

## Abstract Selection

**Effects of immunotherapy with a purified standardized allergen preparation of *Dermatophagoides farinae* in adults with perennial allergic rhinoconjunctivitis.** Lofkvist, T., Agrell, B., Dreborg, S., Svensson, G. Department of Oto-Rhino-Laryngology, University Hospital, Lund, Sweden. *Allergy* (1994) February, Vol. 49 (2), pp. 100–7.

Immunotherapy (IT) was performed for 12 months with a purified and standardized preparation of *Dermatophagoides farinae*. Twenty adults with rhinoconjunctivitis sensitive to house-dust mite were given IT, and a similar group of 11 patients served as open controls. A total of 512 injections were given. Twenty-eight episodes of allergic side-effects occurred, 13 general and 15 local, most of them during the initial incremental dose period. No severe reactions started later than 30 min after the injection. One patient suffered anaphylactic shock. In this patient, specific antibodies fell immediately, followed by an increase within 1 week. The therapy group improved significantly in relation to the open controls in patients' subjective evaluation of symptoms ( $P < 0.028$ ) and skin ( $P < 0.0001$ ) and conjunctival ( $P < 0.001$ ) sensitivity. Specific IgE increased in controls ( $P < 0.0001$ ) but not in IT-treated patients during the 'mite season'; that is, there was a significant difference in change during the observation period ( $P < 0.0001$ ). There was also a difference in change of specific IgG between the groups during the first 4–5 months and the whole year ( $P < 0.0001$ ), but not from 4–5 months to 12 months. In contrast to changes in antibody titers (IgG,  $P = 0.04$ ), changes in conjunctival ( $P < 0.01$ ) and especially skin sensitivity ( $P < 0.005$ ) correlated well with subjective improvement. This implies that the skin prick test and the conjunctival test can be recommended for follow-up of IT.

**Omeprazole for the treatment of posterior laryngitis.** Kamel, P. L., Hanson, D., Kahrilas, P. J. Department of Medicine, Northwestern University Medical School, Chicago, Illinois 60611. *American Journal of Medicine* (1994) April, Vol. 96 (4), pp. 321–6.

**PURPOSE:** To determine whether the patients with refractory posterior laryngitis respond to treatment with omeprazole. **PATIENTS AND METHODS:** Sixteen consecutive patients with persistent posterior laryngitis despite prior therapy with H2 blockers were recruited from outpatient university otolaryngology and gastroenterology practices. Patients received 6 to 24 weeks of omeprazole 40 mg qhs, which was increased to 40 mg twice a day for 6 weeks in four patients with continuing symptoms. Laryngoscopy, esophagoscopy, and esophageal/laryngeal symptom questionnaire were completed at entry to the study. Laryngoscopy and the questionnaire were repeated at the conclusion of the study. A follow-up questionnaire was completed at 6 weeks. **RESULTS:** Laryngoscopy scores improved from 4.44 to 1.94 (nonblinded otolaryngologist) and 4.31 to 1.88 (blinded otolaryngologist) ( $P < 0.05$ ). Laryngeal and esophageal symptom indices improved from 13.94 and 9.00 to 3.00 and 0.38, respectively ( $P < 0.05$ ). Symptom indices increased to 7.00 and 7.33, respectively, after the discontinuation of therapy ( $P < 0.05$  compared with the conclusion of the study). One patient intolerant of omeprazole underwent fundoplication and was asymptomatic 6 weeks after surgery. Only 3 patients had esophagitis at entry. **CONCLUSIONS:** The signs and symptoms of posterior laryngitis improve with the administration of omeprazole and symptoms recur after discontinuation of therapy, suggesting that reflux is the underlying etiology. Patients with refractory symptoms, but intolerant of omeprazole, may benefit from antireflux surgery. Laryngoscopic findings of posterior laryngitis are often subtle, and many patients with posterior laryngitis do not have esophagitis. Author.

**Choanal atresia in a patient with the deletion (9p) syndrome.** Shashi, V., Golden, W. L., Fryburg, J. S. Department of Pediatrics, University of Virginia, Charlottesville. *American Journal of Medical Genetics* (1994), January 1, Vol. 49 (1), pp. 88–90.

We report on a child with choanal atresia and deletion 9p. A review of the literature documented one previous instance of choanal atresia in a patient with deletion (9p). Choanal atresia may be part of the spectrum of malformations in the deletion (9p) syndrome and its presence should prompt a search for this particular deletion as part of the differential diagnosis. Author.

**Clinical diagnosis of the Usher syndromes. Usher Syndrome Consortium.** Smith, R. J., Berlin, C. I., Hejtmancik, J. F., Keats, B. J., Kimberling, W. J., Lewis, R. A., Moller, C. G., Pelias, M. Z., Tranebjaerg, L. Department of Otolaryngology, University of Iowa, Iowa City 52242. *American Journal of Medical Genetics* (1994) March 1, Vol. 50 (1), pp. 32–8.

The Usher syndromes are genetically distinct disorders which share specific phenotypic characteristics. This paper describes a set of clinical criteria recommended for the diagnosis of Usher syndrome type I and Usher syndrome type II. These criteria have been adopted by the Usher Syndrome Consortium and are used in studies reported by members of this Consortium. Author.

**The functional impact of extraction and nonextraction treatments: a long-term comparison in patients with 'borderline', equally susceptible Class II malocclusions** Beattie, J. R., Paquette, D. E., Johnston, L. E. Jr. Department of Orthodontics and Pediatric Dentistry, University of Michigan, Ann Arbor. *American Journal of Orthodontics and Dento-Facial Orthopedics* (1994) May, Vol. 15 (5), pp. 444–9.

Discriminant analysis was used to identify in retrospect a sample of 63 patients who had presented initially with Class II malocclusions that, according to then prevailing standards of specialty practice, could have been treated either with or without the extraction of premolars. These 'borderline' subjects (33 extraction, 30 nonextraction) were then recalled for a long-term evaluation (on average, about 14 years after treatment) of the functional status of both the head and the neck musculature and the temporomandibular joints. In terms of a menu of 62 signs and symptoms (muscle palpation, joint function) that are commonly thought to be characteristic of craniomandibular disorders, there were no significant differences between the extraction and nonextraction samples. The present data therefore fail to support the popular notion that 'pre-molar extraction causes "TMJ"'. Author.

**Transcervical gunshot injuries.** Hirshberg, A., Wall, M. J., Johnston, R. H. Jr., Burch, J. M., Mattox, K. L. Cora and Webb Mading Department of Surgery, Baylor College of Medicine, Houston, Texas 77030. *American Journal of Surgery* (1994) March, Vol. 167 (3), pp. 309–12.

