Abstract Selection


Respiratory epithelial mast cells are an expression of airway inflammatory processes. Nasal epithelial mast cells are known to be increased in allergic rhinitis and have now been examined in patients with nasal polyps. Metachromatic cell counts (mean ± standard error) expressed as the sum of large mast cells, atypical mast cells and basophils in epithelial scrapings of the inferior turbinates, assessed after Carnoy’s fixation and toluidine blue staining (pH 0.5), were 37 ± 5 in non-allergic normal control subjects (n = 11), 435 ± 130 in polyp patients who were allergic (n = 18), and 699 ± 267 in polyp patients who were not allergic (n = 8).

Metachromatic cell counts in epithelial scrapings obtained in vivo from nasal polyps of allergic patients (n = 8) were 1769 ± 962, and 2308 ± 1544 from polyps of non-allergic patients (n = 5); metachromatic counts were 2089 ± 633 in epithelial scrapings from excised polyps of allergic patients (n = 14) and 2214 ± 640 from polyps of non-allergic patients (n = 13). It is concluded that the number of metachromatic cells in the epithelium of nasal polyps and the adjacent nasal mucosa is elevated compared with normal nasal epithelium and the increased number does not depend upon allergy. Author.


In an open study, 21 patients suffering from chronic non-seasonal rhinitis and allergic to house mites (HDM) have been treated for one year with either a new extract (Pharmalgen; n = 10) or an allergoid, pyridine denatured, extract (Alavac; n = 11), both precipitated with A10H3 (depot). The following investigations were performed before and after therapy: clinical scoring (for four weeks), quantitated skin prick tests (SPT) and nasal provocation tests (NPT) with HDM, and determination in serum of HDM-specific IgE and IgG. Both groups were compared with six patients who remained untreated and underwent the same investigations. Hyposensitization with either extract induced an improvement in clinical scores (P < 0.05), a decrease in SPT reactivity (Pharmalgen: P < 0.001; Alavac: P < 0.01), a marked increase in the nasal tolerance to HDM (P < 0.001) and in HDM-specific IgG (P < 0.001). In the group of untreated patients, all these parameters remained unchanged. Compared with the Alavac extract, the Pharmalgen extract was more active in decreasing SPT reactions (P < 0.05) and inducing a HDM-specific IgG rise (P < 0.05). Although both extracts induced some untoward allergic reactions, no adrenaline was used at any time during the study. These data suggest that hyposensitization with depot extracts of HDM can be considered a safe and active adjunct to the treatment of allergic rhinitis. Author.


This multicentre, double-blind, randomized parallel-group study compared three weeks’ treatment with either loratadine (Claritin) or 10 mg once daily, or clemastine (Tavagel) 1 mg twice daily, and placebo in outpatients with perennial allergic rhinitis. One hundred and fifty-five patients were evaluated for efficacy and safety. Grading of four nasal and three non-nasal symptoms, rhinoscopy signs, and therapeutic response was performed on treatment days six, 13, and 20. Patients recorded daily symptoms and possible adverse experiences in a diary, also indicating when symptoms of active rhinitis were relieved. Loratadine and clemastine were statistically significantly superior to placebo throughout the study (P < 0.05), based on assessment of patients’ nasal and eye symptoms, patients’ diary scores, rhinoscopy signs of symptoms, and onset of relief. The loratadine group showed a statistically significantly (P < 0.05) faster onset of relief of symptoms compared with the group treated with clemastine. Concerning nasal stuffiness, loratadine was significantly (P < 0.05) superior to clemastine after one week’s treatment. Reports of adverse reactions showed that significantly (P < 0.05) more patients complained of sedation in the clemastine than in the loratadine group. Regarding other adverse experiences and laboratory tests, the three treatment groups were statistically comparable (P < 0.05). The study showed that compared with placebo both loratadine and clemastine were effective in relieving nasal and eye symptoms in patients with perennial allergic rhinitis. Loratadine was safe and well tolerated and was significantly less sedative than clemastine; loratadine may therefore possess an advantage in clinical use in the treatment of perennial allergic rhinitis. Author.


