

## Abstract selection

**Acquired tracheomegaly in adults as a complication of diffuse pulmonary fibrosis.** Woodring, J. H., Barrett, P. A., Rehm, S. R., Nurenberg, P. Department of Diagnostic Radiology, Albert B. Chandler Medical Center, University of Kentucky, Lexington 40536-0084. *American Journal of Roentgenology* (1989) Apr, Vol. 152 (4), pp. 743–7.

We studied the chest radiographs of 34 consecutive patients with diffuse pulmonary fibrosis to determine the presence of tracheomegaly and to follow its progression with time. Patients had been identified by a computer search of medical records. We measured the internal transverse diameter of the trachea 2 cm. above the top of the aortic arch on erect posteroanterior chest radiographs. Transverse diameters greater than 25 mm. in men and 21 mm. in women were considered indicative of tracheomegaly. Pulmonary-function tests, available in 30 of the 34 patients, showed restrictive lung disease. The transverse tracheal measurements were compared with the cause of fibrosis, severity of restriction, duration of illness, and other clinical variables. Tracheomegaly was present in 10 (29 per cent) of the patients, including four with fibrosing alveolitis, four with sarcoidosis, and two with chronic progressive histoplasmosis. In seven of these patients, serial radiographs showed that the tracheal dilatation had progressed with time. Nine of 24 patients without tracheomegaly also had progressive increase in transverse tracheal diameter over time. Of the 10 patients with tracheomegaly, pulmonary-function tests were available in eight and showed moderate restrictive lung disease in six and severe restrictive lung disease in two. The duration of illness was 3–6 months in two patients, 10–22 years in five patients, and not recorded in three patients. Chronic cough and repeated respiratory infections were slightly more common in those patients with tracheomegaly than in those without. These data suggest that tracheomegaly develops as a complication of diffuse pulmonary fibrosis in patients who have at least moderate restrictive lung disease and prolonged illness, and it may have some association with chronic cough and repeated respiratory infection. Author.

**Does the effect of immunotherapy last after termination of treatment? Follow-up study in patients with grass pollen rhinitis.** Mosbech, H., Osterballe, O. Medical Dept., State University Hospital, Copenhagen, Denmark. *Allergy* (1988) Oct, Vol. 43 (7), pp. 523–9.

In a previous study, 39 adults with grass pollen allergy were hypo-sensitized for approximately 2 1/2 years. Treatment was performed in a double-blind fashion with extract made from timothy grass—either Alutard SQ 20-component extract or a purified 2-component extract, including only the two major allergens Phl p V and VI. Standardized symptom + medicine scores and challenge tests demonstrated a clinical effect, most markedly in the group receiving 20-component extract. Six years after termination of treatment, 38 patients could be approached and 16 in each group were examined and repeated symptoms scoring during the subsequent season. When adjustment for variations in pollen counts were made, medicine + symptom scores stayed low during the follow-up period. Specific IgE-antibodies against timothy showed an increase to initial values during the same period, whereas total IgE antibodies remained low. Skin prick test reactions with timothy allergen tended to increase but were still smaller than before treatment. Retrospectively, the patients reported symptoms to have stabilized or even further decreased after termination of treatment, with no significant difference between groups. In conclusion, the clinical effect was still present more than six years after termination of treatment. Some *in vitro* parameters tended to return to pretreatment level. The spontaneous course of the disease in non-hypo-sensitized patients was not investigated. Author.

**Transdermal scopolamine: a review of its effects upon motion sickness, psychological performance, and physiological functioning.** Parrott, A. C. Department of Psychology, North East London Polytechnic, England. *Aviation, Space and Environmental Medicine* (1989) Jan, Vol. 60 (1), pp. 1–9.

Scopolamine is the most effective single drug for the prophylaxis and treatment of motion sickness. However, oral or injected scopolamine displays a comparatively short duration of action (5–6 hours), and leads to deleterious side effects on autonomic and central nervous system cholinergic functions. The transdermal scopolamine system was designed to reduce these problems, but while it does deliver scopolamine over a prolonged time period (72 h), deleterious side effects are also produced. Transdermal scopolamine provides significant motion sickness protection, similar in extent to that provided by oral scopolamine or dimenhydrinate. Its autonomic nervous system effects comprise reduced salivation, bradycardia, and blurred vision due to reduced visual accommodation. The visual problems increase following repeated patch applications, with hypermetropic ('long sighted') individuals particularly at risk. Central nervous system effects comprise reduced memory for new information, impaired attention, and lowered feelings of alertness. Variation in response to transdermal scopolamine has also been reported, both between individuals, and between different patch applications on the same individual. Author.

**Osteotomy at the Le Fort I level. A versatile procedure.** Wood, G. D., Stell, P. M. Regional Head and Neck Oncology Unit, Royal Liverpool Hospital. *British Journal of Oral and Maxillofacial Surgery* (1989) Feb, Vol. 27 (1), pp. 33–8.

Tumours of the nasopharynx, cervical spine and base of skull have been surgically excised using the Le Fort I maxillary osteotomy to gain access to them. Five cases that illustrate the versatility of the approach are presented. The Le Fort I osteotomy is recommended to oral and maxillofacial surgeons, ENT and neurosurgeons as a simple procedure to approach the described areas which leaves no external scars and gives good visualisation of the tumour to be removed. Author.

**Dimensions of the cleft nasal airway in adults: a comparison with subjects without cleft.** Hairfield, W. M., Warren, D. W. University of North Carolina, Chapel Hill. *Cleft Palate Journal* (1989) Jan, Vol. 26 (1), pp. 9–13.

The prevalence of mouthbreathing among individuals with cleft lip and palate is significantly higher than in the normal population. This has been attributed to nasal deformities that tend to reduce nasal airway size. The purpose of the present study was to determine how a heterogeneous adult group with cleft lip and palate differs in terms of nasal airway cross-sectional area from an adult group without cleft during the inspiratory and expiratory phases of breathing. The pressure-flow technique was used to estimate nasal airway size in 15 adults without cleft (15 years or older) and 37 adults with cleft lip, cleft palate, or both. Mean areas and standard deviations for subjects without cleft were  $0.63 \text{ cm}^2 \pm 0.17$  during inspiration and  $0.56 \text{ cm}^2 \pm 0.14$  during expiration. This difference is statistically significant ( $p$  less than 0.01). Mean areas and standard deviations for all subjects with cleft were  $0.37 \text{ cm}^2 \pm 0.18$  during inspiration and  $0.40 \text{ cm}^2 \pm 0.20$  during expiration. This difference is not statistically significant ( $p$  greater than 0.15). Twenty-two of the subjects with cleft had nasal areas considered to be impaired (below  $0.40 \text{ cm}^2$ ) as compared with only three of the subjects without cleft. A two factor analysis of variance (ANOVA) demonstrated that area changes during respiration are different for subjects with and without cleft ( $p$  less than 0.005), and that cleft nasal areas are smaller than noncleft areas for both phases of breathing ( $p$  less than 0.001). Inspiratory-expiratory differences between subjects with and without cleft are probably the result of

developmental defects, reparative surgery or both. (ABSTRACT TRUNCATED AT 250 WORDS) Author.