Gunshot injuries across the cervical midline are not addressed in existing trauma algorithms. A retrospective study of 41 patients with transcervical gunshot wounds was undertaken to delineate injury patterns and management principles. Thirty-four of the 41 patients (83 per cent) sustained 52 injuries to major cervical structures. Vascular (22 injuries) and upper airway (13 injuries) structures were most commonly involved. This resulted in presentation with life-threatening problems in 16 patients (39 per cent). The in-hospital mortality was 10 per cent. In 30 of the 36 neck explorations (83 per cent), the findings were positive for injuries to cervical structures. Sixteen bilateral explorations were performed; in each case, cervical injury was observed on at least one side of the neck. These results indicate that transcervical injuries are excellent markers of associated visceral injury. Therefore, a policy of mandatory neck exploration and a particularly 'low threshold' for bilateral exploration are the key to managing these injuries. Author.

**Ambroise Pare and the king's mastoiditis.** Liston, S. L. Depart-

ment of Otolaryngology, University of Minnesota, St. Paul. *American Journal of Surgery* (1994) April, Vol. 167 (4), pp. 440–2. In 1560, Francois II, King of France, died of mastoiditis. Ambroise Pare was among his attendants. Pare was technically capable of draining the king's post-auricular abscess; this paper examines some of the reasons why he did not attempt any surgical procedure. This was a time of extreme tension between Catholics and Huguenots in France. Pare was a Huguenot, and the king was Catholic. Pare was a 'barber-surgeon' which was the lowest level in the medical hierarchy at that time. Pare believed in the humoral theory of disease and may have been discouraged by air in the mastoid sinus. He was also very worried about being accused of poisoning the king. There is no evidence to suggest that the king's mother refused to allow Pare to operate because she wanted to achieve power as Regent of France. Author.

**Hereditary motor and sensory neuropathy with diaphragm and vocal cord paresis.** Dyck, P. J., Litchy, W. J., Minnerath, S., Bird, T. D., Chance, P. F., Schaid, D. J., Aronson, A. E. Peripheral Neuropathy Research Center, Mayo Clinic, Rochester, MN 55905. *Annals of Neurology* (1994) May, Vol. 35 (5), pp. 608–15.

We describe two kindreds with an autosomal dominant inherited disorder characterized by a variable degree of muscle weakness of limbs, vocal cords, and intercostal muscles and by asymptomatic sensory loss, beginning in infancy or childhood in severely affected persons. Life expectancy in severely affected patients is shortened because of respiratory failure. Because nerve conduction velocities are normal and it is an inherited axonal neuropathy, we classify the disorder as a variety of hereditary motor and sensory neuropathy type II (HMSN II) (HMSN IIc). The present report provides further evidence for heterogeneity among the hereditary motor and sensory neuropathy type II disorders. In one large pedigree with the type IIc disorder, no linkage to DNA markers known to map near the HMSN IA locus on chromosome 17p or the HMSN IB locus on chromosome 1q was demonstrated. Author.

**Varicella-associated acute supraglottitis.** Nozicka, C. A., Naidu, S. H., McFadden, J. Department of Emergency Medicine, Lutheran General Children's Hospital, Park Ridge, Illinois. *Annals of Emergency Medicine* (1994) April, Vol. 23 (4), pp. 888–90.

Acute bacterial supraglottitis is a well-recognized pediatric entity. There are reports in the literature of numerous supraglottic infections not limited to the usual organism, *Haemophilus influenzae* type b. We present a case of acute supraglottitis that is associated with varicella infection. Author.

**Omentopexy for tracheal autografts.** Nakanishi, R., Shirakusa, T., Takachi, T. Second Department of Surgery, School of Medicine, University of Occupational and Environmental Health, Kitakyushu, Japan. *Annals of Thoracic Surgery* (1994) April, Vol. 57 (4), pp. 841–5.

An effective method of vascularization is required in tracheal transplantation, as tracheal vessels are too fine to be anastomosed easily. A series of experiments, including postmortem injection study, were conducted to assess the usefulness of omentopexy for tracheal autografts in 17 dogs. In group I (n = 4) a six-ring tracheal autograft was implanted in the greater omentum for 28 days. The structural integrity of all the autografts was maintained. In group II (n = 3) a six-ring cervical trachea was excised and reimplanted as an autograft without omental wrapping. All three autografts dissolved or transformed. No neovascularity from the recipient trachea or surrounding tissue was seen in the autografts by postoperative day 11. In group III (n = 10) omentopexy was added to the same experiment as group II. All the autografts were nourished adequately by the omental circulation as demonstrated by injection study, and remained viable early after transplantation. We conclude that the omentopexy is an effective method to facilitate neovascularization in tracheal autografts. Author.

**Auditory abnormalities, including 'precocious presbycusis', in myotonic dystrophy.** Huygen, P. L., Verhagen, W. I., Noten, J. F. Department of Otolaryngology, University Hospital Nijmegen, The Netherlands. *Audiology* (1994) March–April, Vol. 33 (2), pp. 73–84. Auditory function tests were performed on 13 patients with myotonic dystrophy (MD). Seven patients had a sensorineural high-frequency hearing loss (HFL) of 30–85 dB at 8 kHz in their pure-

tone audiogram, which was in excess of that expected for their age and could be attributed to MD. Their hearing loss resembled 'precocious presbycusis', i.e. if the patients had been considerably older (or 'functionally' older) than they really were, their HFL could (to some extent) have been attributed to presbycusis alone. The HFL showed the phenomenon of (genetic) anticipation. Tympanograms and acoustic reflexes were normal. Brainstem auditory evoked potentials (BAEPs) showed a significant increase in the I-V interpeak interval (by 0.35–0.7 ms) and in the III–V interpeak interval (by 0.21–0.67 ms). There was no correlation between the BAEP and the audiometric findings. It should be noted that precocious presbycusis may be linked to specific gene defects. Author.

**Ginkgo biloba extract for the treatment of tinnitus.** Holgers, K. M., Axelsson, A., Pringle, I. Department of Audiology, Sahlgren's Hospital, Goteborg, Sweden. *Audiology* (1994) March–April, Vol. 33 (2), pp. 85–92.

Previous studies have shown contradictory results of Ginkgo biloba extract (GBE) treatment of tinnitus. The present study was divided into two parts: first an open part, without placebo control (n = 80), followed by a double-blind placebo-controlled study (n = 20). The patients included in the open study were patients who had been referred to the Department of Audiology, Sahlgren's Hospital, Goteborg, Sweden, due to persistent severe tinnitus. Patients reporting a positive effect on tinnitus in the open study were included in the double-blind placebo-controlled study (20 out of 21 patients participated). Seven patients preferred GBE to placebo, 7 placebo to GBE and 6 patients had no preference. Statistical group analysis gives no support to the hypothesis that GBE has any effect on tinnitus, although it is possible that GBE has an effect on some patients due to several reasons, e.g. the diverse etiology of tinnitus. Since there is no objective method to measure the symptom, the search for an effective drug can only be made on an individual basis. Author.

