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Abstract Selection

Specific IgE and IgG antibody responses in children to timothy pollen components during immunotherapy. Nordvall, S. L., Renck, B., Einarsson, R. Department of Paediatrics, St Goran's Children's Hospital, Stockholm, Sweden. *Allergy* 1989 Aug, Vol. 44 (6), pp. 380–4.
Fourteen children with timothy grass pollinosis were given immunotherapy (IT) for three years with a purified and characterized timothy grass pollen preparation or a crude aqueous timothy pollen extract. Crossed radioimmunoelectrophoresis (CRIE) showed that 75 per cent of the children under 11 years of age developed new specificities of IgE antibodies against timothy antigens, in contrast to older children, where no development of IgE antibodies against new timothy antigens could be detected. IgE antibodies were only detected against antigens formerly known as allergens. Timothy-specific IgG antibodies increased in most children during hyposensitization against the major allergens Ag 19 and Ag 24/25 and several other IgE-binding timothy antigens. Author.

House dust mite, Dermatophagoides pteronyssinus, and its allergens: effects of washing. Andersen, A., Roesen, J. Institute of Biology and Chemistry, Roskilde University, Denmark. *Allergy* 1989 Aug, Vol. 44 (6), pp. 396–400.
The study was undertaken to evaluate the effect washing at various temperatures would have on the house dust mite, Dermatophagoides pteronyssinus, and its allergens. Young and old mite cultures underwent a simulated washing programme. To record the number of live mites prior to and after washing a new counting method was applied. The findings demonstrated that although washing reduced the number of live mites, a washing programme at minimum temperature 58 degrees C was required in order to achieve complete extermination of the house dust mites. A distinct protein loss was observed when washing at higher temperature, thus further reducing the total allergen pool without loss of allergen activity as determined by direct RAST. Author.

Thirty-year experience with 457 radical neck dissections in cancer of the mouth, pharynx, and larynx. Khafif, R. A., Gelbfish, G. A., Attie, J. N., Tepper, P., Zingale, R. Department of Surgery, Maimonides Medical Center, Brooklyn, New York 11219. *American Journal of Surgery* 1989 Oct, Vol. 158 (4), pp. 303–7; discussion 308.
A retrospective analysis of 457 radical neck dissections (RNDs) performed for epidermoid cancers of the head and neck was performed. There was a 27 per cent overall neck recurrence rate, 17 per cent being confined to the neck. Only 5 per cent occurred in the ipsilateral dissected neck. Failure in the neck correlated well with the node stage at the time of surgery, but was not affected by the size of the primary tumor, the timing of the RND, or the type of RND performed. Treatment of neck recurrences was predominantly surgical, with a 56 per cent local control and a 24 per cent disease-free survival rate. Overall disease-free survival was 53 per cent, ranging from 68 to 29 per cent according to the node stage. Survival was further affected by the size of the primary tumor and failure to control disease in the neck; it was not affected by the type of RND or its timing, or the addition of radiotherapy. Overall recurrence after modified RND was 28 per cent. Increased neck recurrences were noted only in N2 and N3 cases, although survival was not affected even in these late stages. Author.

Prognostic factors in squamous cell carcinoma of the larynx. Eiband J. D., Elias E. G., Suter C. M., Gray W. C., Didolkar, M. S. Department of Surgery, University of Maryland, Baltimore. *American Journal of Surgery,* Oct, Vol. 158 (4), pp. 314–7.
One hundred fifty-two patients with squamous cell carcinoma of the larynx were studied. The disease-free survival and overall survival rates were correlated to 12 variables. Seven of them seemed to affect survival. Poor prognosis was related to (1) advanced stage of disease at diagnosis, (2) cord fixation and massive local invasion, (3) ulceration of the primary tumor, (4) lymph node metastases at diagnosis, (5) glottic lesions had a poorer prognosis than supraglottic ones, (6) locoregional recurrences, and (7) male gender. However, most of these significant differences were in disease-free survival, and only primary tumor staging; lymph node status; and locoregional recurrences affected overall survival. On the other hand, the other five variables showed no effect on either disease-free or overall survival rates. These included age, race, cell differentiation, type of recurrence, and the initial definitive therapeutic modality. Author.

