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Abstract Selection

CT diagnostic features of Alzheimer disease: importance of the choroidal/hippocampal fissure complex. George, A. E., de Leon, M. J., Stylopoulos, L. A., Miller, J., Kluger, A., Smith, G., Miller, D. C. Department of Radiology (Neuroradiology), New York University School of Medicine, NY 10016. *American Journal of Neuroradiology* (1990) Jan-Feb, Vol. 11 (1), pp. 101–7.
Neuropathologic changes in the temporal lobe, including focal atrophy of the subiculum and entorhinal cortex, have been described in association with Alzheimer disease. We studied the usefulness of detecting temporal-lobe structural changes on CT in making the diagnosis of Alzheimer disease. The dementia imaging protocol we use includes thin-section (5 mm) cuts of the temporal lobe oriented 20 degrees negative (caudal) to the plane of the canthomeatal line. Thirty-four patients with suspected Alzheimer disease and 20 normal elderly control subjects, all between 65 and 80 years old, were studied with a standard protocol that also included neurologic and medical examinations and detailed psychometric testing. All the temporal-lobe evaluations of the five variables measured were significantly associated with the presence or absence of Alzheimer disease. Almost all Alzheimer patients showed evidence of mild or greater severity of overall temporal-lobe atrophy. The absence of temporal-lobe atrophy, seen in approximately one half the normal cases, identified normal individuals with a high degree of specificity (95%). The presence of characteristic hippocampal lucency, apparently due to enlargement of the choroid and hippocampal fissures, showed the highest sensitivity and classification accuracy of all the variables tested (82 and 80% respectively; p less than 0.001), correctly identifying 82% of Alzheimer patients and 80% of Alzheimer patients and control subjects. These results indicate that CT detection of structural changes in the temporal lobe and hippocampus strongly support the diagnosis of Alzheimer disease. A temporal-lobe imaging protocol for CT, and by extension for MR, is suggested for the evaluation of patients with the clinical diagnosis of a dementing disorder. Author.

The relationship between frontal sinus drainage and osteomeatal complex disease: a CT study in 217 patients. Wallace, R., Salazar, J. E., Cowles, S. Department of Radiology, University of Tennessee, Memphis. *American Journal of Neuro-radiology* (1990) Jan-Feb, Vol. 11 (1), pp. 183–6.
Over a period of 2 years we reviewed the CT scans of 217 patients with recurrent sinusitis. Our findings revealed a number of cases of osteomeatal complex disease with no frontal sinus involvement. This result is difficult to reconcile with the concept of a common drainage in the middle meatus shared by the frontal and anterior ethmoid sinuses. We conclude that the frontal sinus drains separately from the other paranasal sinuses in a large percentage of cases, and that the frontal sinus is frequently spared when there is ethmoid or maxillary sinusitis. Author.

Tumors of the nasopharynx and adjacent areas: MR imaging with Gd-DTPA. Vogl, T., Dresel, S., Bilaniuk, L. T., Grevers, G., Kang, K., Lissner, J. Department of Radiology, University of Munich, West Germany. *American Journal of Neuro-radiology* (1990) Jan-Feb, Vol. 11 (1), pp. 187–94.
The purpose of this study was to describe our experience with Gd-DTPA-enhanced MR imaging in the evaluation of the most common nasopharyngeal tumors. Forty-two patients with tumors of the nasopharynx and adjacent spaces had MR imaging before and after IV injection of Gd-DTPA. Images were obtained with a 1.0-T superconducting magnet imaging system in transverse, coronal, and sagittal planes with T1- and T2-weighted sequences. MR images were compared with CT scans and tumor histology. The studies were categorized by using a grading system with grades ranging from unsatisfactory (grade 0) to optimal (grade 3). Contrast-enhanced MR enables better identification of small anatomic details such as both palatini muscles and the pharyngobasilar fascia. MR after Gd-DTPA was superior to CT in all cases except for tumors of the maxillary sinuses. MR with Gd-DTPA is recommended for tumors that are small and difficult to detect on the initial nonenhanced MR examination or that show subtle infiltrations. Because of the increased cost and longer examination time, MR with Gd-DTPA does not need to be done when large tumors are well delineated. Author.