**Cervical disk bulges in fighter pilots.** Hamalainen, O., Visuri, T., Kuronen, P., Vanharanta, H. Air Force Academy, Kauhava, Finland. *Aviation, Space and Environmental Medicine* (1994) February, Vol. 65 (2), pp. 144–6.

This paper reports three cases of bulging cervical disks among fighter pilots flying high-performance aircraft who experienced acute in-flight neck pain during aerial combat manoeuvres under high +Gz forces. Radiographic investigations (magnetic resonance imaging/computed tomography/myelography) revealed that disk bulges were the cause of the pain. One pilot underwent decompressive surgery, and two were treated conservatively. Acute in-flight neck pain and related problems, such as bulging cervical disks, may become more common, since the modern fighter aircraft of the future will be better able to create and sustain high +Gz forces than the fighter aircraft in use today. Further, the increasing number of helmet-mounted devices will make flight helmets heavier, thus placing increased stress on cervical structures. Author.

**Incidence of allergic rhinitis in general practice, 1981–92.** Ross, A. M., Fleming, D. M. Birmingham Research Unit, Royal College of General Practitioners. *British Medical Journal* (1994) April 2, Vol. 308 (6933), pp. 897–900.

**OBJECTIVES:** To determine the epidemiology of hay fever and to consider the role of pollution. **DESIGN:** Examination of data on weekly incidence of allergic rhinitis and hay fever by age, sex, region, and location. **SETTING:** Royal College of General Practitioners Weekly Returns Service. Practice data were based on registered populations or 220,000 in 1981, rising to 700,000 in 1992 from England and Wales. **MAIN OUTCOME MEASURES:** Numbers of new cases of hay fever and allergic rhinitis. Data on pollen counts for Darlington, Derby, and London. **RESULTS:** The incidence of allergic rhinitis fluctuated greatly from year to year but showed no trend. Peaks in hay fever coincided with peak pollen counts. No important differences were found between urban and rural locations or different parts of the country with respect to both size and timing of the peaks. Incidence was highest in children (5–14 years). **CONCLUSIONS:** The similarity of the results throughout England and Wales does not support an important role for local pollutants in hay fever. However, the possibility that levels of pollutants are high enough to act as an adjuvant in hay fever across the whole study area has not been excluded. Author.

**Grommets, tonsillectomies, and deprivation in Scotland.** Bisset,

A. F., Russell, D. Department of Public Health Medicine, Grampian Health Board, Aberdeen. *British Medical Journal* (1994) April 30, Vol. 308 (6937), pp. 1129–32.

**OBJECTIVE:** To see whether there is a relation between grommet insertion operation and tonsillectomy rates, otolaryngology services, and deprivation scores in Scotland. **DESIGN:** Analysis of routine 1990 NHS data on grommet insertions and tonsillectomies in Scottish children aged 0–15 years compared with data on general practitioner and otolaryngology services and Carstairs deprivation scores. **SETTING:** All 15 Scottish health boards. **SUBJECTS:** All children aged 0–15 (1,021,933). **RESULTS:** Tonsillectomy was more common than grommet insertion operations in Scotland (6182:4850). Health boards with high grommet insertion rates were more likely to have low tonsillectomy rates (Spearman's rank correlation  $-0.59$ ; 95 per cent confidence interval  $-0.87$  to  $-0.03$ ). Grommet insertion rates varied fourfold (from 2.4/1000 to 9.2/1000) and tonsillectomy rates twofold (from 3.6/1000 to 8.0/1000) across Scottish health boards. Variation between health boards had changed over the 15 years 1975–90. Variation in grommet insertion rates did not reflect variation in the supply of otolaryngology consultants (Spearman's rank correlation  $-0.25$ ). There was a non-significant tendency for high general practitioner referral rates to be associated with high grommet insertion rates, low tonsillectomy rates, and less deprived areas (Spearman's rank correlation coefficients 0.50,  $-0.53$ , and  $-0.43$ ). Deprivation (measured by Carstairs scoring for each health board) was associated with higher tonsillectomy rates (Spearman's rank correlation 0.41; 95 per cent confidence interval  $-0.22$  to 0.80) and significantly lower grommet insertion rates ( $-0.73$ ;  $-0.92$  to  $-0.28$ ). **CONCLUSION:** Social factors as well as differences in disease prevalence and medical practice need to be considered when studying variation in childhood grommet insertion and tonsillectomy rates. Author.

**Parotid and parapharyngeal tumours: tissue characterisation with dynamic magnetic resonance imaging.** Tsushima, Y., Matsumoto, M., Endo, K. Department of Diagnostic Radiology and Nuclear Medicine, Gunma University Hospital, Japan. *British Journal of Radiology* 1994 April, Vol. 67 (796), pp. 342–5.

Prospective studies were performed to characterize parotid and parapharyngeal tumours using dynamic magnetic resonance (MR) imaging. Bolus injection of gadopentetate dimeglumine and a short SE sequence were used to evaluate 23 masses including seven pleomorphic adenomas, seven Warthin's tumours and nine malignant tumours. Contrast enhancement profiles helped to distinguish the different types of parotid and parapharyngeal tumours. Gradual increase in intensity during the first 260 s after the injection was characteristically found in pleomorphic adenomas and adenoid cystic carcinomas. Conversely, all Warthin's tumours showed a rapid increase during the first 20 s followed by a decrease in signal intensity. The other malignant tumours showed a rapid increase during the first 20 s followed by gradual decrease or increase at a slow rate. We suggest that the gradual increase in signal intensity of pleomorphic adenoma and adenoid cystic carcinoma may be due to their hypovascularity and an abundance of interstitial regions rich in connective tissue-type mucin. Dynamic MRI shows promise in tissue characterization of parotid and parapharyngeal tumours. Author.

**Recurrent laryngeal nerve palsy after thyroid gland surgery.** Wagner, H. E., Seiler, C. Department of Visceral and Transplantation Surgery, Inselspital, University of Berne, Switzerland. *British Journal of Surgery* 1994 February, Vol. 81 (2), pp. 226–8.