Management of advanced glottic carcinomas. Razack, M. S., Maipang, T., Sako, K., Bakamjian, V., Shedd, D. P. Department of Head and Neck Surgery and Oncology, Roswell Park Memorial Institute, Buffalo, New York 14263. *American Journal of Surgery* 1989 Oct, Vol. 158 (4), pp. 318–20.
One hundred twenty-eight patients with T3 or T4 glottic cancers were treated by initial surgery; 59 had a total laryngectomy and 69 had total laryngectomy with regional node dissection. Fifty-eight per cent of the total laryngectomy group and 49 per cent of the total laryngectomy with neck dissection group remained free of disease for five or more years. Forty-seven per cent (60 of 128 patients) treated surgically developed regional recurrences requiring further treatment. Nine patients had evidence of widespread metastases, leaving 51 suitable for salvage radiotherapy. Twenty-three per cent (12 of 51 patients) were salvaged with radiotherapy given for postoperative recurrences. Twenty-five patients received an initial 6,600 rads to larynx and neck with curative intent, 28 per cent of whom remained free of disease for five or more years. Seventeen per cent of patients were salvaged with one laryngectomy for persistent or recurring tumors. Initial total laryngectomy gave better survival figures for advanced glottic carcinoma. Author.

Squamous carcinoma of the nasal cavity and paranasal sinuses. Spiro, J. D., Soo, K. C., Spiro, R. H. Department of Surgery, Memorial Sloan-Kettering Cancer Center, New York, New York. *American Journal of Surgery* 1989 Oct, Vol. 158 (4), pp. 328–32.
This study retrospectively analyzed 105 patients with squamous carcinoma of the nasal cavity and paranasal sinuses. The primary tumor was located in the maxillary sinus in 65 patients (62 per cent), the nasal cavity in 27 (26 per cent), the ethmoid sinus in 11 (10 per cent), and the sphenoid sinus in two (2 per cent). Over half of the patients with antral cancer were treated with surgery and radiotherapy, whereas one-third of the remaining patients received combination therapy. Most procedures were radical, including sacrifice of the orbital contents in half of the surgically treated patients. The five-year determinate cure rate was 45 per cent for patients with nasal cavity tumors, 38 per cent for those with maxillary sinus lesions, and 13 per cent for those with ethmoid tumors. Local recurrence remains a major problem despite aggressive surgery and increased use of adjunctive radiotherapy. Author.

Natural killer cells and metastases from pharyngeal carcinoma. Schantz, S. P., Savage, H. E., Racz, T., Taylor, D. L., Sacks, P. G. Department of Head and Neck Surgery, University of Texas, MD Anderson Cancer Center, Houston 77030. *American Journal of Surgery* 1989 Oct, Vol. 158 (4), pp. 361–6.
Natural killer cell activity was assessed in 100 previously untreated pharyngeal carcinoma patients. Diminished natural killer cell function in these patients was associated with an increased risk of death from uncontrolled regional and distant metastases. During the assessment, the cell line MDA686-Ln was established from a metastatic pharyngeal carcinoma of a patient with low natural killer cell cytotoxicity. The initially cytotoxicity-resistant cell line could be lysed when natural killer cell cytotoxicity was enhanced in vitro either through enrichment of a Leu 19+ natural killer cell population by fluorescent-activated cell sorting or by interleukin-2 activation. Additionally, increased circulating immune complexes

were identified in these patients, subsequently isolated, and found to block natural killer cell reactivity against MDA686-Ln. In light of this negative interaction, 38 patients were randomly evaluated for both circulating immune complex levels and natural killer cell function. Both parameters examined together were complementary in defining the risk of death with disease; four of five deaths occurred in patients with both high circulating immune complex levels and low natural killer cell function. Results support the biologic modification of natural killer cell activity for controlling metastatic pharyngeal carcinoma and point to the potential confounding influence of circulating immune complex. Author.

Bronchial cuff pressures of double-lumen tubes. Brodsky, J. B., Adkins, M. O., Gaba, D. M. Department of Anesthesia, Stanford University School of Medicine, California. *Anesthesia and Analgesia* 1989 Nov, Vol. 69 (5), pp. 608–10.
Pressure damage to respiratory mucosa from overinflation of bronchial cuffs has been implicated as a cause of bronchial rupture, a rare but devastating complication of double-lumen endobronchial tubes (DLTs). We compared the pressure/volume characteristics of the bronchial cuffs of three different polyvinylchloride (PVC) DLTs and an equivalent sized red-rubber Robertshaw DLT. At the volume needed to seal effectively our bronchial model, two of the three PVC tube cuffs tested generated significantly less pressure than did that of the cuffs of the third PVC and the red-rubber Robertshaw tubes. Author.

