern Medical Journal* 1989 Sept, Vol. 82 (9), pp. 1119–21.

After a young woman had scarlet fever associated with group C beta-hemolytic streptococcal pharyngitis, we reviewed all cases of pharyngitis treated at a student health clinic during that semester. From 541 cases of pharyngitis, 34 cultures yielded group C *Streptococcus*. The patients who harbored group C organisms were similar to the patients with group A streptococcal pharyngitis in the presence of fever, exudate, and cervical adenopathy. The severity of symptoms and the demonstration of scarlet fever developing from infection with this organism supports antibiotic treatment of patients with group C streptococcal pharyngitis. Author.