Risk factors for recurrent laryngeal nerve (RLN) lesions after thyroid gland surgery were evaluated retrospectively in 1026 patients. RLN palsy occurred in 5.9 per cent; the incidence of permanent palsy was 2.4 per cent as 59 per cent of paralyses were transient. For euthyroid nodular goitre, Graves' disease, chronic lymphocytic thyroiditis, recurrent goitre and thyroid carcinoma, permanent nerve damage occurred in 1.7, 4, 5, 3.8 and 8 per cent of patients respectively. In relation to the number of nerves at risk, the incidence of permanent RLN palsy was 1.1 per cent for subtotal lobectomy and 4.0 per cent for total lobectomy. The overall incidence of permanent RLN palsy was 1.8 per cent of nerves at risk. There was no statistically significant difference between the number of RLN paralyses occurring after nerve exposure and that occurring after non-exposure in subtotal lobectomy, but in total lobectomy the permanent palsy rate increased from 3.8 to 7 per cent when the nerve was not exposed or identified ( $P < 0.01$ ). Underlying thyroid disease, the

extent of resection and exposure of the nerve in total lobectomy are risk factors for both transient and permanent RLN palsy. Author.

**The frequency of a concomitant early esophageal cancer in male patients with oral and oropharyngeal cancer. Screening results using Lugol dye endoscopy.** Ina, H., Shibuya, H., Ohashi, I., Kitagawa, M. Department of Radiology, Tokyo Medical and Dental University, Japan. *Cancer* (1994) April 15, Vol. 73 (8), pp. 2038–41. **BACKGROUND:** Male patients with oral and oropharyngeal cancer are known to have high risk of concomitant esophageal cancer developing. Thus, mass screening programs are pursued to detect such esophageal cancer early, and in a mass screening trial of patients with early oral and oropharyngeal cancer, the efficacy of Lugol dye endoscopy for detecting concomitant esophageal cancers has been evaluated. **METHODS:** Lugol dye was used in an endoscopic screening of 101 patients with oral cancer and 26 with oropharyngeal cancer; all of the patients were men. **RESULTS:** Among these 127 patients, eight (6.3 per cent) clinical asymptomatic concomitant esophageal cancers were detected, and four of these eight cancers were found in the patients with oropharyngeal cancer. Five of these eight superficial lesions could not be detected by ordinary endoscopy or barium study. **CONCLUSION:** Our results show that Lugol dye endoscopy is indispensable for monitoring male patients with oral or oropharyngeal cancer to detect an early concomitant esophageal cancer. In addition, a higher frequency of concomitant esophageal cancer was seen in the patients with oropharyngeal cancer than in the patients with oral cancer. Author.

**Esthesioneuroblastoma. Long-term outcome and patterns of failure—the University of Virginia experience.** Eden, B. V., Debo, R. F., Larner, J. M., Kelly, M. D., Levine, P. A., Stewart, F. M., Cantrell, R. W., Constable, W. C. Department of Radiology, University of Virginia Health Sciences Center, Charlottesville 22908. *Cancer* (1994) May 15, Vol. 73 (10), pp. 2556–62.

**BACKGROUND:** Esthesioneuroblastoma is a rare tumour arising from olfactory epithelium. This retrospective review analyzed the patterns of failure and long term outcome of patients with esthesioneuroblastoma evaluated at a single institution. **METHODS:** Forty patients with esthesioneuroblastoma were evaluated at the University of Virginia, with a median follow-up of 130 months. In most cases, treatment consisted of combined-modality therapy, including radiotherapy and surgery for Stages A and B disease and the addition of chemotherapy for Stage C disease. Fifteen patients received chemotherapy that included cyclophosphamide plus vincristine. Thirty-eight patients received radiotherapy, with a median dose of 50 Gy. Initial surgery for 23 patients included craniofacial resection, whereas the remainder had less extensive surgery (3 had no initial surgery). Five patients were salvaged with high dose chemotherapy and autologous bone marrow transplantation (CTX/BMT). **RESULTS:** Actuarial survivals at 5, 10, and 15 years are 78, 71, and 65 per cent respectively. Fifty-five per cent of patients failed therapy, and 68 per cent of the failures were locoregional. Thirty-nine per cent of recurrences occurred later than 5 years from diagnosis. Three of the five patients were successfully salvaged with CTX/BMT compared with four of seventeen patients who underwent conventional salvage therapy. **CONCLUSIONS:** Esthesioneuroblastoma is associated with long term survival and late recurrences. Multimodality therapy should be used initially. Durable remissions of failures can be achieved with CTX/BMT. Author.

**Tonsil cancer. Patterns of failure after surgery alone and surgery combined with postoperative radiation therapy.** Foote, R. L., Schild, S. E., Thompson, W. M., Buskirk, S. J., Olsen, K. D., Stanley, R. J., Kunselman, S. J., Schaid, D. J., Grill, J. P. Division of Radiation Oncology, Mayo Clinic, Rochester, MN 55905. *Cancer* (1994) May 15, Vol. 73 (10), pp. 2638–47.

**BACKGROUND:** The authors determined the patterns of treatment failure in patients treated with surgery alone or surgery combined with postoperative radiation therapy for squamous cell carcinoma of the tonsil. **METHODS:** Seventy-two patients underwent surgery alone (56) or surgery and postoperative adjuvant radiation therapy (16). All patients were followed up until death (40 patients) or for a minimum of 3.5 years. For patients treated with surgery alone, clinic notes, operative notes, and pathology reports and slides were reviewed to identify clinical or pathology predictors of recurrence above the clavicles, cause-specific survival, and overall survival. For patients undergoing postoperative adjuvant radiation therapy, demo-

graphic, treatment, and pathologic variables were analyzed to identify factors associated with control of disease above the clavicles, disease-free survival, and overall survival. **RESULTS:** The main pattern of treatment failure was above the clavicles. It occurred in 39 per cent of patients treated with surgery alone and was significantly related ( $P = 0.002$ ) to the overall clinical TNM stage. Disease recurrence above the clavicles occurred in 31 per cent of patients undergoing surgery and postoperative adjuvant radiation therapy, despite their more advanced neck disease. Five-year overall survival for patients with clinical Stage III and IV disease who were treated with surgery and post-operative adjuvant radiation therapy was 100 per cent and 78 per cent, respectively. Five-year overall survival for patients treated with surgery alone who had clinical Stage III, IVA, or IVB disease was 56, 43, and 50 per cent, respectively. **CONCLUSION:** We recommend postoperative adjuvant radiation therapy for patients with clinical Stage III or IV squamous cell carcinoma of the tonsil who have undergone complete surgical resection because this appears to improve control of disease above the clavicles and overall survival. Author.

**New barriers to ventricular invasion in paraglottic laryngeal cancer.** Beitler, J. J., Mahadevia, P. S., Silver, C. E., Wadler, S., Rubin, J. S., Bello, J. A., Mitnick, R. J., Vikram, B. Department of Radiation Oncology, Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, NY 10467-2490. *Cancer* (1994) May 15, Vol. 73 (10), pp. 2648–52.