Tumoral nasopharyngeal lymphoid hyperplasia in human immunodeficiency virus-infected patients. Oksenhendler, E., Lida, H., D. Agay, M. F., Morinet, F., Pulik, M., Davi, F., Clauvel, J. P. Department of Hematology, St Louis Hospital, Paris, France. *Archives of Internal Medicine* 1989 Oct, Vol. 149 (10), pp. 2359–61.
Two patients presented with a large tumoral nasopharyngeal lesion with obstructive symptoms, which suggested a malignant tumor. They were black men of Caribbean origin who were infected with human immunodeficiency virus 1. In both cases, histologic examination revealed intense but benign lymphoid follicular hyperplasia, and immunohistochemical studies were consistent with its polyclonal nature. DNA studies performed on tumoral tissue failed to disclose immunoglobulin or T-cell receptor gene rearrangements. In one biopsy specimen, DNA hybridization using Epstein-Barr virus-specific probes showed no evidence of Epstein-Barr virus-DNA sequences. The nasopharynx can be involved in the diffuse extranodal lymphoid hyperplasia associated with human immunodeficiency virus infection. Author.

Developmental changes in high-frequency sensitivity. Trehub, S. E., Schneider, B. A., Morrongiello, B. A., Thorpe, L. A. Department of Psychology, University of Toronto, Mississauga, Ont., Canada. *Audiology* 1989, Vol. 28 (5), pp. 241–9.
Sensitivity to 1/3-octave-band noises with centre frequencies of 10, 20 and 25 kHz was measured for 200 children between 1.5 and 16 years of age and for 20 young adults. In the case of the 25-kHz signal, listeners of 1.5 and three years of age as well as those 16 and 20 years of age were unable to detect it at its highest intensity (57 dB). In contrast, listeners 5-14 years of age could detect the 25-kHz signal. Sensitivity to the 20-kHz signal improved until about eight years of age, deteriorating gradually thereafter. Finally, sensitivity to the 10-k Hz signal improved rapidly, reaching young adult levels by five years of age, and remaining stable until 20 years of age. These findings are consistent with the onset of high-frequency hearing losses at around 10 years of age. Whether such hearing losses are due to normal aging (presbyacusis) or to noise exposure (socioacusis) remains to be determined. Author.

Electronystagmographic findings and recovery of cochlear and vestibular function in patients suffering from sudden deafness with a special reference to the effect of anticoagulation. Laurikainen, E., Aantaa, E., Kallinen, J. Department of Otorhinolaryngology, University Hospital of Turku, Finland. *Audiology* 1989, Vol. 28 (5), pp. 262–7.
The study included 80 patients treated for sudden deafness over the last 5-7 years. Case history, laboratory findings, pure-tone audiogram and electronystagmography (ENG) findings were noted. If any abnormalities had been recorded in ENG studies, the studies were redone. ORL status was redefined and audiograms were obtained in all patients. When becoming ill, the 80 patients had not differed from the normal population in common cardiovascular risk factors. None of them had had signs of viral infection (paired serum samples had been taken at two-week intervals; routine examinations had been done for common viral antigens). As many as 31 of the 80 patients with acute hearing loss had had abnormalities such as spontaneous nystagmus (PN), hypoexcitability (HE) and directional preponderance (DP) in the bithermal caloric tests (+ 44 degrees C, + 30 degrees C) of their ENG studies. Twenty of the 31 patients still had abnormal ENG studies after 5-7 years. Only one subject had positional nystagmus, and none had subjective vertigo. Patients with an abnormal ENG study showed a poor recovery of the speech reception threshold, whereas those with a normal ENG study showed slightly significant (p less than 0.05) recovery. Author.

Treatment of tumours of the parotid gland and middle ear using obliquely reconstructed computed tomographic images. Sims, C., Manifold, I. H., Conway, J. Department of Medical Physics and Clinical Engineering, Weston Park Hospital, Sheffield. *British Journal of Radiology* 1989 Sep, Vol. 62 (741), pp. 785–9.
Conventional planning of radiotherapy of tumours of the parotid, middle ear and other tumours in the head and neck often requires the treatment plane to be non-transverse. This produces major problems in delineating the tumour as well as verifying that vital structures such as the spinal cord are not included in the target volume. The use of computed tomography (CT) generally overcomes some of these problems and we have developed an algorithm to reconstruct transverse CT images into the appropriate oblique plane. Software has been written on the Picker Independent Treatment Planning System (ITPS) to allow planning on central axis and off-axis oblique planes. In addition we have used a beam's eye view facility to aid in the verification process. Author.