**Evidence of echoic memory with a multichannel cochlear prosthesis.** Jerger, S., Watkins, M. J. Division of Audiology, Baylor College of Medicine, Houston, Texas. *Ear and Hearing* (1988) Oct, Vol. 9 (5), pp. 231–6.

Short-term memory was examined in a subject with a multichannel cochlear prosthesis. Serial recall for lists of digits revealed what are widely regarded as the principal hallmarks of echoic memory, namely the recency effect and the suffix effect. Thus, probability of recall increased for the last one or two digits, except when a nominally irrelevant but spoken item was appended to the to-be-remembered list. It appears, therefore, that a multichannel cochlear implant can give rise to not only the perception of, but also an echoic memory for, speech. As with normal subjects, the suffix effect did not occur with a nonspeech suffix, implying that the echoic memory from the prosthesis shows normal sensitivity to the distinction between speech and nonspeech. Author.

**Occupational hearing loss: an aural rehabilitation program for workers and their spouses, characteristics of the program and target group (participants and nonparticipants).** Lalande, N. M., Riverin, L., Lambert, J. Faculte de medecine, l'Universite de Montreal. *Ear and Hearing* (1988) Oct, Vol. 9(5) pp. 248–55.

Until very recently aural rehabilitation programs designed specifically for workers with occupational hearing loss were nonexistent in the Province of Quebec. A pilot study has been conducted to test and develop suitable services for these workers and their spouses, and to explore the factors causing them to seek (or on the other hand, avoid) professional assistance. A trial rehabilitation program was set up for this purpose. Results of a questionnaire conducted among program participants showed that the main factors leading to enrollment in the program were the acknowledgement of moderate or severe hearing handicap and the recognition of the need for help (particularly with problems such as tinnitus and stress, and in using strategies to facilitate communication). These results lend support to the idea of adopting a new approach to rehabilitation services for occupational hearing loss workers. According to the findings of the study, only a very small percentage of workers and spouses participated in the rehabilitation program, despite measures taken to adapt it to their needs. Low enrollment in the rehabilitation program suggests the need for: (1) a more well-defined target population, (2) strategies to promote greater understanding, awareness, and acceptance of hearing handicap on the part of occupation hearing loss workers and peoples surrounding them, (3) education at the work place and in society in general to increase motivation and awareness of the benefits of aural rehabilitation services, (4) integration of the program within the general health program in the work place, (5) measures to enhance the credibility of professionals in the rehabilitation services, (6) general and specific programs and follow-up services, and (7) more accessible services. Author.

**Nasopharyngeal carcinoma with dermatomyositis.** Teo, P., Tai, T. H., Choy, D. Clinical Oncology Department, Prince of Wales Hospital, Shatin, Hong Kong. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 471–4.

From 1976 to 1986, 10 out of 1,154 consecutive nasopharyngeal carcinoma (NPC) patients were found to have dermatomyositis (DM). Their clinical features and treatment results were analysed. The skin manifestation was typical of DM and myopathy occurred in seven patients. All the tumor on presentation were early stage and locoregional control after radiotherapy was satisfactory. All but one patient had DM prior to diagnosis of NPC. The prognosis of NPC was not affected by DM with survival being comparable to contemporary controls. The complication of radiotherapy were unusually severe. Chronic radiation skin ulceration occurred in two patients and subcutaneous indurated fibrosis affecting both sides of neck occurred in all patients. Acute radiation mucositis was also prominent. Author.

**DNA flow cytometric analysis of human nasopharyngeal carcinoma in nude mice.** Cao, S. L., Liu, T. F., Wang, Z. H., Zhou, J., Huang, K. M., Yao, W. Q., Shen, X. L. Department of Radiation Oncology, Cancer Hospital and Institute, Shanghai Medical University, China. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 343–5.

The tissue from a patient with nasopharyngeal carcinoma has been transferred to nude mice (BALB/c), and has successfully been growing through twenty passages. The tumors in the nude mice and primary human tumor have been examined for the cellular DNA content by FCM and also conventional pathological examination, chromosome analysis, and EBV test. The tumor take rate varied markedly in different passages with a mean value of approximately 70 per cent, and showing a tendency to increase. The tumor doubling time within 6–12 weeks after transplantation of six tumors in 18 and 20 passages were 14.8 and 9.3 days respectively. However, the tumor volume at 12 weeks varied significantly, ranging from 438 to 1998 mm<sup>3</sup>. By FCM, it has been found that the values of DNA index were about the same in both primary tumor and the tumors in nude mice. The distribution of various phase cells in cell cycle was also about the same in both. In conclusion, the application of FCM to examine the cellular DNA content of the tumor in nude mice is a rapid and sensitive method, useful in the investigation on the stability of biological characteristics of human NPC in nude mice and in further studies on the effects by various therapeutic methods. Author.

**Intracavitary radiation treatment of nasopharyngeal carcinoma by the high dose rate afterloading technique.** Zhang, Y. W., Liu, T. F., Fi, C. X. Department of Radiation Oncology, Cancer Hospital and Institute, Shanghai Medical University, China. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 315–8.

Sixty-four patients with nasopharyngeal carcinoma were treated by various combinations of external irradiation with intracavitary radiotherapy using the high dose rate afterloading technique. The afterloading intracavitary radiation (AIR) was given as a routine boost or for residual or recurrent disease. The external irradiation dose varied from 45 to 70 Gy, whereas the AIR dose ranged from 10–50 Gy, depending on the nature of the primary nasopharyngeal lesion. The results were quite encouraging, although the longest follow-up so far has only been just over four years. Of 13 such cases that received external radiotherapy plus AIR as primary treatment, 12 have survived. However, of the nine cases who received AIR for local recurrence after external radiotherapy, only five survived. Of the total of 64 cases treated by AIR from June 1981 to May 1986, 54 are alive. No serious radiation sequelae have been observed. It can be concluded that AIR for nasopharyngeal carcinoma is indicated for boosting the dose to the nasopharyngeal cavity with appropriate reduction in external irradiation dose, and for residual or recurrent disease after primary external radiotherapy. Author.

**Long-term observation after radiotherapy for nasopharyngeal carcinoma (NPC).** Chen, W. Z., Zhou, D. L., Luo, K. S. Department of Radiation Oncology, Jiangsu Cancer Research Institute, Nanjing, China. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 311–4.