**BACKGROUND:** Anatomic barriers to the spread of laryngeal cancer include the conus elasticus, the quadrangular membrane, and the thyroid cartilage. It has been speculated that an elastic barrier surrounds and protects the ventricle. **METHODS:** The authors studied the microanatomic patterns of spread of 17 cases of patients who had laryngeal cancer with paraglottic disease and confirmed their findings by examining normal autopsy specimens. **RESULTS:** Five patients of the seventeen cases showed no ventricular mucosal involvement despite extensive paraglottic disease. Both an inner, central, subepithelial periventricular elastic membrane barrier were identified; the latter was in continuity with the conus elasticus and quadrangular membrane. **CONCLUSIONS:** Two weak fibroelastic barriers surround the ventricle. The outer, peripheral, fibroelastic membrane is contiguous with the conus elasticus and the quadrangular membrane. Therefore, ventricular involvement is not a sensitive indicator of paraglottic spread. Squamous cell cancer may grow around the periventricular barriers to involve both the true and false cords but may spare the ventricle. The prognostic significance of the violation or preservation of the periventricular elastic barriers is unknown. Author.

**Hafnia alvei. Respiratory tract isolates in a community hospital over a three-year period and a literature review.** Klapholz, A., Lessnau, K. D., Haug, B., Talavera, W., Boyle, J. F. Division of Pulmonary/Critical Care Medicine, Cabrini Medical Center, New York, New York 10003. *Chest* (1994) April, Vol. 105 (4), pp. 1098–100. In a retrospective review, a group of seven patients were found to have a sputum culture positive for *Hafnia alvei*. *Hafnia alvei* is a Gram-negative enteric and oropharyngeal bacillus and usually is nonpathogenic. All our patients had a chronic underlying illness and one of the patients was endotracheally intubated at the time of the isolation of this organism. Six of seven patients had other organisms isolated along with *H alvei*, and only one patient had a pure growth of *H alvei* confirmed by a culture obtained from a bronchoscopic protected brush specimen. All isolates displayed resistance to conventional antibiotics including cephalosporins and penicillins. Although rare, *H alvei* may be a potential pathogen in a patient with a chronic underlying illness. Author.

**Nasal resistance in obstructive sleep apnea.** Atkins, M., Taskar, V., Clayton, N., Stone, P., Woodcock, A. Department of Respiratory Physiology, North West Lung Centre, Wythenshawe Hospital, Manchester, England. *Chest* (1994) April, Vol. 105 (4), pp. 1133–5. **BACKGROUND:** Acute increases in nasal resistance are known to induce upper airway occlusion in predisposed subjects. With the limited efficacy of nasal surgery alone in the treatment of obstructive sleep apnea (OSA), the relevance of chronically increased nasal resistance in the pathophysiologic features of OSA remains undetermined. **METHODS:** Seventy-one patients with OSA (apnea + hypopnea index > 15 (AHI)) and 70 antisocial snorers (ASS (AHI < 15)) referred for routine assessment of sleep-disordered breath-

ing had concomitant measurement of combined (CNR) and highest unilateral (HUNR) nasal resistance by anterior rhinomanometry. **RESULTS:** Nine individuals (five of 71 in the OSA group and 4 of 70 in the ASS group,  $0.5 < P < 0.75$ ) had an abnormally elevated CNR. The HUNR was increased in 21 individuals (11 of 70 in the ASS group and 10 of 71 in the OSA group,  $0.25 < P < 0.5$ ). There was no significant difference between CNR in OSA (1.5(0.5) (mean (SE))) and ASS (1.6(0.2)) groups. No correlation was found between CNR and the AHI in OSA or in ASS. The Mean HUNR in the OSA group was 5.5 (0.9) (mean (SE)) and in ASS was 5.3 (0.6), which were not significantly different ( $P = 0.89$ ). The HUNR also did not correlate with the AHI in either OSA or ASS. **CONCLUSION:** Chronic changes in nasal resistance are not a significant risk factor for the development or severity of OSA. Author.

**Otalgia in infants and children—a manifestation of gastroesophageal reflux.** Gibson, W. S. Jr., Cochran, W. Department of Pediatric Otolaryngology, Geisinger Medical Center, Danville, PA 17822. *International Journal of Pediatric Otorhinolaryngology* (1994) January, Vol. 28 (2–3), pp. 213–8.

To investigate if there is a relationship between gastroesophageal reflux and ear pain in the pediatric age group, a series of children presenting with this picture were analyzed. Infants and children are often seen in an emergency room setting because of fretfulness, irritability, and pulling on the ears. A diagnosis of otitis media is usually made, but in some cases the diagnosis may be referred otalgia secondary to gastroesophageal reflux. Six children who presented with the above picture were seen by one of the authors (W.S.G.) the following morning and noted to have a normal ear exam. These children were studied for gastroesophageal reflux by esophageal pH monitoring and in some cases esophagoscopy with biopsy. All children exhibited gastroesophageal reflux and an anti-reflux regimen eliminated the pattern of 'recurring otitis media'. This paper will review the mechanism of referred otalgia along with data supporting the concept of GE reflux as a cause of otalgia in infants and children. Author.

**Progressive sensorineural hearing loss (SNHL) and peripheral neuropathy: a case report.** Hanft, K. L., Haddad, J. Jr. Division of Pediatric Otolaryngology, Columbia Presbyterian Medical Center Babies Hospital, New York, NY 10032. *International Journal of Pediatric Otorhinolaryngology* (1994) January, Vol. 28 (2–3), pp. 229–34.

Sensorineural hearing loss (SNHL) is infrequently associated with peripheral neuropathy. When co-existent with peripheral neuropathy, it tends to present in the early adult years, is slowly progressive and is accompanied by optic atrophy or bowel abnormalities. The following case presents an unusual patient with severe and rapidly progressive SNHL and peripheral neuropathy. Author.

**Long-term results of neonates with nasal deviation: a prospective study over 12 years.** Pentz, S., Pirsig, W., Lenders, H. Department of Otorhinolaryngology, University of Ulm, Germany. *International Journal of Pediatric Otorhinolaryngology* (1994) January, Vol. 28 (2–3), pp. 183–91.