The relationship between nasal airway size and nasal-oral breathing in cleft lip and palate. Warren, D. W., Hairfield, W. M., Dalston, E. T. Dental Research Center, University of North Carolina, Chapel Hill 27599. *Cleft Palate Journal* (1990) Jan, Vol. 27 (1), pp. 46–51; discussion 51–2.
Clefts of the lip and palate generally result in reduced size of the nasal airway. Procedures such as the placement of a pharyngeal flap tend to further compromise nasal breathing. The purpose of this study was to determine how size of the nasal airway affects the mode of breathing in adults with cleft lip and/or palate. A heterogeneous population of 50 adult subjects with cleft lip and/or palate was studied. Nineteen of the subjects had pharyngeal flaps. Respiratory inductive plethysmography was used in combination with an integrating pneumotachograph to measure per cent nasal breathing. Pressure-flow studies were used to estimate nasal airway size. The data revealed that a majority of subjects had an airway size of less than 0.4 cm^2, which constitutes impairment. Mean cross-sectional area for all subjects was 0.38 $cm^2 \pm 0.20$ SD. Seventy per cent of the subjects studied were oral breathers to some extent. A Spearman rank correlation coefficient of 0.725 (p less than 0.0001) indicated that oral-nasal breathing mode was related to airway size. Airway size in the subgroup with pharyngeal flaps was even smaller (0.31 cm^2), while per cent nasal breathing was lower. Mouth-breathing was observed in all subjects whose airway size was less than 0.38 cm^2. Author.

Maintaining speech pressures in the presence of velopharyngeal impairment. Warren, D. W., Dalston, R. M., Dalston, E. T. Department of Dental Ecology, University of North Carolina, Chapel Hill 27599. *Cleft Palate Journal* (1990) Jan, Vol. 27 (1), pp. 53–8; discussion 58–60.
Most, but not all, individuals with velopharyngeal inadequacy maintain consonant pressures greater than 3 cm H_2O even with decreased velar resistance. The purpose of this study was to identify variables that might differentiate those who achieve adequate pressues from those who do not. Forty-four cleft-lip and/or palate subjects were assessed during production of /p/ in the word 'hamper.' Twenty-three subjects achieved pressures greater than 3 cm H_2O and 21 did not. The pressure-flow technique was used to assess velopharyngeal orifice size, nasal resistance, velar resistance, and nasal airflow during speech. Nasal cross-sectional area was measured during breathing. The data were analysed by age and gender. Results indicate that the inability to ahieve adequate consonant pressures in the presence of velopharyngeal inadequacy is more likely to occur in adults than in children. Although children are known to produce consonants at higher pressures than adults, the age disparity between groups did not account for the pressure differences. The most significant factor differentiating adequate and low pressure speakers was the magnitude of nasal plus velar resistance. This difference was consistent across age and gender. Author.

Hearing loss and cleft palate: the perspective of time. Gould, H. J. Memphis State University, Tennessee. *Cleft Palate Journal* (1990) Jan, Vol. 27 (1), pp. 36–9.
This study examines the hearing status of individuals with clefts of the palate or lip and palate without other major malformations or syndromes. A total of 1,699 audiometric records were reviewed and classified on the basis of race, gender, cleft type, age, and birth year (pre or post 1969). The results indicate that race, age, and date of birth affect the frequency of hearing loss. Author.

Skin mastocytosis with short stature, conductive hearing loss and

microtia: a new syndrome. Wolach, B., Raas-Rothschild, A., Metzker, A., Choc, L., Straussberg, R., Lew, S., Goodman, R. M. Pediatric Department, Meir General Hospital, Sapir Medical Center, Kfar Saba, Israel. *Clinical Genetics* (1990) Jan, Vol. 37 (1), pp. 64–8.
A 5½-year-old Sephardic Jewish girl, born of consanguineous parents, is described. She has short stature, microcephaly, conductive hearing loss, skin mastocytosis and microtia. Since this constellation of findings has not been reported previously, we think that these findings represent a new congenital malformation, most probably of genetic etiology. Author.