We report a previously undescribed complication of tracheal intubation. The complication arose as a result of tracheal intubation performed as an emergency procedure in a patient with an abnormal anteriorly placed larynx. Subsequent corrective laryngeal surgery was required after a temporary tracheostomy had been performed. Author.


Decision analysis and opinion survey suggest that introduction of rapid antigen detection tests should decrease the number of patients with negative test results for group A streptococcal pharyngitis treated by antibiotics. We reviewed all cases in which a test for group A streptococcal pharyngitis was performed during the last seven months of culture diagnosis and the first seven months of antigen test diagnosis at an inner city community health center, recording culture or antigen test results, whether antibiotics were prescribed, and patient status (as regular health center patients or patients referred to the centre). Positive rates for culture and antigen test periods were similar (10 and 12 per cent), but 53 per cent of patients with negative culture were treated, where only 32 per cent of patients with negative antigen-test results received prescriptions. Significant reductions in the treatment of patients with negative test results were found in both patient-status subpopulations: health center patients, 43 to 29 per cent; referred patients, 91 to 52 per cent. Among health center patients reductions were consistent for both adult (30 to 21 per cent) and child and adolescent (55 to 45 per cent) age groups. For all patients with negative test results, direct costs of diagnostic reagents and antibiotic prescriptions fell from $3.58 per patient with culture to $3.45 with antigen testing; the $0.13 savings per patient was due to less treatment of referred patients. Thus, rapid antigen testing led to (1) significantly fewer patients with negative test results receiving antibiotic prescriptions; and, (2) savings in antibiotic costs offsetting reagent cost of antigen detection diagnosis. Author.

Diagnosis of group A beta-hemolytic Streptococcus using clinical

Six young adult Sprague-Dawley rats were unilaterally cochleostomized, brainstem auditory-evoked responses (BAERs) to clicks and to 1-, 2-, 4-, 8-, and 16-kHz tone bursts were obtained. In addition, response thresholds were estimated before and after ossicular disruption in the non-cochleostomized ear of four animals. With increasing tone burst frequency, there was a decrease in BAER peak latencies as well as a decrease in threshold. With increasing click and tone burst intensity, there was a decrease in peak latencies and an increase in peak amplitudes. BAER peak latency/intensity functions to click stimuli ranged from 0.013 to 0.018 ms DB. With increasing tone burst frequency there was a decrease in the slope of the latency/intensity function. Following ossicular disruption, BAER thresholds to clicks were elevated by an average of 49 DB. Threshold shifts to tone burst stimuli were smallest for 1- and 2-kHz tone bursts (10 DB) and increased with increasing frequency up to a maximum of 65 DB for 16-kHz tone bursts.


Prognostic information is essential for the evaluation, judgement and optimal treatment of patients with squamous cell cancers (SCCs) of the upper aerodigestive tract. Using immunohistochemical and flow cytometric techniques, we have studied the significance of cellular expression of the Ki-67 antigen, epidermal growth factor receptor (EGFR), the transferrin receptor (TFR) and DNA ploidy status in a prospective analysis of patients with SCCs of the head and neck region. All 42 fresh tumour samples (five well differentiated; 28 moderately differentiated; nine poorly differentiated) were evaluated. Immunohistochemical expression of Ki-67 was assessed in the undamaged and tumour-stained sections of all primary tumours and in paraffin-embedded, microtome-cut sections of 20 lymph node metastatic lesions of the same SCCs.


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antibody was assessed as low (less than 10 per cent) in 15 samples (35.8 per cent), intermediate (10-30 per cent) in 19 samples (45.2 per cent) and high (greater than 30 per cent) in eight samples (19 per cent). Eleven of 15 samples (73 per cent) with a low percentage reactivity were DNA diplodid, whereas seven of eight samples (87.5 per cent) with a high percentage reactivity were DNA aneuploid. Poorly differentiated SCCs were significantly more often aneuploid than were either moderately or well differentiated tumours. Our results suggest that EGFR and TFR are widely distributed on SCCs, especially on proliferating cells at the invading tumour mar-
gin. In addition, there is a close spatial correlation between cells expressing EGFR, TFR and those expressing the Ki-67 antigen. Tumours in which the staining intensity for both EGFR and TFR was intense invariably expressed the Ki-67 antigen in a high proportion of cells. Further patient follow-up will be important in determining whether intense EGFR and TFR staining, combined with a high percentage reactivity with Ki-67 antibody and DNA aneuploidy, will ultimately define a subset of head and neck cancer patients with a poor clinical outcome. Author.