In the literature of the past 100 years only a few cases with documented long-term healing of intrauterinely acquired nasal deviation could be found. Therefore we prospectively investigated 3425 children who were born between 1980 and 1981 in the Obstetric Department of the University Hospital of Ulm. In this group 29 neonates (0.86 per cent) showed a deviation of the bony and cartilaginous nose related to intrauterine injury. After a period of 11–12 years we could re-examine 14 children by otorhinolaryngological examination, photographic documentation of the face and acoustic rhinometry. After 11–12 years nine children presented a straight nose and five children (36 per cent) showed a deviation of the nasal pyramid to the same side as found at birth—markedly in two girls and slightly in three girls. Unexpectedly high was the rate of malocclusions, namely in 13 out of 14 children. Author.

**Audiologic and impedancemetric findings within thalassaemic patients.** Onerci, M., Aslan, S., Gumruk, F., Aksoy, S., Belgin, E., Ozcelik, T., Altay, C. Hacettepe Medical Faculty, ENT Dept., Ankara, Turkey. *International Journal of Pediatric Otorhinolaryngology* (1994) January, Vol. 28 (2–3), pp. 167–72. The objective of this study is to investigate hearing losses in thalassa-

saemic patients. This study was conducted on 34 thalassaemic patients of which 27 of them had thalassaemia major and the remaining 7 had thalassaemia intermedia. Six (11.11 per cent) of the 54 ears with thalassaemia major were found to have normal hearing. Thirty-two ears (59.26 per cent) had conductive hearing loss, 8 ears (14.81 per cent) had mixed type of hearing loss. Moreover, in this group, there was no ear which had pure sensorineural hearing loss. Of the majority of patients having thalassaemia major and thalassaemia intermedia, an air bone gap was found even though there was no negative pressure in the middle ear. In these patients a high degree of static compliance and normal shaped, stiff amplitude, normal pressure tympanograms were observed. Moreover, in most of these patients acoustic reflexes were not obtained. These findings are rather interesting since they show the pathological changes which may cause stiffness in the middle ear sound transmission system. Author.

**General illness and need of medical care in otitis prone children.** Stenstrom, C., Ingvarsson, L. Department of Oto-rhino-laryngology, University of Lund, Malmo General Hospital, Sweden. *International Journal of Pediatric Otorhinolaryngology* (1994) March, Vol. 29 (1), pp. 23–32.

The frequency of acute infectious diseases and allergy was investigated in a group of 'otitis prone' children and a control group. A total of 252 children born between 1977 and 1981, prospectively followed and with six or more episodes of acute otitis media (AOM), were defined as an 'otitis prone' group. Of the children, 61 per cent were boys and 39 per cent were girls. The controls were 252 children randomly chosen from the population of Malmo and matched for age and sex. The medical records for both groups from the ages of 2 to 7 years were compared. The 'otitis prone' children accounted for an average number of ambulatory visits to the ENT or paediatric clinics of 38.8 per child, compared with 9.2 in the control group, and had been hospitalized three times more often in the ENT department than the controls, and twice as often in the paediatric department. The 'otitis prone' children accounted for more visits to the orthopaedic clinic than the controls, but had not been hospitalized more often in the surgical or orthopaedic departments. The 'otitis prone' children accounted for 2–4 times as many diagnoses of rhinopharyngitis, bacterial rhinitis/sinusitis and tonsillitis as controls, and significantly more diagnosed episodes of broncho/pulmonary, gastrointestinal and urinary tract infections. There were twice as many children in the 'otitis prone' group with allergic diseases as in the control group (37 per cent vs 17 per cent). The findings showed the 'otitis prone' children to be more susceptible than the controls to different acute infectious diseases. Author.

**Double-blind randomized study of lonidamine and radiotherapy in head and neck cancer.** Magno, L., Terraneo, F., Bertoni, F., Tordiglione, M., Bardelli, D., Rosignoli, M. T., Ciottoli, G. B. Radiotherapy Department, Ospedale di Circolo, Varese, Italy. *International Journal of Radiation Oncology, Biology and Physics* (1994) April 30, Vol. 29 (1), pp. 45–55.

**PURPOSE:** Preclinical studies showed lonidamine to potentiate the effects of x-irradiation by inhibiting the repair of potentially lethal damage. This Phase III double blind, placebo-controlled study was performed to evaluate whether lonidamine can increase the tumour control of radiotherapy in the treatment of advanced head and neck cancer without any synergistic toxic effects on the exposed normal tissues. **METHODS AND MATERIALS:** Ninety-seven patients with Stages II–IV squamous cell carcinoma of the head and neck were enrolled. Separate analyses were done on the 96 eligible patients and the 90 patients who completed the prescribed treatment regimen. Patients received radiotherapy up to a planned total of 60–66 Gy, in 2 daily fractions of 1.5 Gy each and either lonidamine (450 mg p.o. in three divided daily doses) or placebo, given continuously for 3 months or up to 1 month after the end of radiotherapy. **RESULTS:** The rate of tumour clearance was 66 per cent (32/48) in the lonidamine group and 65 per cent (31/48) in the placebo group, while the subsequent failure rate was 50 per cent and 77 per cent, respectively ( $P < 0.05$ ). The 3 and 5 year locoregional control rates in the adequately treated patients achieving complete tumour clearance were 66 per cent and 63 per cent for lonidamine vs 41 per cent and 37 per cent for placebo. The disease-free survival in adequately treated patients was significantly better in the lonidamine group ( $P < 0.03$ ),

with 3 and 5 year rates of 44 per cent and 40 per cent, respectively, vs 23 per cent and 19 per cent in the placebo group. The overall survival rate for all eligible patients at both 3 and 5 years was 44 per cent in the lonidamine group and 44 per cent and 31 per cent, respectively, in the placebo group. Both acute and late radiation reactions were similar in the two groups. Myalgia and testicular pain were the most frequent side effects of lonidamine with an incidence of 8.5 per cent and 4.2 per cent, respectively. **CONCLUSION:** The addition of lonidamine to hyperfractionated radiotherapy was correlated with a statistically and clinically significant proportion of long-term disease-free patients. The toxicity of radiotherapy was not aggravated by the drug and the overall tolerance of the combined regimen was acceptable. Author.

**An outbreak of foodborne streptococcal throat infection.** Shemesh, E., Fischel, T., Goldstein, N., Alkan, M., Livneh, A. Israel Defense Forces Medical Corps, Tel-Hashomer. *Israel Journal of Medical Sciences* (1994) April, Vol. 30 (4), pp. 275–8.

Streptococcal pharyngitis is a common disease of epidemic nature, usually transmitted by saliva droplets. We present an epidemiologic analysis of an outbreak of streptococcal pharyngitis in a military unit involving 75 soldiers. The causing organism was *Streptococcus pyogenes* (group A beta hemolytic *Streptococcus*, T28 M56), which was isolated from 53 affected individuals. The source of the epidemic was probably an army cook. The infection was transferred by a cabbage salad to individuals who became symptomatic within 24–48 h. This epidemic is a reminder of an exceptional route of streptococcal dissemination and one of the largest outbreaks of foodborne streptococcal pharyngitis documented. Author.