Interstitial iridium^{192} for cutaneous carcinoma of the external nose. Crook, J. M., Mazeron, J. J., Marinello, G., Raynal, M., Huart, J., Leung, S., Le Bourgeois, J. P., Pierquin, B. Department de cancerologie, hopital Henri Mondor, Creteil, France. *International Journal of Radiation Oncology, Biology and Physics* (1990) Jan, Vol. 18 (1), pp. 243–8.
Several implantation techniques useful for nasal skin carcinoma have been developed at the Henri Mondor Hospital in Creteil, France, and are described in detail. Iridium^{192} wires, 0.3 mm in diameter, are afterloaded into either supple plastic tubes or rigid needles implanted according to the rules of the Paris system. Dosimetry is performed by computer, based on either direct measurements of active lengths and spacing, orthogonal films or a tomogram oriented in the central plane of the implant. According to a recent review by the European Curietherapy Group of 468 implants, the optimal dose is 60 Gy. The overall failure rate was 2.6%. Indications for implantation and choice of technique, based on tumor size, site, and gross morphology are discussed. Author.

Management of local residual primary lesion of nasopharyngeal carcinoma: II. Results of prospective randomized trial on booster dose. Yan, J. H., Xu, G. Z., Hu, Y. H., Li, S. Y., Lie, Y. Z., Qin, D. X., Wu, X. L., Gu, X. Z. Dept. Radiation Oncology, Cancer Hospital, Chinese Academy of Medical Sciences, Beijing. *International Journal of Radiation Oncology, Biology and Physics* (1990) Feb, Vol. 18 (2), pp. 295–8.
Although the question of booster dose for residual primary lesion arises in only 5% of nasopharyngeal carcinoma patients receiving radiotherapy, it poses a difficult problem for clinicians and should be followed. Hence, to test the validity of booster dose for residual primary lesion of nasopharyngeal carcinoma, a prospective randomized trial has been designed and carried out since January 1980. All patients who had a residual lesion in the nasopharynx at 70 Gy were biopsied. Those pathologically positive for cancer were randomized into two groups: (a) positive radiation group (PRG): patients were given further irradiation to a total dose of 90 Gy by the cone-down and assault technique, and (b) positive observation group (POG): patients were given no more irradiation but were followed periodically together with those who were pathology negative (NOG). A total of 78 patients were entered. The validity of booster dose was shown by the 5-year survival rates of the PRG, POG and NOG groups: 75% (¾), 33% (⅓) and 58% (¹⁴⁄₂₄), respectively. The total local recurrence rates of these groups were 6% (¹⁄₁₆), 36% (⁵⁄₁₄), and 4% (²⁄₄₈), respectively. The authors believe that booster dose for pathology positive residual lesion in the nasopharynx is necessary. The four factors leading to the development of a local recurrence are: (a) residual primary lesion proved positive by pathology but left unboosted, (b) well differentiated squamous cell carcinoma in the original primary lesion, (c) mild radio-response in the cancer parenchyma, and (d) mild radio-response in the interstitial tissue. Author.

Infant speech-sound discrimination in noise. Nozza, R. J., Rossman, R. N., Bond, L. C., Miller, S. L. Department of Otolaryngology, University of Pittsburgh School of Medicine, Pennsylvania. *Journal of the Acoustical Society of America* (1990) Jan, Vol. 87 (1), pp. 339–50.
The effects of noise on 7- to 11-month-old infants' speech-sound discrimination (/ba/vs/ga/) were determined using a conditioned head-turn procedure. Variation in performance as a function of signal-to-noise ratio (S/N) was estimated by testing each infant at four S/N's (−8, 0, 8, and 16 dB). Adults were tested for comparison at four S/N's (−12, −8, −4, and 0 dB). The S/N's were chosen based on pilot data. Performance varied monotonically with S/N for both age groups, but infants required greater S/N than adults to achieve comparable levels of performance. Both groups were also tested using an adaptive (1-up, 1-down) threshold procedure with a 3-dB step size. There was a group mean difference in threshold of 5.8-dB S/N favoring the adults. Weighted group psychometric functions, derived from the responses obtained in the adaptive runs, showed good correspondence with the data points at the four S/N's. The slopes of these functions were the same (7.5%/dB) for infants and adults. The results suggest that infants are at a greater disadvantage than adults when processing speech in noise and that concern over the effects of a noisy environment on the acquisition of language is justified. In addition, the adaptive threshold procedure can be used as an efficient way to estimate the limits of discrimination ability as a function of S/N or intensity, both for individual subjects and for groups of subjects, in developmental research. Author.