Fiberoptic endoscopic examination and biopsy in determining the extent of nasopharyngeal carcinoma. Sham, J. S., Wei, W. I., Kwan, W. H., Chan, C. W., Choi, P. H., Choy, D. Department of Radiotherapy and Oncology, Queen Mary Hospital, Pokfulam, Hong Kong. *Cancer* 1989 Nov 1, Vol. 64 (9), pp. 1838–42.
This is a prospective study on the use of flexible endoscope and multiple biopsies in the assessment of nasopharyngeal carcinoma in 72 patients. This study confirmed the presence of submucosal growth pattern in nasopharyngeal carcinoma in 72 patients. This study confirmed the presence of submucosal growth pattern in nasopharyngeal carcinoma and this occurred in 13.8 per cent of patients. Occult microscopic extension of tumor not detectable by fiberoptic endoscopy occurred in another 51.4 per cent of patients. It has also been shown that multiple biopsy is superior to clinical examination in evaluating the extent of disease in nasopharyngeal carcinoma. Multiple biopsies are suggested for the early detection of nasopharyngeal carcinoma in high-risk cases. Although the better-defined tumor extent do not currently influence the treatment policy of nasopharyngeal carcinoma, and it is too early to assess its prognostic significance, it betters our understanding of the behaviour of this tumor. Future analysis in correlation with long-term follow-up data may help to improve the stage classification systems and treatment strategy. Author.

Laryngeal complications of prolonged intubation. Colice, G. L., Stukel, T. A., Dain, B. Department of Internal Medicine, Dartmouth Medical School, Hanover, N.H. *Chest* 1989 Oct, Vol. 96 (4), pp. 877–84.
In this study, 82 patients who experienced translaryngeal intubation (TLI) for more than four days were prospectively evaluated for laryngeal complications. At the time of extubation or tracheostomy, direct laryngoscopy was performed in these patients and laryngeal damage evaluated. A typical pattern of laryngeal damage was seen, consisting of mucosal ulcerations along the posteriormedial aspects of both vocal cords and varying degrees of laryngeal edema in 77 patients (94 per cent). Performance of a tracheostomy and presence of neuromotor activity were associated with the severity of laryngeal damage, but duration of TLI was not. Laryngoscopy was repeated at two-week intervals in 54 patients and laryngeal damage was resolved within four weeks in 63 per cent. These 54 patients were evaluated for adverse clinical effects arising from TLI-induced laryngeal pathology and no relationship was found between laryngeal pathology seen at initial laryngoscopy and the development of adverse effects. Author.

Analysis of a hearing conservation program data base: factors other than workplace noise. Franks, J. R., Davis, R. R., Kreig, E. F. Jr. Bioacoustics and Occupational Vibration Section, National Insti-

tute for Occupational Safety and Health, Cincinnati, Ohio 45226. *Ear and Hearing* 1989 Oct, Vol. 10 (5), pp. 273–80.
The hearing conservation records of a large, multiple-facility printing company were obtained. The records were analyzed for factors associated with Standard Threshold Shift. These factors included hearing levels, employee age and sex, occupational and nonoccupational noise exposure histories, and medical history. The analysis revealed that statistically significant factors associated with Standard Threshold Shift were from medical and nonoccupational noise exposure histories, and not occupational noise exposure. Author.

The superiority of the Goodwin procedure over the traditional procedure in measuring the loudness level of tinnitus. Risey, J., Briner, W., Guth, P. S., Norris, C. H. Department of Otolaryngology-Head and Neck Surgery, Tulane University School of Medicine, New Orleans, Louisiana. *Ear and Hearing* 1989 Oct, Vol. 10 (5), pp. 318–22.
The results of two procedures for measuring the loudness level of tinnitus will be presented. The traditional procedure yielded significantly smaller loudness matches, when expressed in decibel sensation level (ie, dB SL), than did the Goodwin procedure. The Goodwin procedure is more sensitive to pharmacologically induced changes in tinnitus loudness than is the traditional procedure. The Goodwin method correlates well with changes in patient's subjective rating of tinnitus severity. The Goodwin match has a larger reliability coefficient. Nonlinear correlation also indicates that the Goodwin procedure is superior to the traditional method. Author.

Neuromagnetic steady-state responses to auditory stimuli. Hari, R., Hamalainen, M., Joutsiniemi, S. L. Low Temperature Laboratory, Helsinki University of Technology, Espoo, Finland. *Journal of the Acoustical Society of America* 1989 Sep, Vol. 86 (3), pp. 1033–9.
Steady-state magnetic responses to clicks presented at rates between 10 and 70 Hz have been recorded in healthy humans. The responses were highest in amplitude around 40 Hz. This amplitude enhancement is satisfactorily explained by summation of responses evoked by single clicks. The field maps suggest activation of the auditory cortex at all stimulus frequencies. Similar responses were obtained with gated noise bursts and by pauses in a series of clicks. The mean 'apparent latency', determined from the phase lag at rates 30-70 Hz, was 54 ms. The physiological relevance of this quantity is shown to be questionable. Author.