Twenty-two children and adolescents who had received cisplatin for the treatment of solid tumours underwent audiometry to ascertain the extent of hearing damage. Five patients complained of hearing difficulties, causing difficulty at school in one child. Hearing loss greater than 20 decibels occurred in four patients at 1,000 Hz, seven at 2,000 Hz, 13 at 4,000 Hz and 21 at 8,000 Hz. Median hearing loss was greater at higher frequencies (P less than 0.0001), and with increasing cumulative dose of cisplatin. How-
ever, a ‘plateau’ phenomenon was observed, with no apparent further deterioration in hearing loss at doses greater than 600 mg m⁻². Two children who had received prior aural radio-
therapy had severe hearing loss. Severe, mostly asymptomatic, ototoxicity is common in children given cisplatin. However, there is considerable interpatient variability in the hearing loss suf-
f ered. Author.


To identify high and low risk groups for laryngeal cancer in Denmark, all individuals aged 30-74 in the 1970 census were fol-
lowed up over 10 years. Census data were linked with the Central Population Register to identify persons who died or emigrated during the follow-up, and with the Danish Cancer Register to iden-
tify cases of laryngeal cancer. Individuals were categorized accord-
ing to socioeconomic and sociodemographic characteristics as derived from the census forms. A multivariate analysis was carried out by means of multiplicative Poisson models. The study showed that the risk of laryngeal cancer was strongly related to sociodemographic factors. The risk for skilled workers living in Copenhagen (relative risk (RR) 4.76, 95 per cent confidence interval (CI) 3.61-6.28) was estimated to be almost five times higher than the risk for men self-
employed in agriculture and living in rural areas. The variation in the risk of laryngeal cancer is not fully explained by known vari-
tions in tobacco and alcohol consumption, and this study highlights additional risk factors particularly related to occupation and mar-
tial state. Author.

Oropharynx carcinoma: irradiation alone versus induction chemo-
therapy plus irradiation—5 year results. Calais, G., Reynaud-

Induction chemotherapy (CT) has demonstrated overall response rates of 80 per cent for oropharynx carcinomas, but no overall sur-

vival benefit has been reported. In order to determine the value of induction CT for such patients, we conducted a retrospective study: 121 patients were treated with CT and radiotherapy (RT) (Group One). This group was compared with a historical group of 84 patients treated by RT alone (Group Two). The CT used was Cisplatin associated with Bleomycin and Vincristin or Vindesin and with five Fluoro-uracil. An objective response to CT was observed for 41 per cent of patients. The five-year actuarial survival rate was 19 per cent for Group One and 24 per cent for Group Two. Patterns of failure were identical in the two groups. The only differ-
ence observed was for patients with N3 nodes (26 per cent of five year survival rate in Group One versus Two per cent in Group Two) (p = 0.05). This result did not depend on the histological differ-
entiation, the tumour site or the type of CT. We conclude that this retrospective study failed to demonstrate an advantage for induc-
tion CT in oropharynx carcinoma except for patients with N3 nodes. Author.


Serum from multiple sclerosis (MS) patients can cause demyel-
ination in rat CNS explant cultures and induce cytotoxicity to rat oligodendrocytes in culture. The interpretation of these findings for MS is complicated by the fact that injury to myelin and oligo-
dendrocytes can also be induced with normal human serum. In this study, we confirmed that serum from MS patients and healthy con-
trol subjects can cause in vitro toxicity to rat oligodendrocytes, as established by a 51 Cr release assay, but we did not detect toxicity to human cultured oligodendrocytes. Morphologic changes after 5-6 h incubation with the sera were also extensive in the rat oligo-
dendrocytes cultures. No morphologic changes or changes in cell numbers could be detected in the human cultures upon examination by light microscopy and by immunofluorescent staining with anti-GaCa antibody. Author.