Long-term effects of aspirin desensitization—treatment for aspirin-sensitive rhinosinusitis-asthma. Sweet, J. M., Stevenson, D. D., Simon, R. A., Mathison, D. A. Department of Basic and Clinical Research, Scripps Clinic and Research Foundation, La Jolla, Calif 92037. *Journal of Allergy and Clinical Immunology* (1990) Jan, Vol. 85 (1 Pt 1), pp. 59–65.
One hundred and seven known aspirin (ASA)-sensitive patients with rhinosinusitis-asthma were studied from 1975 to 1988. Forty-two of the patients avoided ASA and served as the control group. Thirty-five patients were desensitized to ASA and treated with daily ASA treatment (Rx) for as long as 8 years (mean, 3.75 years) to May 1988 and were designated the continuous group. Thirty patients, initially desensitized to ASA and treated with daily ASA, who stopped Rx permanently after a mean duration of 2 years, were designated the discontinued group. Retrospective analyses of baselines revealed that both continuous and discontinued groups during ASA Rx demonstrated statistically significant reduction in number of hospitalizations per year, emergency room visits per year, outpatient visits per year, upper respiratory infections-sinusitis-antibiotics per year, need for nasal polypectomies and additional sinus operations, and improvement in sense of smell compared to the control group. Simultaneously, the ASA Rx groups were able to significantly reduce systemic corticosteroid dosage, corticosteroid bursts per year, and, in the continuous group only, significantly reduce inhaled corticosteroids. All three groups maintained control of respiratory symptoms. ASA desensitization followed by long-term daily ASA Rx appears to improve ASA-sensitive rhinosinusitis-asthma and concomitantly allows reduction of systemic corticosteroids. Author.

Allergen-induced changes in the nasal mucous membrane in seasonal allergic rhinitis: effect of nedocromil sodium. Lozewicz, S., Gomez, E., Clague, J., Gatland, D., Davies, R. J. Department of Respiratory Medicine, St. Bartholomew's Hospital, London, England. *Journal of Allergy and Clinical Immunology* (1990) Jan, Vol. 85 (1 Pt 1), pp. 125–31.
We have obtained biopsy specimens of the nasal mucous membrane before and during the grass-pollen season in 22 patients with seasonal allergic rhinitis to grass pollen to assess the effects on cellular infiltration of natural exposure to allergen. Biopsy sections were examined by light microscopy, and quantitative assessment was made of numbers of mast cells and eosinophils. The patients were divided into 11 who were treated with placebo and 11 patients who were treated with topical nedocromil sodium. In the group as a whole, there was a significant (p less than 0.001) increase in mast cell density in tissue sections from biopsy specimens obtained during the season compared with out of season (median values, 55.0 and 15.5 cells per square millimetre, respectively). There was also a significant (p less than 0.02) increase in the density of eosinophil infiltration during the season compared with out of season (median values, 6.3 and 0 cells per square millimetre, respectively). Treatment with nedocromil sodium significantly (p less than 0.02) inhibited the accumulation of mast cells but not eosinophils. Compared with the placebo-treated group, the group treated with nedocromil demonstrated a significant (p less than 0.025) reduction in the requirements for treatment with concomitant medication (terfenadine tablets and xylometazoline/antazoline eye drops). These results indicate that natural exposure to allergen in patients with seasonal allergic rhinitis is accompanied by infiltration of mast cells and eosinophils into the nasal mucous membrane. The clinical efficacy of nedocromil sodium in this condition may be related to inhibition of infiltration by mast cells. Author.