Sensitization alters contractile responses and calcium influx in human airway smooth muscle. Black, J. L., Marthan, R., Armour, C. L., Johnson, P. R. Department of Pharmacology, University of Sydney, N.S.W., Australia. *Journal of Allergy and Clinical Immunology* 1989 Oct, Vol. 84 (4 Pt 1), pp. 440–7.
Although an abnormality in airway smooth muscle has been promoted as a mechanism for airway hyperresponsiveness, there is, so far, little evidence to support this. We investigated whether in vitro hyerresponsiveness to pharmacologic agents could be induced in human airway tissue by passive sensitization and whether these changes in contractile responses were related to an alteration in calcium mobilization. Human bronchial tissue was incubated in serum with a high RAST titer to Dermatophagoides farinae. Control tissues were incubated in serum taken from a skin test-negative donor with a total IgE of less than 10 IU/ml. We compared contractile responses to histamine, KCl, and carbachol in nonsensitized and sensitized tissues and examined the effect on these responses of the calcium voltage-dependent channel agonist, BAY K8644 (10(-6) mol/L). We found that sensitization significantly increased responses to histamine, depressed responses to carbachol, and increased the involvement of the calcium voltage-dependent channel in contractions to KCl. These results suggest that airway hyperresponsiveness may be associated with altered calcium mobilization in airway smooth muscle. Author.

Double-blind, placebo-controlled immunotherapy with mixed grass-pollen allergoids. III. Efficacy and safety of unfractionated and high-molecular-weight preparations in rhinoconjunctivitis and asthma. Bousquet, J., Maasch, H. J., Hejjaoui, A., Skassa-Brociek, W., Wahl, R., Dhivert, H., Michel, F. B. Clinique des Maladies Respiratoires, Hopital L'Aiguelongue, Centre Hospitalier Universitaire, Montpellier, France. *Journal of Allergy and Clinical Immunology* 1989 Oct, Vol. 84 (4 Pt 1), pp. 546–56.
Specific immunotherapy with unmodified formalinized allergoids is effective in grass-pollen allergy, but systemic reactions have been observed. A high-molecular-weight formalinized allergoid (HMW-GOID) was fractionated by gel filtration, retaining molecules of greater than 85,000 daltons in the expectation of improving safety without sacrificing efficacy. HMW-GOID and unfractionated allergoid (GOID) had a similar allergenic activity assessed by RAST inhibition, but the HMW-GOID preparation was 65 times less reactive when it was tested by skin prick test than the GOID preparation. A double-blind, placebo-controlled study was carried out in grass pollen-allergic patients with placebo (14 patients), GOID (15 patients), and HMW-GOID (13 patients). An additional group of 18 patients was treated by a rush schedule with a standardized orchard grass-pollen extract. A similar mean cumulative dose was administered with both allergoids. The fractionated allergoid only elicited minor systemic reactions similar to reactions elicited by placebo, whereas 20 per cent of patients treated by GOID and 5.5 per cent of patients receiving the standardized extract had a severe systemic reaction. For rhinitis, conjunctivitis, and asthma, the HMW-GOID and the standardized extract had a similar efficacy, significantly greater than placebo. GOID was less effective than the other two active treatments but was significantly more effective than placebo treatment for asthma and conjunctivitis. Author.

Cetirizine: a pharmacokinetic and pharmacodynamic evaluation in children with seasonal allergic rhinitis. Watson, W. T., Simons, K. J., Chen, X. Y., Simons, F. E. Health Sciences Clinical Research Center, Faculty of Medicine, Winnipeg, Manitoba, Canada. *Journal of Allergy and Clinical Immunology* 1989 Oct, Vol. 84 (4 Pt 1), pp. 457–64.
In a double-blind, randomized, parallel-group five-week study, cetirizine, 5 mg or 10 mg daily, was ingested by 10 and nine children, respectively. Cetirizine was rapidly absorbed with mean peak cetirizine concentrations of 427.6 +/− SD, 144.2 ng/ml, 1.4 +/− 1.1 hours after the 5 mg dose, and 978.4 +/− 340.6 ng/ml, 0.8 +/− 0.4 hours after the 10 mg dose. The dose-independent serum-elimination half-life of cetirizine was 7.1 +/− 1.6 hours after cetirizine, 5 mg, and 6.9 +/− 1.6 hours after cetirizine, 10 mg. Urinary excretion of unchanged cetirizine during 24 hours after the initial dose of cetirizine, 5 mg, was 40 +/− 15 per cent, and after cetirizine, 10 mg, it was 39 +/− 14 per cent. The mean histamine-induced wheal-and-flare areas were significantly suppressed from one to 24 hours after the first dose of cetirizine, 5 mg, and from 1/2 to 24 hours after the first dose of cetirizine, 10 mg, compared to the mean predose wheal-and-flare areas (p less than 0.01). During daily dosing with cetirizine, 5 mg or 10 mg at bedtime for 35 days, serum cetirizine concentrations and suppression of histamine-induced wheals and flares were monitored every seven days, 12 hours after the cetirizine dose. The mean serum cetirizine concentrations remained relatively stable during this time, and the mean wheal-and-flare areas remained significantly suppressed (p less than 0.01) compared to baseline wheal-and-flare areas measured before the first dose of cetirizine. The symptoms and signs of allergic rhinitis were suppressed throughout the study by cetirizine, 5 mg and 10 mg. Author.