A total number of 564 patients with glottic (427) and supraglottic (137) laryngeal carcinoma was prospectively staged clinicoen-
doscopically (CS) and radiologically (RS). These patients were treated from 1974 to 1985 with quality-controlled high-dose radi-
therapy. The validity of CS versus RS was checked in this study with the parameter of recurrence-free adjusted survival (RFADS) at three and at five years. It appears that RS is more valid and has therapeutic implications in planning the target volume for irradiation. The CS should be regarded as inadequate for radio-
therapeutic considerations. The International Union Against Cancer (UICC) 1987 norms for tumour (clinical, endoscopic, and imaging) should be strictly followed. Author.


Between 1964 and 1983, 54,304 cases of nasopharyngeal carcinoma (NPC) patients were diagnosed at the Tumor Hospital, Sun Yat-
Sen University of Medical Sciences, Guangzhou, People’s Repub-
lic of China. Of the total, 53 (0.1 per cent) cases were younger than 14 years of age, and of these, none were Stage I, four (8 per cent) were Stage II, 36 (68 per cent) were Stage III, and 12 (23 per cent) were Stage IV. Among all cases, 26 per cent had initial symptoms characterized by lesions of the nasopharynx and the majority by cervical mass. Among the children, symptoms involving the cranial nerve were rarely observed. There were significant differences between adults and children on histopathology other than the ratio of carcinoma to sarcoma (4:1 for children; 443:1 for adults). Among the poorly differentiated carcinoma cases, vesicular nucleus carcinoma was observed more frequently in children than adults. The prognosis for children with NPC is poor with a five-year survival rate of 21 per cent in this series. If NPC is diagnosed early and radiotherapy begun promptly (with doses greater than 5000 GY), the prognosis may be improved. Author.

The influence of nasal patency on accelerometric transduction of nasal bone vibration. Moon, J. Department of Speech Pathology
and Audiology, University of Iowa, Iowa City 52242. Cleft Palate Journal (1990) Jul, Vol. 27 (3), pp. 266-70; discussion 270-4. The transmission characteristics of nasal tract energy to a nasal accelerometer were evaluated in relation to nasal airway resistance. Ten adult speakers repeated three utterances while recordings of nasal bone vibration, as detected by miniature accelerometers, were obtained simultaneously from both sides of the nose and referenced to a common throat signal. Average nasal accelerometry results were recorded from the more resistant side of the nose were significantly larger in magnitude than those recorded simultaneously from the less resistant side of the nose. While acceleromter ratio waveforms from each side of the nose essentially overlapped, the differences in growth after pharyngeal flap, suggesting that the superiorly based pharyngeal flap carries no systematic risk of interference with facial growth. Author.

Pharyngeal flap and facial growth. Sembr, G., Shaw, W. C. Odonotolological Department, Bredvict Center for Logopedics, Oslo, Norway. Cleft Palate Journal (1990) Jul, Vol. 27 (3), pp. 217-24. Refs. The present study addressed two questions. Does the skeletal pattern of children with cleft lip and palate who require a pharyngeal flap differ from children with similar clefts who do not follow? Following a pharyngeal flap does the pattern of facial development change? Skeletal form prior to pharyngeal flap was compared using cephalograms in 52 subjects with unilateral cleft lip and palate (UCLP) who subsequently received a superiorly based pharyngeal flap and 52 UCLP controls matched for sex and age. The flap group had slightly smaller maxillary length and anterior face heights and greater mandibular protrusion (p less than 0.5) before the pharyngeal flaps were done. Preoperative and five-year (minimum) postoperative records were analyzed for 29 early pharyngeal flap cases and 29 matched controls. Subsequent growth demonstrated some assimilation of the flap group with the controls, but repeated measures analysis of variance failed to identify any important differences in growth after pharyngeal flap, suggesting that the superiorly based pharyngeal flap carries no systematic risk of interference with facial growth. Author.