Suppression by ingested eicosapentaenoic acid of the increases in nasal mucosal blood flow and eosinophilia of ryegrass-allergic reac-

tions. Rangi, S. P., Serwonska, M. H., Lenahan, G. A., Pickett, W. C., Blake, V. A., Sample, S., Goetzl, E. J. Howard Hughes Medical Institute, San Francisco, Calif. *Journal of Allergy and Clinical Immunology* (1990) Feb, Vol. 85 (2), pp. 484–9.
Nasal mucosal blood flow, assessed by a laser Doppler probe technique, and the concentration of eosinophils in nasal secretions were quantified during challenge of one nostril with ryegrass-pollen antigen and the other nostril with diluent alone in seven patients with ryegrass-allergic rhinitis. The identical studies were repeated after an 8-week course of 3.5 gm/day of eicosapentaenoic acid (EPA). Ryegrass antigen evoked mean rises in nasal blood flow of 30% to 100% after 10 and 30 minutes that were significant, relative to prechallenge levels and to levels after diluent challenge, both before and after EPA. Antigen-induced increases in nasal blood flow were significantly less after than before EPA at 10 minutes, and at 180 minutes increases were significant only before EPA. In ryegrass-allergic patients with rhinitis who did not take EPA between the two studies, the increases in blood flow after antigen challenge were the same on both occasions. Similarly, the nasal eosinophilia elicited by antigen was significant at 180 minutes only before EPA. Both a composite index of signs and symptoms and the constituent variables, reflecting the clinical response to antigen challenge, were unaffected by EPA. The suppression by EPA of responses of nasal blood flow and nasal eosinophils to antigen challenge supports a role for fatty acid and phospholipid mediators in allergic rhinitis, but the clinical assessment did not provide evidence for any symptomatic benefit from EPA. Author.

Argon laser treatment of the red nose. Dicken, C. H. Department of Dermatology, Mayo Clinic, Rochester, MN 55905. *Journal of Dermatology and Surgical Oncology* (1990) Jan, Vol. 16 (1), pp. 33–6.
Ten patients with red noses due to telangiectasias were treated with the argon laser. Seven had telangiectasias due to rosacea, two had had rhinoplasty, and one had experienced trauma. All the patients had a good clinical result. Author.

Localized myxedema on the nasal dorsum in a patient with Graves' disease: report of a case. Akasu, F., Takazawa, K., Akasu, R., Onaya, T. Third Department of Internal Medicine, University of Yamanashi Medical School, Japan. *Journal of Endocrinological Investigation* (1989) Nov, Vol. 12 (10), pp. 717–21.
We report the case of a 56-year-old Japanese female with Graves' disease associated with localized myxedema on the nasal dorsum. The patient developed localized myxedema concomitantly with hyperthyroidism before antithyroid therapy was given. The lesion was totally removed surgically as it was small and well circumscribed. Although unusual locations of localized myxedema have been reported elsewhere, there is to date no case of localized myxedema on the nasal dorsum without involvement of the pretibial area reported in the literature. We discuss this unique feature of our patient. Author.

A case of progressive aphasia without dementia: 'temporal' Pick's disease? Scheltens, P., Hazenberg, G. J., Lindeboom, J., Valk, J., Wolters, E. C. Department of Neurology, Free University Hospital, Amsterdam, The Netherlands. *Journal of Neurology, Neurosurgery and Psychiatry* (1990) Jan. Vol. 53 (1), pp. 79–80.
We report a patient who suffered from progressive aphasia for nine years, before developing mild behavioural disturbances. Sequential computed tomography (CT) scanning and magnetic resonance (MRI) imaging showed progressive bilateral temporal atrophy. The case is thought to be a temporal form of Pick's disease, in which isolated progressive aphasia was the only symptom over many years. Author.

Radiation-induced bilateral cystic temporal lobe necrosis: reversal of memory deficit after fenestration and internal shunting. Case report. Bederson, J. B., Harsh, G. R. 4th, Walker, J. A., Wilson, C. B. Department of Neurological Surgery, School of Medicine, University of California, San Francisco. *Journal of Neurosurgery* (1990) Mar, Vol. 72 (3), pp. 503–5.
The authors report a case in which bilateral cystic temporal lobe necrosis developed after treatment of nasopharyngeal lymphoepithelioma with 7000 cGy of external beam radiation. The patient presented with an isolated memory deficit that was documented by neuropsychological testing. After fenestration and internal shunting of both cysts, there was striking resolution of the lesions and of the memory deficit. Author.

