

ABSTRACTS

EAR

A Study of the Morphology of the Sound Conducting Apparatus. ZACCORIA FUMAGALLI. *Archivio Italiano di Otologia*, 1949, lx, Suppl. i, 2.

In this monograph of 323 pages has been studied the anatomy of the sound conducting apparatus in relation to its function in the dog, rabbit, guinea-pig, horse, ox, pig, sheep, cat and man. The tympanic membrane, in all these species, forms a section of a 120° cone, the base being obliquely cut, resulting in an eccentric apex—the umbo—except in the guinea-pig, in which it is central. The handle of the malleus can rotate on its long axis, or can vibrate on the rotatory axis without altering the tension of the tympanic membrane owing to the way the fibres are inserted into the bone. The malleus and the incus may be regarded as a single unit. The malleo-incudal diarthrosis becomes ankylosed in the first few months of infancy, and is fixed in most of the species. Functionally the system is articulated by the incudo-stapedial joint. Morphologically, the apex of the anterior malleolar process is the point at which the sound-conducting apparatus is suspended in the tympanic cavity. The axis of gravity of the system passes from the apex of this process to the lenticular process of the incus. The rotatory axis extends from the apex of the anterior malleolar process of the malleus to the apex of the posterior process of the incus. The ossicular chain can vibrate on the axis of gravity or the rotatory axis according to the amplitudes of vibration of the membrane and handle of malleus. The stapes is suspended in the cavity by two points—the stapedius tendon and the annular ligament. The tendon acts as a pivot on which the stapes vibrate. The axis of gravity is the best for conducting sounds of high frequency, causing the least displacement of the stapes, but the greatest pressure on the perilymph. The rotatory axis is the best for conducting sounds of low frequency—with consequent great displacement of the foot-piece with reduced pressure. Values are given for the various pressures and amplitude at various frequencies, and further research is needed for sounds causing vibrations of ossicles along other axes. The author considers that the results agree in certain respects with those of Békésy and Tullio.

F. C. ORMEROD.

Ménière's Syndrome: A New Drug for Control of the Acute Attack. MILES ATKINSON, New York. *Archives of Otolaryngology*, 1950, li, 312.

The author has found that the compound 5-ethyl-5-(2-methylallyl)-2-thiobarbituric acid is an effective drug for control of vertigo in that variety of Ménière's syndrome in which the onset of the attack is gradual. The effectiveness is increased when riboflavin is administered at the same time, an observation which would make it seem advisable to use this combination in all such cases.

R. B. LUMSDEN.

Abstracts

Penicillin therapy in Acute Suppurative Otitis in Children. T. JERSILD and F. KJØRBOE, Copenhagen. *Acta Oto-Laryngologica*, 1950, xxxviii, 8.

The authors report a series of 266 cases of children suffering from infectious diseases, with acute suppuration in 385 ears. The bacteria demonstrated most frequently were hæmolytic streptococci, then pneumococci, and then non-hæmolytic streptococci. Penicillin was given by injection at first in three doses daily and later in two doses daily, the dosage varying from 40,000 I.U. to 150,000 I.U. according to the age of the child. The average number of days in which the ears were running in the scarlatinal patients was 6.5 days for the penicillin-treated group as compared with 36.5 days in the untreated group, and the percentage of mastoid operations was 3.5 for the penicillin-treated cases and 30.3 for the untreated cases. In about one-fourth of all patients a relapse of the ear condition appeared within three months.

R. SCOTT STEVENSON.

The Influence of Streptomycin on the Vestibular System. A. P. H. A. DE KLEYN and J. B. VAN DEINSE, Amsterdam. *Acta Oto-Laryngologica*, 1950, xxxviii, 3.

A description is given of an experimental investigation into the toxic influence of streptomycin on the vestibular system in rabbits. It appears that in most cases first the semicircular canal reflexes are eliminated and much later the otolith reflexes. The development of dissociations in the semicircular canal reflexes, a positional nystagmus of varying direction and the disappearance of the Bechterew nystagmus justify the conclusions that streptomycin exercises a paralysing influence upon the central vestibular nuclear region. (Authors' abstract.)

NOSE

Streptomycin in Ozæna. VITTORIA MESOLELLA. *Archivii Italiani di Laringologia*, 1949, lvii, 377.

The method of Frenken of Holland of instilling thrice daily a one-in-thirty solution of streptomycin in normal saline into the nose in cases of atrophic rhinitis with ozæna has been elaborated and developed. The author has either instilled 1.5-2.0 c.cm. of the solution every 3 or 4 hours during the 24, or he has inserted a loose gauze pack impregnated with the solution into the nose for 24 hours, and then continued with the instillation. In some cases he has alternated the two methods. The method of packing has the advantage of keeping the solution in contact with the mucosa and does not distress the patient, though several patients complained of irritated and painful noses after a few days. The crusting and the smell disappear very quickly after a few days treatment, and these results are made more permanent by a course of injections of streptomycin—four doses of $\frac{1}{8}$ gr. daily. In the pharynx, crusting is treated by spraying of the saline solution every 4 hours. The author has found that the application of streptomycin powder every 4 or 5 hours to the larynx or trachea gives better results than aerosol therapy. The results of this treatment have been very satisfactory, and besides the disappearance of the secretions, there is an improvement in the appearance and blood supply of the mucosa.