Key anatomic structures of the face and neck for the dermatologic surgeon: their relationship in a cadaver dissection. Phillips, J. H., Walker, L. B., Millikan, L. E. Tulane University School of Medicine, New Orleans, Louisiana. *Journal of Dermatologic Surgery and Oncology* 1989 Oct, Vol. 15 (10), pp. 1101–6.
A working knowledge of vital anatomic structures of the face and neck are imperative for the dermatologic surgeon. This article correlates those commonly encountered structures with a cadaver dissection as they relate to skin cancer excision, rhytidectomies, and liposuction. Author.

Surgical removal of giant acoustic neurinomas involving the skull base. Report of two cases. Sawamura, Y., Nakagawa, Y., Ikota, T., Abe, H. Department of Neurosurgery, Hokkaido University School of Medicine, Sapporo, Japan. *Journal of Neurosurgery* 1989 Oct, Vol. 71 (4), pp. 611–5.
Neurinomas arising from the peripheral branch of the acoustic nerve distal to the internal auditory canal in the temporal bone are rare. Two advanced skull-base neurinomas are described which were situated mainly in the temporal petrous bone, and extended to the parapharyngeal space anteriorly, to the lateral cervical portion inferiorly, into the sphenoidal sinus medially, and into the middle and posterior cranial fossae compressing the brain stem. Both patients had been deaf for several years without other neuro-

logical deficits. The operative findings revealed that the fifth, seventh, and caudal cranial nerves were intact; therefore, it was suspected that these neurinomas originated primarily within the cochlea or the vestibule in the temporal bone. The tumors were completely removed via an extradural approach, with good results. Since the surgical treatment of such advanced skull-base neurinomas is difficult, the operative infratemporal fossa approach is described in detail. Author.

Small plate osteosynthesis for mandibular reconstruction following osteotomy for tumor resection. Postlethwaite, K. R., Wood, G. A. Department of Oral and Maxillofacial Surgery, Glan Clwyd Hospital, Bodelwyddan Clwyd, North Wales, Great Britain. *Journal of Oral and Maxillofacial Surgery* 1989 Oct, Vol. 47 (10), pp. 1102–5.
Cases have been presented that demonstrate the advantages of small plate ostesynthesis in the reconstruction of the mandible following resection of neoplastic disease. Mandibulotomies provide improved access to tumors and thus allow the tumor to be better excised. Prelocalization of the plates allows the precise reconstruction of the mandible following mandibulotomy with minimal morbidity and disturbance of function. Author.

Ameloblastoma with metastasis to the lung and associated hypercalcemia. Harada, K., Suda, S., Kayano, T., Nagura, H., Enomoto, S. Second Department of Oral and Maxillofacial Surgery, Faculty of Dentistry, Tokyo Medical and Dental University, Japan. *Journal of Oral and Maxillofacial Surgery* 1989 Oct, Vol. 47 (10), pp. 1083–7.
A case of ameloblastoma with metastasis to the lung is reported. A rare feature of this case was that the metastasized ameloblastoma was associated with hypercalcemia without osteolytic bone metastasis. Author.

Preoperative and postoperative audiologic measurements in patients undergoing arthroscopy of the TMJ. McCain, J. P., Goldberg, H. M., de la Rua, H. University of Miami School of Medicine, Department of Oral and Maxillofacial Surgery, Florida. *Journal of Oral and Maxillofacial Surgery* 1989 Oct, Vol. 47 (10), pp. 1026–7.
This article examines the hearing patterns of patients who have undergone arthroscopic surgery using pre- and post-operative pure tone audiometry. Of 29 patients (44 operated joints), one side of one patient showed a decrease of 15 dB immediately postoperatively. On examination there was no apparent anatomic disturbance of the middle or inner ear. The patient regained normal levels of hearing within two months. It is concluded that arthroscopic surgery of the TMJ is safe with respect to the middle and inner ear and that it does not affect hearing levels. Author.