The versatile frontal sinus approach to the floor of the anterior cranial fossa. Technical note. Persing, J. A., Jane, J. A., Levine, P. A., Cantrell, R. W. Department of Plastic and Reconstructive Surgery, University of Virginia Health Sciences Center, Charlottesville. *Journal of Neurosurgery* (1990) Mar, Vol. 72 (3), pp. 513–6.
A technique to expose the anterior cranial base is described with entry through the anterior and posterior walls of the frontal sinus. Burr holes are avoided in the visible portion of the forehead. Expansion of the operative field may be accomplished, if necessary, by supplemental superior frontal or supraorbital rim osteotomy. The technique is rapid, safe, and provides excellent operative exposure and superior cosmetic results. Author.

Bone scanning for evaluating mandibular bone extension of oral squamous cell carcinoma. Soderholm, A. L., Lindqvist, C., Hietanen, J., Lukinmaa, P. L. Department of Oral and Maxillofacial Surgery, Helsinki University Central Hospital, Finland. *Journal of Oral and Maxillofacial Surgery* (1990) Mar, Vol. 48 (3), pp. 252–7.
Inability to control the primary tumor in oral cancer, leading to local recurrence, results in low survival rates. The extent of bone involvement is therefore a critical factor in planning treatment. To evaluate whether uptake of 99mTc-DPC (dicarboxypropane-diphosphate) was reliable in demonstrating the extent of mandibular involvement, 13 consecutive patients with squamous cell carcinoma of the mandibular gingiva, floor of the mouth, and lower buccal sulcus were studied. Bone involvement, as judged from preoperative radiographs and bone scans, was compared with that determined through careful analysis of histologic sections of jaw specimens. The bone scan findings corresponded well with the histologic findings in 10 cases. In contrast to earlier studies, there were no false-positive findings. False-negative bone scans were seen in three cases in which there was infiltration of the upper cortex of the mandible. A negative bone scan, therefore, cannot guarantee absence of bone involvement. Nevertheless, bone scanning seems to provide valuable information for preoperative evaluation of evident tumor infiltration of bone. Author.

Tumors metastatic to the mandible: analysis of nine cases and review of the literature. Sanchez-Aniceto, G., Garcia-Penin, A., de la Mata Pages, R., Montalvo-Moreno, J. J. Oral and Maxillofacial Surgery Unit, Hospital 12 de Octubre, Madrid, Spain. *Journal of Oral and Maxillofacial Surgery* (1990) Mar, Vol. 48 (3), pp. 246–51.
Metastases to the mandible are rare. In this article, nine cases of tumors metastatic to the mandible of various origins and locations, including metastasis to the condyle, are reported. The most common primary tumor was breast adenocarcinoma (three cases). The clinical features, diagnosis, and treatment of metastatic lesions, especially emphasizing clinical and radiologic aspects, are described, and a review of the literature is presented. Author.

Vibratory characteristics of Teflon-injected and noninjected paralyzed vocal folds. Watterson, T., McFarlane, S.C., Menicucci, A. L. School of Medicine, University of Nevada-Reno. *Journal of Speech and Hearing Disorders* (1990) Feb, Vol. 55 (1), pp. 61–6.
This study compared the vibratory characteristics of normal vocal folds, Teflon-injected paralyzed vocal folds, and noninjected paralyzed vocal folds. Laryngeal videostroboscopy under eight phonatory conditions showed that the Teflon-injected vocal folds were adynamic. The noninjected vocal folds, however, vibrated during each of the phonatory conditions although not necessarily like a normal vocal fold. In terms of vocal fold physiology, it appeared that the noninjected paralyzed vocal folds were too compliant, whereas the Teflon-injected vocal folds were too stiff. Because vocal fold paralysis is often treated in voice therapy with 'digital manipulation' and 'head turning,' the effect of these techniques on vocal fold vibration was also studied. The results showed that digital manipulation was superior to head turning for improving glottal closure but that neither technique appeared to influence the periodicity, amplitude, or extent of vocal fold vibration for either the injected or noninjected vocal folds. Author.