**Aquaplast thermoplastic (Opti-Mold). A unique moldable tie-down dressing for full-thickness skin grafts.** Fish, F. S., Hilger, P. A. Department of Dermatology and Cutaneous Surgery, St. Paul-Ramsey Medical Center, MN 55101. *Journal of Dermatologic Surgery and Oncology* (1994) April, Vol. 20 (4), pp. 239–44.

Aquaplast thermoplastic (Opti-Mold), a unique moldable 'tie-down' dressing, can be heated, shaped, and sutured in place over full-thickness skin grafts. It allows for excellent uniform pressure over a skin graft while also allowing for drainage from the graft bed, and is particularly useful for the contoured surfaces of the nose and ears. Author.

**The neck-tongue syndrome.** Orrell, R. W., Marsden, C. D. University Department of Clinical Neurology, National Hospital, London, UK. *Journal of Neurology, Neurosurgery and Psychiatry* (1994) March, Vol. 57 (3), pp. 348–52.

The neck-tongue syndrome, consisting of pain in the neck and altered sensation in the ipsilateral half of the tongue aggravated by neck movement, has been attributed to damage to lingual afferent fibres travelling in the hypoglossal nerve to the C2 spinal roots. The lingual afferents in the hypoglossal nerve are thought to be proprioceptive. Two further cases of the neck-tongue syndrome are described, the spectrum of its clinical manifestations is explored, and the phenomenon of the lingual pseudoathetosis is illustrated as a result of the presumed lingual deafferentation. Author.

**Preservation of hearing after surgery for acoustic schwannomas: correlation between cochlear nerve function and operative findings.** Umez, H., Aiba, T. Department of Neurosurgery, Toranomon Hospital, Tokyo, Japan. *Journal of Neurosurgery* (1994) May, Vol. 80 (5), pp. 844–8.

The results of surgery in 66 patients with acoustic schwannoma in whom total tumour removal was accomplished are reviewed in terms of the relationships among tumour size, preoperative hearing level, operative findings (including the shape and location of the cochlear nerve at the tumour surface), and the extent of post-operative hearing preservation. Both tumour size and the preoperative hearing level were correlated with the shape of the cochlear nerve, which more frequently formed a solid bundle when the tumour was small or the preoperative hearing was excellent. Hearing was retained postoperatively only in cases in which the nerve formed a solid bundle and could be differentiated and separated from the tumour capsule without difficulty. These findings suggest that

tumour size and preoperative hearing level, which have been reported to be the main prognostic factors of postoperative hearing preservation, may influence the results of surgery for acoustic schwannoma through the shape of the cochlear nerve. Author.

**Endotracheal colonization with *Candida* enhances risk of systemic candidiasis in very low birth weight neonates.** Rowen, J. L., Rench, M. A., Kozinetz, C. A., Adams, J. M. Jr., Baker, C. J. Department of Pediatrics, Baylor College of Medicine, Houston, Texas 77030. *Journal of Pediatrics* (1994) May, Vol. 124 (5 Pt 1), pp. 789–94.

**OBJECTIVE:** To determine whether growth of *Candida* from an endotracheal aspirate identifies a population of very low birth weight (VLBW; < or = 1500 gm) neonates at increased risk of systemic candidiasis. **DESIGN:** Prospective evaluation with weekly cultures of endotracheal and rectal specimens to determine colonization status. **SUBJECTS:** One hundred sixteen VLBW neonates (mean birth weight, 975 ± 23 gm, estimated gestational age, 27.6 ± 0.2 weeks) with endotracheal tubes in place who were admitted to a level III nursery between January 8 and December 2, 1992. **RESULTS:** Of the 116 subjects, 39 infants were colonized with *Candida* (34 per cent). Thirteen neonates had growth of *Candida* in one or more cultures of endotracheal specimens. Eleven of these could be examined, and in five systemic disease developed (disease in 5/11 vs 2/26; relative risk = 5.9; 95 per cent confidence interval, 1.34 to 26). Eight infants were colonized with *Candida* in the first week of life. Seven of these could be examined, and in five systemic candidiasis developed (disease in 5/7 vs 2/30; RR = 9.3; 95 per cent confidence interval, 2.3 to 38.0). **CONCLUSIONS:** Colonization with *Candida* occurs frequently in VLBW infants. Progression from colonization to systemic infection is more common in the smallest neonates. Detection of colonization in the first week of life or the growth of *Candida* from an endotracheal aspirate identifies a group of VLBW neonates with an endotracheal tube in place whose risk of systemic candidiasis is increased. A prospective trial of intervention in this high-risk population is warranted. Author.

**The efficacy of antifungal agents incorporated into a facial prosthetic silicone elastomer.** Pigno, M. A., Goldschmidt, M. C., Lemon, J. C. Department of Dental Oncology, University of Texas M.D. Anderson Cancer Center, Houston. *Journal of Prosthetic Dentistry* (1994) March, Vol. 71 (3), pp. 295–300.

Microbiologic isolation techniques and scanning electron microscopy were used to determine whether a fungus is associated with the black discoloration of some silicone nasal prostheses. Colonies of fungal growth were seen on scanning electron micrographs of the affected areas of a nasal prosthesis, and a fungus belonging to the genus *Penicillium* was isolated from similar areas. Disk diffusion tests determined that the antifungal agent clotrimazole, when incorporated into silicone samples, was effective in inhibiting *in vitro* growth of the fungus. Author.

**Informed consent: what do patients want to know?** Dawes, P. J., Davison, P. Sunderland Royal Infirmary, UK. *Journal of the Royal Society of Medicine* (1994) March, Vol. 87 (3), pp. 149–52.

Informed consent is an important aspect of surgery, yet there has been little inquiry as to what patients want to know before their operation. This study has questioned 50 patients within 3 months of an ENT (ear, nose and throat) operation. We found that most were happy to allow doctors to determine their treatment but they wanted to know about their condition, the treatment, and the important side effects. Fifty per cent of patients admitted worrying about some aspect of their recent surgery. More than two-thirds thought signing a consent form primarily signified agreement to undergo treatment and that it was a legal document; 54 per cent thought there was an important medico-legal aspect. Over half thought information sheets would be reassuring, one-third thought they would provoke anxiety and 8 per cent thought they would frighten them from having surgery. Closer examination of the answers to our questions showed that those who were most worried about aspects of their surgery had a higher mean anxiety score, as did those who thought an information sheet would be either frightening or anxiety provoking. However, a higher anxiety score was not associated with a desire to know less about the proposed treatment. Author.