Degeneration of speech, language, and hearing in a patient with mucopolysaccharidosis VII. Wallace, S. P., Prutting, C. A., Gerber, S. E. Department of Speech and Hearing Sciences, University of California, Santa Barbara 93106. International Journal of Pediatric Otorhinolaryngology (1990) Jun, Vol. 19 (2), pp. 97-107. Mucopolysaccharidosis VII (MPS-VII) is probably the rarest of the mucopolysaccharidoses; literature reveals only 20 cases. We have had the opportunity to study and treat such a child in our clinic, and this paper documents his speech, language, and hearing. Results demonstrated a delay with respect to his chronological age in all cognitive, linguistic, and social domains. He had a mixed hearing loss which was attributed to the lack of production of phonetic information in his language abilities; he had chronic otitis media. After 59 h of speech and language intervention (over a period of 19 months), primarily for language treatment, standardized tests revealed that his scores had decreased over time. During this period, both his speech production and his hearing got poorer. At about the time of his eighth birthday, he underwent a permanent tracheotomy, altering further therapy. Although MPS-VII is a very rare disorder, what has been learned here may apply to other MPSs and even to other multiply handicapped patients. We hope that the presentation of our findings may assist others when confronted with complex, degenerative disorders. Author.

Subglottic hemangiomas in infants: treatment with intralesional corticosteroid injection and intubation. Meeuwis, J., Bos, C. E., Hoeve, L. J., van der Voort, E. Department of ENT, Sophia Children’s Hospital, Rotterdam, The Netherlands. International Journal of Pediatric Otorhinolaryngology (1990) Jun, Vol. 19 (2), pp. 145-50. Six children with a subglottic hemangioma were treated in the Sophia Children’s Hospital in the period 1982–1987 by means of intralesional corticosteroid injection, followed by intubation. After treatment all children were symptom-free. In three patients this result was attained after one injection, in two after two injections. One patient needed five injections. The average duration of intubation was 19 days (7–36). Three months (0.5–7.5) after the onset of therapy all patients were free of symptoms. No serious complications were observed. No patient needed a tracheotomy. The hospitalization was 3.3 years. We feel that not only the effect of intralesional corticosteroids, but also local gentle pressure by the tube is of therapeutic importance. The above-mentioned treatment of subglottic hemangioma in children is now the treatment of choice in our clinic. Author.

Reductions in overshoot during aspirin use. McFadden, D., Champlin, C. A. Department of Psychology, University of Texas, Austin 78712. Journal of the Acoustical Society of America (1990) Jun, Vol. 87 (6), pp. 2634–42. The overshoot effect was measured before, during, and after the administration of a moderate dose of aspirin. Prior to the drug, detectability of the 6 ms, 3550 Hz signal was 5–11 dB worse when presented 2 ms after the onset of the 200 ms wideband masking noise than when presented 190 ms after masker onset. Following four days of aspirin use, detectability in the long-delay condition was unchanged from the pre-drug value, but (for four of the five subjects) detectability in the short-delay condition improved by about 4–8 dB. Thus the overshoot effect was markedly reduced by aspirin because the drug partially counteracted the normally poor detectability for signals presented soon after masker onset. This paradoxical improvement in detectability was accompanied by an aspirin-induced loss in detectability of 5–16 dB for a 200 ms sample of that same signal presented in the quiet. Similar paradoxical effects have previously been observed in the effect of aspirin on the Cochlear amplifier is discussed in this regard, and also the possibility that the known differences in primary auditory fibers having high and low spontaneous rates may be involved. A supplementary experiment demonstrated that shifting auditory to one side of the stimulus and then the other, while maintaining the cochlear amplifier must be altered in order for overshoot to be diminished. Author.

The time course of acoustic/phonemic cue integration in the sensorineurally hearing-impaired listener. Schum, D. J., Collins, M. J. Medical University of South Carolina, Department of Otolaryngology and Communicative Sciences, Charleston 29425. Journal of the Acoustical Society of America (1990) Jun, Vol. 87 (6), pp. 2716–28. There is limited documentation available on how sensorineurally hearing-impaired listeners (with and without the benefit of amplification) integrate acoustic/phonemic information that are known to be distributed across time in the speech waveform. In this investigation, a group of normally hearing listeners and a group of sensorineurally hearing-impaired listeners (with and without the benefit of amplification) identified various consonant and vowel productions that were produced by a talker who had been learned here may apply to other MPSs and even to other multiply handicapped patients. We hope that the presentation of our findings may assist others when confronted with complex, degenerative disorders. Author.