One thousand one hundred and twenty-seven cases of nasopharyngeal carcinoma were treated with routine radiotherapy from October 1969 to March 1976, of which 436 cases have survived for more than five years, 323 cases have survived for over 10 years. The follow-up rate was 98.4 per cent. The present paper analyzes the factors involved in these 436 cases. All patients were treated with tele60Co unit, and in the neck some cases were treated with orthovoltage therapy. The total dose to the primary lesion was 60–75 Gy in 6–8 weeks and in a few cases over 80 Gy were needed, and 50 Gy were applied bilateral cervical lymphatic chain. In this series of cases the 10-year overall survival rate was 28.7 per cent, with Stage I being 66.7 per cent, Stage II 46.5 per cent, Stage III 28.0 per cent, and Stage IV 18.6 per cent, respectively. Statistically, 68 cases died of cardiovascular and other diseases and should be eliminated for net survival calculations. Therefore, we could obtain an actual 10-year survival rate of 30.5 per cent. However, it should be noted that most of these cases were advanced, with Stage III, IV accounting for 82.3 per cent, thus at Stage I, II the 10-year survival rate was 48 per cent, while at Stage III, IV rate was down to 24.5 per cent, which was statistically significant ( $p$  less than 0.01).

Local and cervical recurrence as well as distant spread of diseases, for these cases started from the fifth to the tenth year after radiotherapy, the mortality caused by the above-mentioned three sites together was 76.9 per cent. According to these findings, we propose that follow-up after radiotherapy in NPC exceeds 10-years. Of the 323 NPC cases, 10 were nasopharyngeal local recurrence which were re-irradiated, accounting for 3.1 per cent. This paper shows that the three year survival rate in the local recurrence which were re-irradiated was 34.5 per cent, the five year survival rate was 14.8 per cent, and the 10-year survival rate was 11.5 per cent. The failure after re-irradiation was caused by local recurrence and metastasis with a mortality of 83.6 per cent. These results emphasize that the success of initial irradiation is important. Author.

**Radiation therapy of nasopharyngeal carcinoma: prognostic factors based on a 10-year follow-up of 1,302 patients.** Zhang, E. P., Lian, P. G., Cai, K. L., Chen, Y. F., Cai, M. D., Zheng, X. F., Guang, X. X. Dept. of Radiation Oncology, Cancer Hospital, Sun Yat-Sen University of Medical Sciences, Guangzhou, Guangdong, People's Republic of China. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 301-5.

One thousand three hundred and two patients with carcinoma of the nasopharynx were initially treated with radiation therapy at this hospital in 1974. The overall 1-, 3-, 5-, and 10-year survival rates were 89.86 per cent, 60.60 per cent, 47 per cent and 33.03 per cent respectively. At the end of the radiotherapeutic course the residual lesion rate was 10.52 per cent in the nasopharynx 17.27 per cent in cervical lymphnode. In about one-half of the cases with residual lesions, the masses disappeared without further treatment. Prognosis was not improved in the group with supplemental doses. The recurrence rates of the primary nasopharyngeal and metastatic cervical lesion were 18.43 per cent, and 16.12 per cent respectively within 10 years after initial treatment. The 10-year survival rate of the patients with a second course of radiotherapy was 15.04 per cent, higher than of those not retreated (4.9 per cent). Data of this group also reveal that the present pathological classification cannot reflect the degree of prognosis. Increase dosage or combination with chemotherapy did not improve the prognosis. Radiation encephalomyelic damage is discussed. Author.

**Comparison of continuous and split-course radiotherapy for nasopharyngeal carcinoma.** Luo, R. X., Tang, Q. X., Huang, Y. W., Liao, Y. P., Mou, X. D., Hu, Z. X. Dept. of Radiotherapy, Hunan Tumor Hospital, Changsha, China. *International Journal of Radiation Oncology, Biology and Physics* (1989) Feb, Vol. 16 (2), pp. 307-10.

From July 1977 through December 1980, a series of 1,882 cases with nasopharyngeal carcinoma (NPC) had their first definitive radiotherapy course at our department, 1,424 cases by continuous treatment regimen, and 458 cases by a split-course regimen. The interval of the split was 11-45 days, with an average of 28.6 days. Trials were non-randomized, but the treatment conditions for both groups were the same. The overall five year survival rate was 34.6 per cent, 35.4 per cent for the continuous group and 31.8 per cent for the split course group. The five year survival rate for Stage IV patients (squamous cell carcinoma Grade III) was 25.7 per cent (69/268) for the continuous group and 14.1 per cent (10/71) for the split-course group. Breaking down the cases by primary and cervical metastatic sites, for T3 cases, the five year local control rate for the primary site was 29.4 per cent (133/451) for the continuous group, and 18.6 per cent (22/118) for the split-course group. These differences are statistically significant ( $p$  less than 0.05). However, according to the data shown by this series, we can conclude that the split-course treatment regimen had no benefit over the continuous one when overall five year survival is considered. Author.

**Definitive radiotherapy for squamous cell carcinoma of the tonsillar fossa.** Wong, C. S., Ang, K. K., Fletcher, G. H., Thames, H. D., Peters, L. J., Byers, R. M., Oswald, M. J. Department of Clinical Radiotherapy, U.T.M.D. Anderson Cancer Center, Houston 77030. *International Journal of Radiation Oncology, Biology and Physics* (1989) Mar, Vol. 16 (3), pp. 657-62.

Between July 1968 and December 1983, 150 patients with previously untreated squamous cell carcinomas of the tonsillar fossa received megavoltage external beam irradiation with curative intent at U.T.M.D. Anderson Cancer Center. These patients were treated following a series of patients who had received radiotherapy between 1954 and May 1968. One hundred and thirty-

seven patients were treated with conventional fractionation, the mean doses to the primary being 64.3 Gy, 67.8 Gy, 70.2 Gy and 72.6 Gy for T1, T2, T3, and T4 lesions respectively. Thirteen patients were treated by altered fractionation schedules, seven by hyperfractionation, and six by a concomitant boost to the primary. Elective bilateral neck irradiation was routine in all patients. A planned neck dissection was performed in 26 patients. The five year actuarial overall and disease-specific survival rates were 47 per cent and 70 per cent, respectively. Absolute local control with a minimum of two years follow-up after irradiation were 94 per cent, 79 per cent, 58 per cent, and 50 per cent for patients with T1, T2, T3 and T4 disease respectively. A total of 37 patients had local treatment failure; in five of 18 surgical salvage was successful. Only four patients with primary disease control developed failure in the neck and none of those with N0 or N1 disease did so when the primary was controlled. Twelve patients developed transient self-limited bone exposure, seven developed osteoradionecrosis of the mandible, all requiring surgical resection. Most severe late complications occurred in patients with T3 and T4 lesions whose dose to the primary exceeded 67.5 Gy. Author.