The effect of temporomandibular joint arthroscopy on ear function. Jones, J. L., Horn, K. L. *Journal of Oral and Maxillofacial Surgery* 1989 Oct, Vol. 47 (10), pp. 1022–5.
Many patients with temporomandibular joint (TMJ) dysfunction also complain of subjective symptoms of ear dysfunction. This study was undertaken to evaluate preoperatively patients with ear complaints associated with TMJ pain and dysfunction and to examine the effect of essentially uncomplicated TMJ arthroscopy on subsequent ear function. Fourteen patients (22 joints) were examined arthroscopically. The patients were evaluated by an otologist, and hearing tests were obtained pre- and post-operatively. All patients had normal audiometric studies preoperatively, and these remained unchanged postoperatively. It was concluded that uncomplicated arthroscopy of the TMJ does not cause ear dysfunction. Author.

Benign fibrous histiocytoma of the maxilla. Cale, A. E., Freedman, P. D., Kerpel, S. M., Lumerman, H. Booth Memorial Medical Center, Department of Dentistry, Flushing, N.Y. *Oral Surgery, Oral Medicine, Oral Pathology* 1989 Oct, Vol. 68 (4), pp. 444–50.
Benign fibrous histiocytomas of bone are unusual neoplasms that often are confused with metaphyseal fibrous defects. Although the two lesions have overlapping microscopic characteristics, they differ in their clinicopathologic presentations. This report describes the clinicopathologic features of the first reported case of benign fibrous histiocytoma involving the maxilla and the fourth description of this tumor in the jawbones. In addition, the concept of fibrohistiocytic lesions of bone is discussed with consideration of their pathologic classification and their clinical, radiographic and microscopic differential diagnosis. Author.

Malignant fibrous histiocytoma of the mandible. Anavi, Y., Herman, G. E., Graybill, S., MacIntosh, R. B. Detroit Receiving Hospital, Mich. *Oral Surgery, Oral Medicine, Oral Pathology* 1989 Oct, Vol. 68 (4), pp. 436–43.
Malignant fibrous histiocytoma of the mandible has appeared frequently enough in the world literature in recent years to assume a legitimate place in the differential diagnosis of neoplastic masses of the lower jaw. This article reports a pertinent case and tabulates and correlates the findings of all cases reported thus far. The report also explores the contribution of immunohistochemistry to proper diagnosis and emphasizes the advantages of a cojoint effort between surgeon and pathologist at the time of initial patient evaluation. The case reported also demonstrates the poor prognostic characteristics of this lesion and the uncertainty as to proper mode of treatment. Author.

Single vs. double acoustic reflectometry tracings. Combs, J. T. *Pediatric Infectious Diseases Journal* 1989 Sep, Vol. 8 (9), pp. 616–20.
Impedance tympanometry and acoustic reflectivity tests were obtained on 503 infants and children ranging from three months to 12 years of age during a six-week period in a solo primary care practice. One hundred eighty-five of 1005 tracings from the acoustic otoscope with recorder demonstrated two reflectivities. This phenomenon occurred more commonly in infants than in older children and was not seen with reflectivities higher than seven units. One hundred thirty-eight of the 185 double reflectivity tracings were associated with abnormal impedance tympanometry. The double reflectivity phenomenon may be important in helping to explain the false negative results occasionally seen with this technology in low and intermediate reflectometry scores. Future clinical research involving acoustic reflectometry should utilize the recording device and single and double reflectivity tracings should be handled separately in any analysis of data. Use of the recorder will also prevent false positive errors in the interpretation of some intermediate reflectivities. Author.

Neonatal vocal cord paralysis following extracorporeal membrane oxygenation. Schumacher, R. E., Weinfeld, I. J., Bartlett, R. H. Department of Pediatrics, University of Michigan Medical Center, Ann Arbor. *Pediatrics* 1989 Nov, Vol. 84 (5), pp. 793–6.
Five cases of unilateral vocal cord paralysis/paresis were diagnosed following extracorporeal membrane oxygenation for newborn respiratory failure. All were right sided and transient in nature. None of the five patients had other findings commonly associated with vocal cord palsy. The extracorporeal membrane oxygenation procedure requires surgical dissection in the carotid sheath on the right side of the neck, an area immediately adjacent to both the vagus and recurrent laryngeal nerve. It is speculated that vocal cord paralysis in these infants was acquired as a result of the extracorporeal membrane oxygenation cannulation. Although the vocal cord paralysis resolved in all cases, two patients had difficult courses after extracorporeal membrane oxygenation. Therefore, laryngoscopic examination should be considered for patients after extracorporeal membrane oxygenation. Author.