ABSTRACT SELECTION

rhinitis received placebo or fluticasone propionate aqueous nasal spray at doses of 25, 100, or 400 micrograms twice daily (b.i.d.) for two weeks. Efficacy was evaluated by nasal symptom scores, nasal airflow, nasal cytology, and global evaluation. All doses of fluticasone propionate were significantly better than placebo in reducing symptoms of seasonal allergic rhinitis. Patients receiving the largest dose of fluticasone propionate (400 micrograms b.i.d.) had a slightly greater reduction (not significant) in symptom scores than patients receiving the smallest dose (25 micrograms b.i.d.). Symptom improvement was evident within three days of treatment. Nasal airflow improved in the groups treated with fluticasone propionate, 100 and 400 micrograms b.i.d. Examination of nasal cytograms showed a striking decrease in both eosinophils and basophils in all three groups receiving active treatment compared with placebo. There were few adverse events and no treatment-related abnormalities in laboratory assays or evaluations of hypothalamic-pituitary-adrenocortical axis function. Comparison of treatment groups revealed that the fluticasone propionate aqueous nasal spray was as safe as placebo at the doses studied. Author.


We present a method to assess cross-sectional area (CSA) changes of the extrathoracic airways (EA) by using an inductive plethysmograph (IP) band placed around the upper part of the neck. Measurements of mouth pressure (Pm) (or flow rate, V) and neck CSA changes during respiratory efforts against a high (or infinite) resistance have shown a highly significant relationship between Pm changes (or V changes, respectively) reflecting CSA changes of the EA and CSA changes of the neck. Simultaneous measurements of CSA of the neck (by IP) and of EA (by computerized tomography) during sustained inspiratory and expiratory efforts against a closed airway showed a high correlation between changes in the former and latter structures. Changes in CSA of the neck were larger with positive than negative transmural pressures, in keeping with the known larger compliance of this airway during expiration. We found this method helpful to assess the behavior of the EA during obstructive apnea episodes, hypopneas, and snoring. Author.


We studied 12 consecutive patients with facet joint dislocation in the cervical spine to assess the incidence, site and clinical sequelae of occlusion of the extracranial vertebral artery. Intra-arterial digital subtraction angiography was performed after the orthopedic management of the dislocations. This demonstrated vertebral artery occlusion (one bilateral) in five of the seven patients with bilateral dislocations and in four of the five patients with unilateral dislocations. Two of the nine patients with vertebral artery occlusion had neurological deficits above the level of the injury, all of which resolved spontaneously within two months. In our experience, a distraction-flexion injury appears to be the most common cause of closed traumatic vertebral artery occlusion. Author.


Fifty-eight infants and children with acute otitis media were prospectively studied for bacterial and viral pathogenesis and response to antibiotic therapy. Tympanocentesis for bacterial and viral cultures of middle ear fluids (MEF) was done before and 2–4 days after beginning treatment. Patients were followed until the end of antibiotic course. Bacteria were cultured from the preantibiotic MEF in 74 per cent. Viruses were cultured from the preantibiotic MEF in 11 cases (19 per cent); all of these MEFs also contained bacterial pathogens. A significantly higher proportion of patients with both virus and bacteria (20 per cent) failed to respond with clearing of bacteria 2–4 days into therapy compared with the group with bacteria alone (13 per cent). The patients with persistently positive viral cultures of the MEF seemed to have purulent otitis of longer duration. Presence of Pedicoccus in MEF may interfere with bacteriologic and clinical responses to antibiotic. The mechanism of interference deserves further investigation. Author.


To determine intellectual and linguistic sequelae of middle ear disease, 207 children were randomly selected from a cohort of 498 followed prospectively from birth until age seven years. After controlling for confounding variables, estimated time spent with middle ear effusion (MEE) during the first three years of life was significantly associated with lower scores on tests of cognitive ability, speech and language, and school performance at age seven years. The adjusted mean full-scale WISC-R were 113.1 for those with least time with MEE, 107.5 for those with moderate time, and 105.4 for those with most time. Significant different differences were found for verbal and performance IQ scores. For the Metropolitan Achievement Test, we found that the first three years of life was associated with significantly lower scores in mathematics and reading. Significant differences were found for articulation and use of morphologic markers. After considering time spent with MEE during the first three years of life, time spent after age three years was not a significant predictor of scores on any of the tests administered. Author.