**Evaluation of the efficacy and safety of loratadine in perennial allergic rhinitis.** Bruttman, G., Charpin, D., Germouty, J., Horak, F., Kunkel, G., Wittmann, G. Hospital Ste Marguerite, Marseille, France. *Journal of Allergy and Clinical Immunology* (1989) Feb, Vol. 83 (2 Pt 1), pp. 411-6.

Loratadine, a new nonsedating antihistamine, was evaluated for efficacy and safety in 228 patients with perennial allergic rhinitis. Taken at a dose of 10 mg. once daily, loratadine was significantly more effective than placebo and comparable to terfenadine, 60 mg. taken twice daily, in reducing combined symptom scores in this patient population. Efficacy was maintained throughout the 28-day course of treatment. The overall incidence of side effects with loratadine was low (14 per cent) with few occurrences of sedation (3 per cent) and dry mouth (4 per cent). Author.

**Seasonal variation in specific IgE antibodies of grass-pollen hypersensitive patients depends on the steady state IgE concentration and is not related to clinical symptoms.** Somville, M. A., Machiels, J., Gilles, J. G., Saint-Remy, J. M. Institute of Cellular and Molecular Pathology, Universite Catholique de Louvain, Brussels, Belgium. *Journal of Allergy and Clinical Immunology* (1989) Feb, Vol. 83 (2 Pt 1), pp. 486-94.

To evaluate parameters that determine the serum titer of specific anti-allergen IgE antibodies, we graded the clinical symptoms of 78 grass-pollen hypersensitive patients during two consecutive seasons, while serum total and specific anti-grass-pollen IgE antibodies were titrated every two weeks. Correlation studies of clinical symptoms, grass-pollen counts, and specific IgE antibodies demonstrated that (1) bronchial asthma and nasal symptoms cannot be predicted on the basis of pre-seasonal IgE titers, (2) clinical symptoms are not related to seasonal anti-grass-pollen IgE antibodies, (3) anti-grass-pollen and total IgE antibodies are not directly dependent on the air pollen point concentration, (4) increase in specific IgE antibodies during the pollen season is strongly correlated to pre-seasonal specific IgE titers, and (5) individual fluctuations of specific IgE antibody titers during the pollen season are proportional to pre-seasonal specific IgE titers. These findings suggest that titration of serum-specific IgE antibodies is of little use in predicting or monitoring the clinical symptoms of grass-pollen hypersensitive patients, since IgE titers strongly depend on individual immune responsiveness. Author.

**Diagnosis of nasopharyngeal tuberculosis by detection of tuberculostearic acid in formalin fixed, paraffin wax embedded tissue biopsy specimens.** Arnold, M., Chan, C. Y., Cheung, S. W., Van-Hasselt, C. A., French, G. L. Department of Morbid Anatomy, Chinese University of Hong Kong. *Journal of Clinical Pathology* (1988) Dec, Vol. 41 (12), pp. 1334-6.

The use of gas chromatography and mass spectrometry with selected ion monitoring detected tuberculostearic acid (TBSA) in 10 of 12 formalin fixed, paraffin wax embedded nasopharyngeal and head and neck biopsy specimens from patients with confirmed tuberculosis and carcinoma, and in one of 50 control specimens (giving a sensitivity of 83 per cent and a specificity of 98 per cent). The two false negative cases had very small tissue fragments and the patient with a false positive result may have had pulmonary tuberculosis. Tuberculostearic acid (TBSA) was also detected in

nine of 16 specimens from the head and neck region with non-caseating granulomas suspected, but not confirmed, to be tuberculosis. It is concluded that nasopharyngeal tuberculosis is relatively common in Hong Kong and should be considered when biopsy specimens show granulomas. The detection of TBSA in tissue biopsy specimens is a useful, rapid method for the diagnosis of tuberculosis and other mycobacterial infections, and can be conveniently performed within two days on formalin fixed and paraffin wax embedded material. Author.

**Aspergillosis of the nose and paranasal sinuses.** Milroy, C. M., Blanshard, J. D., Lucas, S., Michaels, L. Department of Histopathology, University College and Middlesex School of Medicine, London. *Journal of Clinical Pathology* (1989) Feb, Vol. 42 (2), pp. 123–7.

Fulminant aspergillosis was diagnosed on nasal biopsy in a 49 year old man who had features of an aspergilloma. Further postmortem examination of this area was performed and the results were contrasted with the histological features of other *Aspergillus* infections. The nasal biopsy specimen and postmortem examination showed infiltrating *Aspergillus* hyphae with tissue necrosis and little inflammatory response. The hyphae were easily seen with routine stains. This contrasts with the findings in invasive aspergillosis where there is fibrosis and a granulomatous response to the *Aspergillus* hyphae. The hyphae are seen in giant cells using fungal stains. In the saprophytic infections aspergilloma and allergic *Aspergillus* sinusitis there is no tissue invasion or destruction. *Aspergillus* infections of the nose and paranasal sinuses often require biopsy for accurate diagnosis. As treatment varies pathologists need to be able to distinguish the different patterns of infection. Author.

**Toxoplasmosis in heart and lung transplant recipients.** Wreghitt, T. G., Hakim, M., Gray, J. J., Balfour, A. H., Stovin, P. G., Stewart, S., Scott, J., English, T. A., Wallwork, J. Clinical Microbiology, Addenbrooke's Hospital, Cambridge. *Journal of Clinical Pathology* (1989) Feb, Vol. 42 (2), pp. 194–9.

Of the first 250 heart and 35 heart and lung transplant recipients at Papworth Hospital, Cambridge, who survived for more than one month after transplantation, 217 heart and 33 heart and lung patients were investigated serologically for evidence of *Toxoplasma gondii* infection. Six patients acquired primary *T gondii* infection, most probably from the donor organ. Five patients experienced *T gondii* recrudescence, two of whom had recovered from primary infection a few years earlier. Two patients died from primary *T gondii* infection and the severity of symptoms in the other patients with primary infection was related to the amount of immunosuppressive treatment. Prophylaxis with pyrimethamine (25 mg. a day for six weeks) was introduced for *T gondii* antibody negative transplant recipients who received a heart from a *T gondii* antibody positive donor after the first four cases of primary toxoplasmosis. Of the seven patients not given pyrimethamine, four (57 per cent) acquired primary *T gondii* infection. This compared with two of the 14 patients (14 per cent) given prophylaxis. Author.

**An epidemiologic study of respiratory health effects in a group of North Carolina furniture workers.** Goldsmith, D. F., Shy, C. M. Department of Epidemiology, University of North Carolina, Chapel Hill 27514. *Journal of Occupational Medicine* (1988) Dec, Vol. 30 (12), pp. 959–65.