Functional mandibular reconstruction of patients with oral cancer. Buchbinder, D., Urken, M. L., Vickery, C., Weinberg, H., Sheiner, A., Biller, H. Division of Oral and Maxillofacial Surgery, Mount Sinai School of Medicine, New York, N.Y. *Oral Surgery, Oral Medicine, Oral Pathology* (1989) Oct, Vol. 68 (4 Pt 2), pp. 499–503; discussion 503–4.
For the patient with oral cancer who has undergone quadrant

resection, mandibular reconstruction provides normalization of the lower facial contour, regained architectural support, and reestablishment of occlusal relationships. Reconstruction with vascularized bone offers the most rapid rehabilitation. Replacement of dentition provides improved deglutition, mastication, and speech. In eligible patients the use of osteointegrated implants can provide rigid stabilization for dental prostheses. In previous studies these implants were placed in a secondary procedure. In the present study microvascular mandibular reconstruction was combined with primary placement of osteointegrated implants in the treatment of seven patients. Preliminary results indicate that the combination of procedures can provide more rapid and effective rehabilitation for the patient with cancer. Issues for further study are also identified. Author.

Sarcoidosis. Report of two cases with oral involvement. Hildebrand, J., Plezia, R. A., Rao, S. B. Sinai Hospital of Detroit, Mich. *Oral Surgery, Oral Medicine, Oral Pathology* (1990) Feb, Vol. 69 (2). pp. 217–22.
Sarcoidosis is a multisystem granulomatous disease in which pulmonary involvement is the most characteristic feature. Even though extrapulmonary manifestations occur infrequently in the area of the head and neck an occasional patient will have oral involvement. As we will demonstrate in these case reports, sarcoidosis should be included in the differential diagnosis of oral and perioral papular lesions noted on examinations of the head and neck. Author.

Bimaxillary hyperplasia: the facial expression of homozygous beta-thalassemia. Hes, J., van der Waal, I., de Man, K. Department of Oral and Maxillofacial Surgery, Academic Hospital, Rotterdam-Dijkzigt, The Netherlands. *Oral Surgery, Oral Medicine, Oral Pathology* (1990) Feb, Vol. 69 (2), pp. 185–90.
A boy born in Curaccoa, who was 6 years old at his initial visit and known to have homozygous beta-thalassemia, is described. Emphasis is directed to the typical facial expression. The possibility of surgical treatment of the maxillary hypertrophy is discussed. However, in view of the limited life expectancy of these patients, correction should not be performed before adolescence. Author.

A controlled trial comparing three treatments for chronic otitis media with effusion. Giebink, G. S., Batalden, P. B., Le, C. T., Lassman, F. M., Buran, D. J., Seltz, A. E. University of Minnesota Otitis Media Research Center, Department of Pediatrics, Minneapolis. *Pediatric Infectious Diseases Journal* (1990) Jan, Vol. 9 (1), pp. 33–40.
A randomized, controlled clinical trial was conducted in 76 childen to evaluate the efficacy of trimethoprim-sulfamethoxazole for 4 weeks, prednisone for 2 weeks and aluminium ibuprofen suspension for 2 weeks in resolving chronic otitis media with effusion which had persisted for more than 8 weeks. After 2 weeks of treatment resolution rates of chronic otitis media with effusion in the prednisone and trimethoprim-sulfamethoxazole groups were significantly greater than those in the control (no treatment) and ibuprofen groups. After 4 weeks the differences in resolution rates between the control, trimethoprim-sulfamethoxazole and prednisone groups became smaller. After 12 months of follow-up, differences in hearing sensitivity among study groups were not statistically significant, although 83% of patients had a 15-dB or greater hearing loss. Therefore, short-term antimicrobial and anti-inflammatory treatment did not appear to have a long lasting effect on chronic middle ear inflammation. Author.