A variety of opinions have been expressed in the literature concerning asbestos and laryngeal cancer. This paper presents an analysis of epidemiological studies based on criteria that prioritized the most heavily exposed cohorts. Emphasis was given to the six cohorts or subcohorts with lung cancer relative risk estimates of 2 or more. The two groups of workers with the highest lung cancer relative risk estimates (4.06 and 3.28) both gave strong support for a causal association of asbestos and laryngeal cancer, with relative risk estimates of 1.91 (90 per cent confidence limits 1.00 to 3.34) and 3.75 (90 per cent confidence limits 1.01 to 9.68), respectively. Confounding with cigarette smoking or alcohol consumption does not explain the findings. Case-control studies gave mixed results, but generally supported the hypothesis. It was concluded that asbestos is a probable cause of laryngeal cancer in view of the reasonable consistency of the studies, the strength of the association in key studies, the evidence for dose-response relationships, and the biological plausibility for asbestos being a cause of laryngeal cancer. Author.


A case of TMJ ankylosis following otitis media and mastoiditis is described and its treatment presented. The infectious etiology of ankylosis is reviewed, with emphasis on mastoid infections. Theories are presented as to the possible mechanisms by which such infections can spread into the glenoid fossa. Author.


The arthroscopic appearance of the temporomandibular joint following acute trauma sufficient to result in mandibular fracture was described in 40 joints in 20 patients. It was found that 38 of 40 joints...
showed evidence of intra-articular damage. Hemarthrosis with shedding of the disc and joint surfaces was the most common finding. The hemarthrosis rapidly resolved but the shedding remained. The degree of damage was related to the site of mandibular fracture with the most damage being seen when the condylar neck was not fractured. Author.


The purpose of this study was to test the hypotheses that newborn infants with moderate serum bilirubin concentrations have depressed Brazelton scores and increased brain-stem conduction time and that serum bilirubin levels correlate with Brazelton behavior scores and brain-stem auditory evoked response changes. Fifty term infants who were enrolled into either a low serum bilirubin group (less than 8 mg/dl) or a moderate serum bilirubin group (10 to 20 mg/dl) were tested with the Brazelton Neonatal Behavioral Assessment Scale and a brain-stem auditory evoked response test. Partial correlation analysis controlling for photo-stimulation and age at admission revealed that increased bilirubin concentration correlated negatively with the Brazelton orientation and with state range clusters and individual Brazelton test items that involve auditory processing. Increased bilirubin concentration correlated with an increased latency of brain-stem auditory evoked response wave 4. An increased interpeak 1–5 (brain-stem conduction time) correlated with the decreased animate visual and auditory item. We conclude that moderate hyperbilirubinemia in term infants affects both infant behavior, as measured by specific components of the Brazelton test, and brain-stem conduction time, as measured by the brain-stem auditory evoked response test. Author.


To determine the frequency of eye and auditory complications and their relationship to drug dosage and iron stores in patients receiving deferoxamine, we studied 52 regularly transfused patients who received deferoxamine by subcutaneous or intravenous infusion in doses from 26 to 136 mg/kg/day, and whose serum ferritin levels of 185 to 1,775 micrograms/L reflected a wide range of iron stores. Forty-nine patients (94 per cent) had no evidence of drug-induced visual or auditory abnormalities. Symptomatic loss of vision and hearing developed in one patient; both problems improved when chelation therapy was stopped. Of the 51 symptom-free patients, heparin-induced thrombocytopenia and glomerulonephritis were each seen in one patient. Implications for management are discussed. Author.