Woodworking is known to be associated with nasal cancer and with western red cedar asthma, but research is inconsistent with regard to respiratory health effects among furniture workers. The authors tested the hypotheses that employment in a North Carolina hardwood furniture plant was related to the prevalence of respiratory symptoms and to impairment of pulmonary function. Chronic symptom prevalence generally showed no significant differences between wood dust jobs and control exposures; however, frequent sneezing and eye irritation were significantly ( $P$  less than 0.05) correlated with wood dust exposed jobs; in both cases the prevalence odds ratio was 4.0. Peak flow was the only pulmonary function measure that correlated significantly ( $P = 0.0345$ ) with wood dust employment. The difference in forced vital capacity suggested a weak association with current employment in finishing jobs, whereas the difference in peak flow showed a modest correlation with the fraction of particulate less than 10 microns. The relevance of the present associations to regulatory changes and research needs is discussed. Author.

**Osteoarthritis as the cause of craniomandibular pain and dysfunction: a unifying concept.** Stegenga, B., de Bont, L. G., Boering, G. Department of Oral and Maxillofacial Surgery, University of Groningen, The Netherlands. *Journal of Oral and Maxillofacial Surgery* (1989) Mar, Vol. 47 (3), pp. 249–56.

It has been demonstrated that osteoarthrotic changes in the temporomandibular joint (TMJ) and in other synovial joints show a similar course, both clinically and (ultra) microscopically. Initially, cartilage changes and possibly also changes in the synovial membrane set up a vicious cycle of cartilage breakdown accompanied by attempts at repair. When the degradative process exceeds the response of repair, the osteoarthrotic disorder progresses into clinically detectable stages. Frequently, the gliding capacity of the articular disc is also impaired, giving rise to an internal derangement. In this article, a concept is presented in which it is suggested that in many cases of craniomandibular pain and dysfunction TMJ osteoarthritis is the basic disorder. Author.

**Nasopharyngeal impression technique for fabrication of a radiation carrier.** Cano, E. R., Seckinger, R. J., Zaki, H., Yoder, V. E. University of Pittsburgh, Joint Radiation Oncology Center, Pa. *Journal of Prosthetic Dentistry* (1989) Mar, Vol. 61 (3), pp. 340–2. A new technique for intracavitary application of Iridium 192 seeds in carcinoma of the nasopharynx is described. This technique allows for accurate construction of a nasopharyngeal carrier that permits the radiotherapist to deliver an adequate dose of irradiation to the nasopharynx. Author.

**Impairment of vertebral artery flow caused by extrinsic lesions.** George, B., Laurian, C. Hospital Lariboisiere, Paris, France. *Neurosurgery* (1989) Feb, Vol. 24 (2), pp. 206–14.

In a consecutive series of 71 cases of extrinsic lesions involving the vertebral artery (VA), 51 patients presented with external compression of this vessel. The compressive agents included 34 tumors, four osteophytes, five fibrous bands, four traumatic lesions, two neural elements, and two infectious processes. The main site was the second portion of the VA (C2–C6) (30 of 51 patients). Compression always induced at least significant stenosis, and in eight patients caused complete occlusion. The compression was either permanent (44 patients) or intermittent (seven patients). Symptoms were observed in 11 patients, including two with permanent deficits. Surgical release of compression was performed each time symptoms could be explained by a reduction in VA flow and also when the compressing agent needed to be removed, as in the cases involving tumors. VA decompression was achieved by direct approach in 37 patients, by reduction and fixation of a traumatic dislocation in two patients, and by distal revascularization in four patients. Medical treatment or roentgenotherapy was used in the other patients. Results were excellent in all but two patients, who died from traumatic and ischemic lesions, respectively. Therefore, it seems important to identify external causes of compression of the VA for two reasons: 1) to suppress symptoms of vertebrobasilar insufficiency when their relation to VA compression is clearly established, and 2) to remove compressive agents like tumors safely while preserving the VA. Author.

**Does intraoperative monitoring of auditory evoked potentials reduce incidence of hearing loss as a complication of microvascular decompression of cranial nerves?** Moller, A. R., Moller, M. B. Department of Neurological Surgery, University of Pittsburgh School of Medicine, Pennsylvania. *Neurosurgery* (1989) Feb, Vol. 24 (2), pp. 257–63.

During a 14-month period, 129 individuals underwent 140 operations for microvascular decompression to relieve hemifacial spasm, disabling positional vertigo, tinnitus, or trigeminal neuralgia at our institution. Seven patients were operated upon twice on the same side and four were operated upon on both sides at different times. In each case, the brainstem auditory evoked potentials were monitored intraoperatively by the same neurophysiologist. In 75 of these operations, compound action potentials were also recorded from the exposed 8th nerve. Comparison of speech discrimination scores before the operation and at the time of discharge showed that at discharge, discrimination had decreased in seven patients by 15 per cent or more and increased in four patients by 15 per cent or more, in two patients by as much as 52 per cent. Essentially similar results were obtained when preoperative speech discrimination scores were compared with results obtained from the 87 patients who returned for a follow-up visit between

three and six months after discharge. Only one patient lost hearing (during a second operation to relieve hemifacial spasm). Another patient (also operated upon to relieve hemifacial spasm) suffered noticeable hearing loss postoperatively, but had recovered nearly normal hearing by four months after the operation. Nine patients had an average elevation of the hearing threshold for pure tones in the speech frequency range (500 to 2000 Hz) of 11 dB or more at four to five days after the operation; eight of these had fluid in their middle ears that most likely contributed to the hearing loss. Threshold elevations occurred at 4000 Hz and 8000 Hz in 19 and 29 ears, respectively. Author.

**Ectopic prolactinoma within the sphenoid sinus.** Heitzmann, A., Jan, M., Lecomte, P., Ruchoux, M. M., Lhuître, Y., Tillet, Y. Service d'endocrinologie, Hospital Bretonneau, Tours, France. *Neurosurgery* (1989) Feb, Vol. 24 (2), pp. 279–82.

A case of an ectopic prolactin-producing tumor located within the sphenoid sinus is reported. It was discovered in a girl who experienced secondary amenorrhea without galactorrhea. We discuss the different diagnoses proposed before immunocytochemical staining results were available. This case presented unusual radiological, surgical, and histopathological aspects. Author.

**Maxillary metastasis of transitional cell carcinoma: report of a case.** Cohen, D. M., Green, J. G., Diekmann, S. L., Howell, R. M., Harn, S. D. Department of Pathology, Diagnosis and Radiology, University of Nebraska Medical Center, College of Dentistry. *Oral Surgery, Oral Medicine, Oral Pathology* (1989) Feb, Vol. 67 (2), pp. 185–9.