Cost-effectiveness of rapid latex agglutination testing and throat culture for streptococcal pharyngitis (see comments). Lieu, T. A., Fleisher, G. R., Schwartz, J. S. Dana Scholars Program, University of Pennsylvania, Philadelphia. *Pediatrics* (1990) Mar, Vol. 85 (3), pp. 246–56.
Decision analysis was used to evaluate the cost-effectiveness of four alternative strategies for management of pharyngitis in children ('treat all,' 'antigen test alone,' 'culture alone,' 'antigen test + culture'). In the model, estimates of test sensitivity and specificity, disease prevalence, treatment rates after positive test results, rates of complications for treated and untreated patient-cases, rates of antibiotic-induced complications, treatment effectiveness, and direct dollar costs of diagnosis and therapy were used. Results were expressed in terms of severe penicillin reactions per disease case prevented and dollars per complication prevented. Sensitivity analysis was performed to assess the impact of changes in parameter estimates on model outcomes. With treat all, 90% of streptococcal complications were prevented and there were low short-term direct dollar costs. However, treat all is associated with a high rate of penicillin allergy (70% of which occurs in uninfected children) and is the least cost-effective strategy when the costs of treating complications are included. The marginal cost of antigen test + culture is less than the cost of either one-test strategy. Antigen test + culture is the most cost-effective strategy when the costs of managing the complications of streptococcal infection are considered. Antigen test + culture is the most clinically effective strategy, and its benefits are obtained at a modest marginal cost relative to the one-test strategy. Author.

Otitis media in children with learning disabilities and in children with attention deficit disorder with hyperactivity. Adesman, A. R., Altshuler, L. A., Lipkin, P. H., Walco, G. A. Division of Developmental and Behavioral Pediatrics, Schneider Children's Hospital, Long Island Jewish Medical Center, New Hyde Park, NY 11042. *Pediatrics* (1990) Mar, Vol. 85 (3 Pt 2), pp. 442–6.
A retrospective study was conducted to compare history of middle ear disease children with an attention deficit disorder with hyperactivity (ADD-H) and children with a learning disability. Of 138 children evaluated in a child development clinic, learning disability without ADD-H was diagnosed in 45 (29 boys, 16 girls; mean age=9.5 years) and ADD-H without learning disability was diagnosed in 21 (17 boys, 4 girls; mean age=8.5 years). Based on parental report, children with ADD-H had significantly more complaints of earaches during the preceding 3 months and significantly more ear infections during the preceding year. Specifically, no between-group differences were observed for total number of ear infections since birth, extended antibiotic therapy, tympanostomy tube placement, or recent hearing problems. Although middle ear disease in preschool children has repeatedly been linked to later language deficits, this study suggests that middle ear disease in school-age children may also be associated with hyperactivity and/or inattention, independently of learning disability. Author.

MR findings of cartilage invasion by laryngeal cancer: value in predicting outcome of radiation therapy. Castelijns, J. A., Golding, R. P., van Schaik, C., Valk, J., Snow, G. B. Department of Radiology, Free University Hospital, Amsterdam, The Netherlands. *Radiology* (1990) Mar, Vol. 174 (3 Pt 1), pp. 669–73.
Thirty-nine patients who underwent radiation therapy with curative intent for laryngeal cancer were examined before treatment with magnetic resonance (MR) imaging, between November 1985 and January 1987. MR findings of cartilage invasion were correlated with the effectiveness of radiation treatment. Adequate interpretation of the MR examinations was not possible in four cases (10%). Cartilage invasion was found in 16 of 35 remaining patients and was found even in small glottic lesions, clinically staged as T1b and T2. Laryngeal cancer recurred in 10 of the 16 patients with cartilage invasion shown by MR imaging. The presence of even small foci of invasion of the thyroid cartilage by laryngeal cancer appeared to increase the subsequent risk of tumor recurrence. Cartilage invasion seen at MR imaging might therefore shift the preference to partial laryngectomy as the initial treatment for small glottic tumors. Alternatively, radiation therapy alone would appear to require stringent follow-up to detect possible recurrence. Author.