**Applied comparative anatomy of the avian middle ear.** Mills, R. Department of Otolaryngology, Ninewells Hospital, University of Dundee, Scotland, UK. *Journal of the Royal Society of Medicine* (1994) March, Vol. 87 (3), pp. 155–6.

The anatomy of the middle ear has been studied in nine species of birds, with particular reference to the structure of the ossicle and its relationship to the tympanic membrane. The morphology of the avian middle ear has been compared to that of the reconstructed human middle ear. Drum to stapes footplate assemblies created during ossiculoplasty operations differ from the pattern found in the avian middle ear in a number of important respects and this may help to explain why they are often unsuccessful. It is not technically feasible to reproduce the avian middle ear pattern exactly in the human middle ear and developments in reconstructive technique should therefore be directed towards reproducing the three ossicle pattern of the mammalian ear. Author.

**Concomitant chemoradiotherapy for advanced head and neck cancer.** Lin, J. C., Jan, J. S., Hsu, C. Y. Department of Radiation Oncology, Taichung Veterans General Hospital, Taiwan, R. O. C. *Japanese Journal of Clinical Oncology* (1994) April, Vol. 24 (2), pp. 94–100.

Head and neck cancer is mostly curable in the early stages by either surgery or radiotherapy alone, but the control rate for advanced stages is low, even with combined surgery and postoperative radiotherapy. From September, 1990, to January, 1992, 35 patients with locoregionally advanced head and neck cancers were entered in a prospective study of concomitant chemoradiotherapy. Thirty-three completed the treatment. There were 29 males and four females with a median age of 53 years. All except one patient were in stage IV. Radiotherapy was delivered using a telecobalt unit and by conventional fractionation (1.8 Gy/fraction, 5 fractions/wk). Chemotherapy with cisplatin (10 mg/m<sup>2</sup>/day, daily, days 1–5) and 5-FU (500 mg/m<sup>2</sup>/day continuously infused for five days) was given concurrently during the first and fifth weeks of radiation. Twenty-four among 31 eligible patients achieved complete response (77.4 per cent) and the other seven (22.6 per cent) partial response, resulting in a 100% response rate. The toxicities experienced were increased compared with those caused by radiotherapy alone. The most common side effects were gastrointestinal and hematologic toxicities but the whole treatment was well tolerated. The two-year actuarial survival rate is 45 per cent. We found the primary origin and overall treatment time to affect survival significantly. The survival rate for tumours arising from the nasopharynx or paranasal sinus is better than for those arising from other regions of the head and neck. The shorter treatment times (within eight weeks) had a better survival rate. Our preliminary experience suggests that concomitant chemoradiotherapy is both feasible and effective for head and neck cancer. The optimal scheduling and dosage of concomitant chemoradiotherapy should be further researched. Author.

**A prospective cohort study on breast-feeding and otitis media in Swedish infants.** Aniansson, G., Alm, B., Andersson, B., Hakansson, A., Larsson, P., Nylén, O., Peterson, H., Rigner, P., Svanborg, M., Sabharwal, H. *et al.* Department of Medical Microbiology, Lund University, Sweden. *Pediatric Infectious Diseases Journal* (1994) March, Vol. 13 (3), pp. 183–8.

This study analyzed the effect of breast-feeding on the frequency of acute otitis media. The protocol was designed to examine each child at 2, 6 and 10 months of age. At each visit nasopharyngeal cultures were obtained, the feeding pattern was recorded and the acute otitis media (AOM) episodes were documented. The analysis was based on 400 children from whom complete information was obtained. They represented 83 per cent of the newborns in the study areas. By 1 year of age 85 (21 per cent) children had experienced 111 AOM episodes; 63 (16 per cent) had 1 and 22 (6 per cent) had 2 or more episodes. The AOM frequency was significantly lower in the breast-fed than in the non-breast-fed children in each age group ( $P < 0.05$ ). The first AOM episode occurred significantly earlier in children who were weaned before 6 months of age than in the remaining groups. The frequency of nasopharyngeal cultures positive for *Haemophilus influenzae*, *Moraxella catarrhalis* and *Streptococcus pneumoniae* was significantly higher in children with AOM. At 4 to 7 and 8 to 12 months of age, the AOM frequency was significantly higher in children with day-care contact and siblings ( $P < 0.05$  and  $< 0.01$ , respectively). The frequency of upper respiratory tract infections was increased in children with AOM but significantly reduced in the breast-fed group. Author.

**Management of chronic suppurative otitis media: superiority of therapy effective against anaerobic bacteria.** Brook, I. Georgetown University School of Medicine, Washington, DC. *Pediatric Infectious Diseases Journal* (1994) March, Vol. 13 (3), pp. 188–93. The aerobic and anaerobic microbiology and management of 69 children who had chronic suppurative otitis media were studied retrospectively. A total of 188 isolates (103 anaerobic and 85 aerobic) were recovered. Anaerobic organisms alone were isolated from 11 (16 per cent), aerobic bacteria only in 21 (30 per cent) and mixed aerobic and anaerobic flora was present in 37 (54 per cent). Forty-five beta-lactamase-producing bacteria were recovered from 60 (58 per cent) patients. The most rapid time for resolution was noticed with clindamycin ( $8.3 \pm 0.6$  days) ( $P < 0.001$ ), as compared with ampicillin ( $12.0 \pm 0.8$  days), erythromycin ( $16.5 \pm 1.6$  days) and cefaclor ( $14.6 \pm 2.3$  days). Resolution of the infection was achieved in 16 of 20 (80 per cent) of those treated with clindamycin, 12 of 24 (50 per cent) treated with ampicillin, 6 of 13 (46 per cent) treated with erythromycin, and 4 of 12 (33 per cent) treated with cefaclor. Organisms resistant to the antimicrobial used were recovered in 26

of 31 of patients who failed to respond to therapy. These findings indicate the role of resistant aerobic and anaerobic organism in the polymicrobial etiology of chronic otitis media in children and illustrate the superiority of therapy effective against anaerobic bacteria. Author.

**Os odontoideum with vertebral artery occlusion.** Takakuwa, T., Hiroi, S., Hasegawa, H., Hurukawa, K., Endo, S., Shimamura, T. Critical Care and Emergency Center, Iwate Medical University, Morioka, Japan. *Spine* (1994) February 15, Vol. 19 (4), pp. 460–2. A 21-year-old man developed signs of brainstem damage after being injured while playing rugby. Cervical x-ray films showed os odontoideum, and angiography revealed persistent occlusion of the right vertebral artery at the level of the second cervical spine. These findings indicated that atlantoaxial dislocation caused by os odontoideum may have induced vertebral artery occlusion, leading to brainstem infarction. Author.