F. C. ORMEROD.

Larynx

Malignant Melanoma of the Nose and Sinuses. JOSEPH G. SCHOOLMAN and HAROLD W. ANDERSON, Chicago. *Annals Otol., Rhin. and Laryngol.*, 1950, lix, 124.

The authors add six additional cases of malignant melanoma of the nose and nasal sinuses to the 38 previously reported in the literature; two of them are believed to be the first reported as originating in the nasal vestibule. They believe that the condition should not be considered radio-resistant; some tumours are affected by irradiation either primarily or secondarily due to interference with their blood supply. Biopsy, cautery and diathermy seem to stimulate metastasis, and wide excision with the cold knife or irradiation appear to be the methods of choice. The prognosis nevertheless is poor—three patients are dead, two are still under prolonged treatment, and one (who entered hospital in September, 1946) is comfortable and in fair condition.

R. SCOTT STEVENSON.

LARYNX

Surgical Treatment of Bilateral Abductor Paralysis of the Larynx. JOHN H. BARRETT, Houston, Texas. *Annals Otol., Rhin. and Laryngol.*, 1950, lix, 112.

The author describes the technique of an operation for the relief of bilateral abductor paralysis of the larynx which employs the principles of both Kelly's operation and Woodman's approach. A horizontal incision through the previous thyroidectomy scar gives adequate exposure to work on either side of the larynx. The larynx can be mobilized as thoroughly as by any other procedure. Transfixing the suture in the thyro-arytenoid muscle through the lamina of the thyroid cartilage draws the cord into the same position of abduction as Kelly obtains with his window technique, and preserves the wing of the thyroid cartilage to serve as an anchoring base for the vocal cord.

R. SCOTT STEVENSON.

ŒSOPHAGUS

Association of Achalasia of Cardia with Oesophageal Carcinoma. K. SICHER, Coventry. *British Medical Journal*, 1950, i, 1117.

The author, who published a similar case in 1947, reports the case of a patient with long-standing achalasia, symptom-free for nearly ten years without any treatment, whose occasional difficulty in swallowing began suddenly to increase in severity. X-ray showed marked dilatation of the œsophagus due to cardiospasm and a constriction in the œsophagus. Œsophagoscopy revealed an ulcerating growth in the œsophagus about 7 cm. from the cardia, which biopsy proved to be an anoplastic squamous carcinoma. She died after operation. The author emphasizes the difficulties of diagnosis and the importance of œsophagoscopy in doubtful cases.

R. SCOTT STEVENSON.

Abstracts

MISCELLANEOUS

Relationship between Trauma and Tumour with Reference to a case of Intracranial Meningioma. GIUSEPPE SALERNO. *Archivii Italiani di Laringologia*, 1949, lvii, 292.

The author, after discussing the literature on the meningiomata, describes the anatomical and clinical picture, the problems of diagnosis and of differential diagnosis and the importance of radiological examination. He describes a case of endothelioma of the dura mater which gave evidence of its presence 40 days after an injury to the head. Diagnosis was difficult, due to marked variations in the picture as the disease progressed, but was greatly assisted by accurate radiography. The author does not think that the growth of the tumour was occasioned by the injury, but is of opinion that the tumour was already present, and was stimulated into intense productive activity by the injury.

F. C. ORMEROD.

Evaluation of Irradiation of Pharyngeal and Nasopharyngeal Lymphoid Tissue. FRANCIS L. LEDERER, Chicago. *Annals Otol., Rhin. and Laryngol.*, 1950, lix, 102.

The author comes to the conclusion that, considering all the available evidence, irradiation of the nasopharynx by the standardized techniques is without danger. It should, however, be used with restraint and in technically knowledgeable hands, because of our incomplete knowledge of radiobiology and the empiricism of the present dosage. The warning of the danger to the careless technician himself must be respected. The use of irradiation in irreversible hearing deficits is to be deplored and discouraged. In competent hands, there is no great advantage from radium over X-ray irradiation. The increasing prevalence in America of routine post-operative irradiation of the nasopharynx is, in Lederer's opinion, an admission on the part of the otolaryngologist that the operation has been technically inadequate.

The Treatment of Bell's Palsy with Histamine. D. A. SKINNER, Newark, Ohio. *Annals Otol., Rhin. and Laryngol.*, 1950, lix, 197.

The author has treated 19 cases of Bell's palsy by subcutaneous injections of histamine diphosphate every two or three days, on the basis that inasmuch as Bell's palsy is a vasospastic disease, treatment must be directed towards vasodilatation or "breaking the block". In nearly all cases treatment was started by giving low doses, usually 0.1 c.cm. of a 1 in 10,000,000 dilution and gradually increasing until the optimum effective dosage was reached. In 16 cases, or 84 per cent., improvement was rapid, the average being 19 days and the shortest recovery in 4 days.

R. SCOTT STEVENSON.