Metastases to the maxilla are extremely rare, and only 64 cases of histologically proven maxillary metastases can be found in the English-language literature. This article reports the first case of metastatic transitional cell carcinoma of the urinary bladder to the maxilla. The distribution of proven cases of maxillary metastasis and the possible anatomic pathways for this metastasis are discussed. Author.

**Metastatic adenocarcinoma of the colon presenting as periradicular periodontal disease: a case report.** Naylor, G. D., Auclair, P. L., Rathbun, W. A., Hall, E. H. Naval Dental School, Naval Medical Command National Capital Region. *Oral Surgery, Oral Medicine, Oral Pathology* (1989) Feb, Vol. 67 (2), pp. 162–6.

Metastases to the jaws account for only one per cent of all malignant tumors of the oral cavity. Consequently the diagnosis of metastasis to the mandible requires a high degree of clinical suspicion and the use of a systematic diagnostic approach. In this case report a patient sought treatment for what appeared clinically and radiographically as periradicular periodontal disease. However, because the patient had a medical history of adenocarcinoma of the colon five years previously, metastasis to the jaws was included in the differential diagnosis. Metastasis to the jaws may resemble periodontal disease or many of the other benign and malignant conditions that affect the jaws, thus making the correct radiographic diagnosis difficult. Ultimately histologic evaluation is essential to make a definitive diagnosis. Author.

**Auditory brainstem responses and clinical follow-up of high-risk infants.** Kramer, S. J., Vertes, D. R., Condon, M. Department of Otolaryngology, University of Texas Medical Branch, Galveston. *Pediatrics* (1989) Mar, Vol. 83 (3), pp. 385–92.

Auditory brainstem response (ABR) evaluations were performed on 667 high-risk infants from an infant special care unit. Of these infants, 82 per cent passed the ABR. Those infants who failed the ABR were classified into two groups, those who failed at 30 dB hearing level and those who failed at 45 dB hearing level. All of the infants were encouraged to return for otologic/audiologic follow-up in one, three or six months, depending on the initial ABR results. All of the infants with severe hearing impairments came from the group who failed at 45 dB hearing level. The incidence of severe sensorineural hearing impairment in this population was estimated to be 2.4 per cent. For the group that failed at 30 dB hearing level, 80 per cent of those who were abnormal at follow-up were considered to have conductive hearing disorders and 20 per cent had mild sensorineural hearing impairments. In addition, infants enrolled in a parent-infant program for hearing impaired by six months of age were from the ABR program; however, several infants entered the parent-infant program at a relatively late age

because they did not meet the high-risk criteria, they were from other hospitals, or they were not detected by the ABR program. Author.

**Randomized trial of taurine supplementation for infants less than or equal to 1,300-gram birth weight: effect on auditory brainstem-evoked responses.** Tyson, J. E., Lasky, R., Flood, D., Mize, C., Picone, T., Paule, C. L. Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas 75235. *Pediatrics* (1989) Mar, Vol. 83 (3), pp. 406–15.

Taurine may be important to the developing eye and brain of the small preterm infant. A blinded randomized trial was conducted to determine whether taurine supplementation of healthy infants of less than or equal to 1,300 g birth weight until their discharge from the hospital increases their growth rate, neurobehavioral development, electroretinographic development, or maturation of auditory brainstem-evoked responses. Infants were fed with Similac Special Care as desired, which was prepared to contain less than 5 mg/L of taurine or 45 mg/L of taurine, a concentration similar to that of human milk. Infants who did not receive taurine supplementation ( $n = 19$ ) and those who did ( $n = 18$ ) were similar with respect to condition at study entry, caloric intake, and growth rates throughout the study, and electroretinographic findings and scores on the Brazelton Behavioral Assessment Scale at 37 weeks' postmenstrual age. Infants who received taurine supplementation had greater overall plasma taurine concentrations. The group receiving taurine supplementation also had more mature auditory-evoked responses at 37 weeks' postmenstrual age with a modest (0.2 to 0.5 ms.) but consistent reduction ( $P$  less than 0.05) in the interval between stimulus and response at two different stimulation rates. Although further study is needed, taurine intake appears to influence auditory system maturation of preterm infants. Author.

**Some relationships between hearing aid frequency response and speech discrimination of profoundly deaf children. Pilot study.** Dyrland, O. Technical-Audiological Department, Fredericiaskolen, Denmark. *Scandinavian Audiology* (1988), Vol. 17 (4), pp. 201–5.

A significant improvement in auditory-visual speech discrimination has been established for a group of profoundly deaf children with hearing losses in the range from 85 to 120 dB HL (pure tone average (500, 1,000, 2,000 Hz) by increasing the low frequency hearing aid gain by approximately 10 dB and reducing the high frequency gain by approximately the same magnitude. The improvements were concentrated in the hearing loss range from 95 to 115 dB HL. A tendency for improvement in auditory discrimination was indicated as well. Author.

**In-the-ear hearing aids. The use and benefit in the elderly hearing-impaired.** Henriksen, J., Noring, E., Christensen, B., Pedersen, F., Parving, A. Department of Audiology, Bispebjerg Hospital, Copenhagen, Denmark. *Scandinavian Audiology* (1988), Vol. 17 (4), pp. 209–12.

Preliminary clinical experiences with in-the-ear hearing aids (ITE-HAs) have been promising, and a beneficial effect has been demonstrated in younger hearing-impaired subjects. However, the subjects applying for audiological examination and rehabilitation are predominantly elderly people (i.e. greater than or equal to 70 years). The present questionnaire examination was performed in order to evaluate the use and benefit of ITE-HAs also in the elderly hearing-impaired, and compare with the effect in younger subjects. An extensive questionnaire was sent six months after hearing aid fitting to all patients fitted with ITE-HAs. A total number of 693 subjects corresponding to 80 per cent responded to the questionnaire. Seventy per cent of the patients are greater than or equal to 70 years and 23 per cent are above the age of 80 years. The results demonstrate that the elderly hearing-impaired use the hearing aids predominantly in situations when listening to television and in small groups; 64 per cent use their hearing aids the whole day and only 6 per cent never use the aids; with increasing age were indicated increasing handling problems, both concerning change of battery, handling of volume control, and insertion of the aid into the ear canal. Only 8 per cent of the patients were dissatisfied with the cosmetic appearance of the hearing aids, the dissatisfaction being more frequent in the young age group below 70 years (16 per cent) than above the age of 70 years (9 per cent). It is concluded that also the elderly hearing-impaired use and benefit from ITE-HAs. Author.