Space Motion Sickness (SMS) is the malady which frequently occurs shortly after attainment of sustained exposure to hypogravity. It is characterized by a variety of symptoms, which may proceed to nausea and eventually vomiting. Natural adaptation usually occurs if exposure to hypogravity is maintained. The condition appears to be the manifestation of motion sickness that is specific to hypogravity. It is associated with otolith-canal and otolith-eye conflict. SMS causes operational significant decrement of performance of spacecraft crews. The condition is likely to be amenable to treatment with anti-motion sickness drugs. It may be possible to reduce any operational effects of SMS by suitable crew selection and training procedures. Author.


A questionnaire was administered to 528 tinnitus patients to obtain data on their reactions to tinnitus. Results include a discussion of: (a) population characteristics, (b) perceptual characteristics, (c) the impact of tinnitus on daily life, and (d) etiology. Significant gender differences are also discussed. Tinnitus was not an occasional phenomenon, but was present for more than 26 days per month in 74 per cent of the patients. Other important findings include: (a) hearing levels at 1000 and 4000 Hz were less than or equal to 25 dB HL for 18 per cent of the tinnitus patients, which suggests that some patients had normal hearing or mild hearing losses; (b) the prevalence of tinnitus in patients with noise-induced hearing loss (NIHL) was 30 per cent for males and only 3 per cent for females; (c) about 25 per cent of the patients reported tinnitus severity had increased since tinnitus onset; (d) the effects of tinnitus were more severe in patients who reported tinnitus as their primary complaint and in patients diagnosed as having Meniere’s syndrome tinnitus; and (e) some patients reported that noise exacerbated their tinnitus, whereas others reported that a quiet background exacerbated their tinnitus. Author.


Certain acoustical consequences of endotracheal intubation were examined in 13 male cardiovascular-surgery patients. Each subject recorded three tokens of a sustained vowel one day before intubation, one day after, upon discharge, and during a follow-up visit. Eight acoustical measures were obtained from the audio-recorded vowels: (a) mean fundamental frequency (Fo), (b) Fo standard deviation, (c) Fo perturbation quotient, (d) mean sound pressure level (SPL), (e) SPL standard deviation, (f) SPL perturbation quotient, (g) spectral flatness of the residue signal, and (h) coefficient of excess. Mean Fo, Fo standard deviation, mean SPL, SPL standard deviation, and coefficient of excess did not differ significantly across recording sessions, although certain predictable trends were apparent. Fo perturbation quotient, SPL perturbation quotient, and spectral flatness of the residue signal varied significantly across sessions, implying that these acoustical measures may be useful in the identification and monitoring of even minor intubation-related laryngeal trauma. Author.

Despite the plethora of information provided by magnetic resonance (MR) imaging that allows differentiation of some substances that are indistinguishable at computed tomography (CT), there are diagnostic problems. In particular, there are several quite disparate substances that all appear as either low signal intensity or signal void on T1-weighted images and even lower signal intensity or signal void on T2-weighted images. These substances include air, desiccated secretion, mycetomas, acute hemorrhage, calcium, bone, and enamel. When they are surrounded by material that has long T1 and T2 relaxation times, a not uncommon MR appearance in the sinonasal cavities, they may be impossible to differentiate from one another. The current explanations for the low signal intensities are presented, the similarities in the MR appearance are illustrated, and the use of CT to resolve diagnostic problems is discussed. CT appears to be the best modality for initially examining patients with suspected routine inflammatory disease or fungal infection. Author.

Tracheal agenesis. Chiu, T., Cuevas, D., Cuevas, L., Monteiro, C. Department of Pediatrics, University Hospital of Jacksonville, University of Florida College of Medicine 32209. Southern Medical Journal (1990) Aug, Vol. 83 (8), pp. 925-30. Tracheal agenesis is a rare congenital anomaly. We report a case and review the cases previously reported. Clinical features that might indicate tracheal agenesis include antenatal polyhydramnios, severe respiratory distress, absence of an audible cry, failure to advance an endotracheal tube beyond the larynx, a palpable distal trachea, clinical improvement after esophageal intubation, and roentgenographic absence of a tracheal air column with an abnormal position of the carina. For immediate management of the affected infant, we recommend intubation of the esophagus with an endotracheal tube to provide an air passage, and determination of the level of the defect by careful use of contrast material and roentgenography. Infants having type I tracheal agenesis may benefit from immediate tracheostomy. Author.