Abnormal patterns of pulmonary neuroendocrine cells in victims of sudden infant death syndrome. Gillan, J. E., Curran, C., O'Reilly, E., Cahalane, S. F., Unwin, A. R. Department of Pathology, Trinity College, Rotunda Hospital, Dublin, Ireland. *Pediatrics* 1989 Nov, Vol. 84 (5), pp. 828–34.
Ventilatory dysfunction has become the main focus of current research in sudden infant death syndrome (SIDS). This has been correlated with structural abnormalities in the carotid body and respiratory nuclei of the brainstem. In recent studies, the denervating effect of asphyxial brainstem dysfunction on the pulmonary neuroendocrine cells, which probably function as chemoreceptors, was demonstrated and prompted the following study. The pulmonary neuroendocrine system was evaluated in 25 victims of SIDS and 20 control infants, ranging in age from three weeks to seven months and one to 12 months, respectively. The pulmonary neuroendocrine cells were stained by the Churukian-Schenk method and the neuroendocrine cell-positive airway values expressed as a percentage of the total number of airways. The range of positive airway values for victims of SIDS was 2 per cent to 97 per cent with a median of 73 per cent. In contrast, the range for the control infants was 1 per cent to 44 per cent with a median of 25.5 per cent. The SIDS victims' percentage was significantly greater than the control infants' percentage (P less than .0001). The number of pulmonary neuroendocrine cells in positive airway was also increased among

SIDS victims compared with control infants. The altered pulmonary neuroendocrine cell pattern could be attributable to either brainstem dysfunction or chronic hypoxia. These explanations are not, however, mutually exclusive of one another; in fact, it is possible that both mechanisms may be operative. Author.

Necrotizing otitis externa during induction therapy for acute lymphoblastic leukemia. Wolff, L. J. Department of Pediatrics, Doernbecher Memorial Hospital for Children, Oregon Health Sciences University, Portland 97201. *Pediatrics* 1989 Nov, Vol. 84 (5), pp. 882–5.
In three children who were receiving acute lymphoblastic leukemia induction therapy and were severely neutropenic, necrotizing otitis externa developed. Two patients had a probing maneuver to their ear canal. Pseudomonas aeruginosa was isolated in heavy growth from the external canal of three patients and other tissues of one patient. Staphylococcus aureus was cultured from the ear canal and tissues of one patient and Streptococcus faecalis from the ear canal of another patient. Necrotizing otitis externa resolved in two patients after two weeks of intravenous antibiotics, debridement, and resolution of neutropenia. One patient required prolonged intravenous antibiotics and several surgical procedures. The occurrence of necrotizing otitis externa in children with acute lymphoblastic leukemia and severe neutropenia, the association of Gram-positive cocci with necrotizing otitis externa, and the importance of protecting anatomic barriers like the external ear canal in immunocompromised patients are emphasized. Author.

Lack of cilia and squamous metaplasia in upper respiratory tract biopsies from children. Phillips, J. I. Department of Anatomical Pathology, School of Pathology, South African Institute for Medical Research, Johannesburg. *South African Medical Journal* 1989 Oct 7, Vol. 76 (7), pp. 355–7.
Biopsies were obtained from 47 children with upper respiratory tract infection aged 30 days-12 years. All had been extensively investigated and no underlying cause for their symptoms could be found. A total of 63 specimens (46 from the inferior nasal turbinate, eight from the trachea and nine from the carina or bronchus) were examined. Only four showed no degree of squamous metaplasia and eight showed significant numbers of acquired-type morphological abnormalities of the cilia. Twenty-six of the 63 biopsies had significantly reduced numbers of cilia and 34 had no cilia. Inherited-type changes were seen in only one patient. The net result of a lack of cilia and the immotile-cilia syndrome is the same—absence of mucociliary transport. Author.

Adenoid cystic carcinoma metastasizing before detection of the primary lesion. Warren, C. J., Gnepp, D. R., Rosenblum, B. N. Department of Pathology, St Louis University School of Medicine, Mo. *Southern Medical Journal* 1989 Oct, Vol. 82 (10), pp. 1277–9.
Although adenoid cystic carcinomas are occasionally manifested in atypical ways, metastatic disease preceding detection of the primary tumor has not been previously reported. We have described a patient in whom multiple pulmonary metastatic nodules were found one year before identification of primary adenoid cystic carcinoma of the maxilla. This case illustrates the need to include adenoid cystic carcinoma in the differential diagnosis of patients with metastatic disease and an unknown primary lesion. The use of special stains and electron microscopy can be helpful in confirming a diagnosis of adenoid cystic carcinoma. Author.