**Relations between audiometrical thresholds of potential cochlear implant patients and their performance in preoperative psychophysical tests with electrical stimulation.** Brokx, J. P., Hombergen, G., Coninx, F. University Hospital Nijmegen, The Netherlands. *Scandinavian Audiology* (1988), Vol. 17 (4), pp. 217–22.

Part of our selection procedure for cochlear implant candidates is the preoperative electrical stimulation of the cochlea. With a trans-tympanic needle, placed as closely as possible to the round window, the dynamic range for a number of frequencies is measured and a frequency identification test and a temporal difference limen test are carried out. Our first series of preoperative tests suggests a relationship between the audiometrical pure-tone thresholds, the dynamic range of electrical stimulation and the performance on the temporal difference and frequency identification test. For the preoperative electrical stimulation tests, a relatively good pure-tone average may indicate a wide dynamic range, a short temporal difference limen and a high score in the frequency identification test. Author.

**The relationship of SP and AP findings to hearing level in Meniere's disease.** Mori, N., Asai, H., Sakagami, M. Department of Otolaryngology, Kagawa Medical School, Osaka, Japan. *Scandinavian Audiology* (1988), Vol. 17 (4), pp. 237–40.

The relationship of summing potential (SP) and action potential (AP) to hearing threshold level was examined in 46 patients with a unilateral Meniere's disease. The SP and AP were recorded with the extratympanic method. The ratio of -SP and AP amplitudes in affected ears to those in contralateral ears (-SP and AP amplitude ratio) at 80 dB nHL of click stimuli was used as parameters of analysis in order to diminish the variability of SP and AP amplitudes among individuals. The results revealed that there is no relationship between -SP amplitude ratio and the hearing threshold level at any frequency, whereas AP amplitude ratio has a significant negative correlation ( $r = -0.419$ ,  $p$  less than 0.01) to the average hearing threshold level at 2–8 kHz, but not at 0.25–1 kHz ( $p$  greater than 0.05). The results indicate that an increase in the ratio of -SP amplitude to AP amplitude with the deterioration of the hearing at higher frequencies reported by our previous study (Mori *et al.*, 1987) results from a decrease in AP amplitude rather than an increase in SP amplitude. The dependence of AP amplitude on hearing threshold level and the independence of -SP amplitude on hearing threshold level suggests that the mechanism underlying the increase in -SP amplitude may be different from that causing the hearing loss in Meniere's disease. Author.

**Ototoxicity of cisplatin in gynaecological cancer patients.** Laurell, G., Borg, E. Department of Physiology, Karolinska Institute, Stockholm, Sweden. *Scandinavian Audiology* (1988), Vol. 17 (4), pp. 241–7.

The ototoxic side effect of a moderate dose of cisplatin was studied by regular audiometric investigations in 186 women with gynaecologic cancer. Cisplatin was given in a dose of 50 mg/m<sup>2</sup> body surface by intravenous infusion every four weeks. High-frequency hearing loss occurred in 40 patients (22 per cent), but in no single case was a significant change observed in the frequency range of 0.5–2 kHz. Older patients showed a statistically significant greater incidence of audiometric changes, but the pretreatment audiogram was not a predictor of ototoxic changes. It is concluded that a moderate dose of cisplatin does not effect the ability to communicate. Author.

**Electronystagmographic findings in profoundly hearing-impaired children.** Suonpaa, J. Department of Otolaryngology, Turku University Hospital, Finland. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 111–3.

Electronystagmographic recordings revealed spontaneous or positional nystagmus in 62 (43 per cent) of 144 profoundly hearing-impaired children. Uni- or bilaterally depressed caloric reactions were found in 78 (54 per cent) subjects. Caloric reactions were significantly lower when the cause of deafness was of perinatal or postnatal origin. Depressed caloric reactions were common findings (81 per cent) in the group with poorest hearing (greater than 100 dB ISO). The examination revealed a high incidence of partial vestibular damage in children attending schools for the deaf and it stresses the need for rehabilitation in this field as well. Author.

**Auditory brain map, effects of age.** Borg, E., Spens, K. E., Tonquist, I. Department of Audiology, Karolinska Hospital, Stockholm, Sweden. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 161–4.

Brain maps of late auditory evoked cortical potentials were obtained with the Brain Atlas III system in school-aged children and adults. All subjects were judged as neurologically normal, right-handed, and having normal hearing. The stimulus was a 100 ms. burst of 500 Hz pure tone at 75 dB HL presented separately to the left and right ear. The results showed a frontoparietal maximum of negative activity corresponding to N1 and designated as the focus of N1 (FN1). FN1 had latencies of 108 ms. (left stimulation (stim) and 113 ms. (right stim) and amplitudes of -6.0 microV (left stim) and -4.8 microV (right stim) in children and a latency of 90 ms. and an amplitude of -6.5 microV in adults. Among the children, more has ipsilateral than contralateral FN1, usually on the right side. The distance between the centers of gravity of FN1s obtained on stimulation of the two ears was significantly smaller in the maps of children than adults ( $p$  less than 0.01). The present findings indicated that the topography of the electrical activity changes during adolescence. Author.

**Spect-studies of the brain with stimulation of the auditory cortex.** Schadel, A. ENT Clinic, University of Mannheim, West Germany. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 177–80.

The radiopharmaceutical N-isopropyl-p-J-Amphetamin (IMP) permits a new approach in the study of cerebral perfusion and function. We advanced the hypothesis for an increased IMP-uptake on auditory cortex during stimulation by white noise. Auditory stimulation activates the auditory cortex. This is marked by an increased IMP-uptake. IMP-uptake by the auditory region on the left side during stimulation on the right ear is another evidence of the crossing of central auditory pathways to the contralateral side. Author.

**Radioanatomy of cochlear and stapedial otosclerosis.** Wilbrand, H. F. Department of Diagnostic Radiology, University Hospital, Uppsala, Sweden. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 181–3.

Otospongiosis of the otic capsule is a primary focal disease, which can be reproduced by both conventional multidirectional tomography and computed tomography. The final stage of otospongiosis, otosclerosis has a complete different appearance in radiography. When the otospongiosis focus is located at the oval window a progressive conductive hearing loss will result, which in its final stage will have the character of otosclerosis with fixation of the stapes in the oval window. The radiographic diagnosis with either conventional multidirectional tomography or CT is more or less pathognomonic and will easily confirm the audiologic examinations results. The diagnosis of otospongiosis by computed tomography is advantageous to conventional tomography. With both methods high resolution technique is mandatory for safeguarding both diagnosis and evaluation of the extent of the lesion. Minor otospongiotic or otosclerotic lesions of the oval window with fixation of the footplate are still a challenge to high resolution radiographic imaging. In most cases stapedial otosclerosis is advantageously diagnosed by otoscopy and audiometry. High resolution radiographic imaging is a valuable confirmative method to corroborate clinical diagnoses and differentiating the disease from other conditions based on other morphologic lesions. Author.

**Auditory evoked potentials test battery related to magnetic resonance imaging for multiple sclerosis patients.** Antonelli, A. R., Bonfoli, F., Cappiello, J., Peretti, G., Zanetti, D., Capra, R. Oto-Rhino-Laryngologic Clinic, University of Brescia, Italy. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 191–6.

The results of the recording of the Auditory Brainstem Responses (ABR) in 32 patients with 'definite' multiple sclerosis (MS) according to Poser *et al.* (1983) were contrasted with the brain stem anatomic lesions evidenced by Magnetic Resonance Imaging (MRI) and with the neurologic signs and symptoms found at clinical examination (BS). Twenty-one patients showed ABR abnormalities (65.5 per cent); in 15 cases MRI visualized demyelination plaques in the brain stem (46.8 per cent); 12 patients had neurological signs of brain stem involvement (37.5 per cent) at the time of the electrophysiological and radiological assessment. When the observation was restricted to the group of 21 patients with past or

present BS neurological signs, ABR sensitivity resulted 81 per cent (17/21), while MRI obtained a value of 57 per cent (12/21). Author.

**Borrelia infection in patients with vertigo and sensorineural hearing loss.** Hanner, P., Rosenhall, U., Kaijser, B. Department of ENT, Sahlgren's Hospital, University of Gothenburg, Sweden. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 201-3.

Tick-borne *Borrelia* infection gives rise to symptoms from different organs. Neurologic manifestations are common. The aim of this study was to evaluate to what extent the cochleovestibular functions are involved in this disease. A total of 73 patients with vertigo were studied. The patients had Meniere-like conditions, positional vertigo or unilateral loss of the vestibular function. Antibodies in serum to the *Borrelia* spirochete were determined in the acute and convalescent periods. Ten patients, 14 per cent, had serological evidence of Borreliosis. All these patients had severe vertigo and four of them had sensorineural hearing loss, furthermore they had positional nystagmus and the nystagmus showed patterns of both central and/or peripheral vestibular lesions. Treatment with high doses of penicillin-G was favourable in five of the patients with vertigo and in one patient with sensorineural hearing loss. *Borrelia* infection is an etiological factor which should be considered in patients suffering from vertigo and/or sensorineural hearing loss of unknown origin. Author.

**Audiologic evaluation in Charcot-Marie-Tooth disease.** Perez, H., Vilchez, J., Sevilla, T., Martinez, L. Department of Otolaryngology and Neurology, Hospital La Fe, Valencia, Spain. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 211-3.

We have carried out a hearing study with pure tone audiometry and ABR of 39 patients affected by hereditary motor and sensory neuropathy or Charcot-Marie Tooth disease. We have noticed a hearing deficiency in a significant percentage of cases (28 per cent). We attribute the abnormalities to disorders in the area of the VIIIth nerve and of the brainstem. No significant differences appear in the results obtained between patients belonging to type I and patients belonging to type II of this disease. Author.

**Latency of the auditory brainstem response (ABR) and head size. Evidence of the relationship by means of radiographic data.** Conti, G., Modica V., Castrataro, A., Fileni, A., Colosimo, C. Jr. Institute of ENT Clinic, Catholic University, Rome, Italy. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 219-23.

The role of head size to determine the inter-subject variability of the auditory brainstem response (ABR) was investigated in 32 normally hearing adults (19 females, 13 males, aged 18 to 52). The ABRs were evaluated in respect to the absolute latency of waves I, III and V and the interpeak latencies I-III, III-V and I-V. Plain films of the skull (three views) were also taken of each subject and several measures were calculated in order to obtain an evaluation of the dimensions of both the most rostral parts of the skull and of the posterior fossa. The radiographic data as well as the ABR parameters showed significantly shorter values in females than in males. There was a strong positive correlation between the two variables when a linear regression procedure was applied. The highest value of the correlation coefficient ( $r = 0.8$ ) was found in the relationship between the wave V latency and the posterior fossa measures. High  $r$  values and similar factors in the regression equa-

tion were also found after considering the subjects separately according to sex. These results show that the ABR latencies linearly increase together with the skull size as it appears in the X-rays, regardless of the subject's sex. We can consequently deduce that the length of the neural pathway is the main factor of inter-sex variability of the response. Author.

**High frequency audiometric changes after stapedectomy.** Domenech, J., Carulla, M. E.N.T. Department, Faculty of Medicine, University of Barcelona, Spain. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 233-5.

It is possible that, when the labyrinth is opened in stapedectomy, some form of alteration may occur within it, even if it is not detected postoperatively by routine audiometry. Injuries against the inner ear usually impair the hearing at the highest frequencies. We can assess bone-conduction hearing up to 20 kHz by means of a high-frequency audiometer. Twenty-five patients were examined with conventional and high-frequency audiometry (HFA) before and after successful stapedectomy. Conventional audiometry showed a good postoperative improvement in the low and middle frequencies. HFA showed a lowering of the auditory thresholds above 8 kHz in 20 patients (83.4 per cent), which was not evident with conventional audiometry because it occurred above its upper frequency limit. HFA is a very valuable means of assessing the results of ear surgery, and can be used to compare different surgical techniques. Author.

**Auditory disorders in Down's syndrome.** Davies, B. Department of Paediatric Audiology, Charing Cross Hospital, London, United Kingdom. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 65-8.

This paper reports a study of hearing and middle-ear function in 100 Down's Syndrome individuals, and the findings are compared with those of previous studies. The high incidence of middle-ear dysfunction and the associated conductive hearing loss, and the progressive sensorineural loss frequently found in Down's Syndrome are discussed. The role of surgical treatment and the use of hearing aids in the management of deafness in Down's Syndrome are reviewed. Author.

**Unilateral total deafness as a complication of the measles-mumps-rubella vaccination.** Nabe-Nielsen, J., Walter, B. Audiological Department, Aalborg Hospital, Denmark. *Scandinavian Audiology Supplement* (1988), Vol. 30, pp. 69-70.

A seven year old girl developed unilateral total loss of hearing 13 days following MMR vaccination. The live, attenuated mumps-virus component in the virivac vaccine is suspected to be the cause of the injury. Author.

**Temporal lobectomy in epilepsy. A report of two cases.** Ames, F. R., de Villiers, J. C. Department of Psychiatry, University of Cape Town. *South African Medical Journal* (1989) Feb 4, Vol. 75 (3), pp. 130-2.

Two South African patients with frequent drug-resistant complex partial seizures arising from the left temporal lobe were referred to the UK for anterior temporal lobectomy. Both patients are now seizure-free, the first 3½ years and the second 2½ years after operation. Clinical details are presented. Author.

