

ABSTRACTS

EAR

Cochlear Signs of Streptomycin Intoxication. J. E. HAWKINS, JR. and N. J. RAHWAY. *Journal of Pharmacology and Experimental Therapeutics*, 1950, c, 38.

This experimental study was carried out on nine cats which were given doses of streptomycin approaching the limit of tolerance. There were twelve normal control animals. The method used to demonstrate the hearing loss in these anaesthetized animals was stimulation of the ear in a sound field, the electrical response of the cochlea being observed on a cathode ray oscilloscope, one lead being taken from the region of the round window, whilst the indifferent electrode was attached to the skin.

It was noted that the maximum amplitude of the response to tones was decreased. There was little correlation between the duration of treatment and the severity of the effect. The losses in the right and left ears of a given animal were not necessarily symmetrical. The elements first affected by streptomycin were those normally responsive to the upper frequencies. The response to clicks showed a greater deficit of the aural microphonic than of the nerve action potentials. As the intensity of stimulation was increased, growth of the microphonic response was less rapid than normal; the action potentials on the other hand grew at the same rate as that of the controls. This depression of the microphonic response to clicks was interpreted as evidence that elements of the organ of Corti, responsive to high frequencies, which predominated in the sharp click used in these experiments, were the first to be affected by streptomycin.

The effect differed from that of quinine, of anoxia, and of exposure to loud sounds, which depressed the response of the auditory nerve fibres before they affected the microphonic. The findings suggest that the toxicity of streptomycin for the auditory system includes an action upon the structures within the cochlea—*i.e.* that the toxic effect is peripheral.

F. BOYES KORKIS.

The Maginot Line of Otology: Dependence on Antibiotics in Suppurative Middle-Ear Disease. Facts and Fancies. FRANCIS L. LEDERER, Chicago. *Archives of Otolaryngology*, 1950, lii, 533.

The treatment of acute otitis media has not changed. Virulency of the invading organism and the basic mechanical problems of the cavum tympani and the eustachian tube are the same. The majority of middle-ear infections of this day that respond to antimicrobial agents are the very same types (otitis media simplex) which responded to the magic of phenol-glycerine drops; the ears treated today are the very same ears for which exaggerated claims were made that they "drained by way of the Eustachian tube". The

Nose

most humane and the best protection against future suppurative chronicity and adhesive process leading to varying degrees of deafness is still a well performed incision of the tympanic membrane. Then, and then only, should the antimicrobial therapy be instituted on the basis of organism-sensitivity, sufficient concentration in contact with the infecting microbes and in such amounts as to destroy them over an adequate period of administration.

R. B. LUMSDEN.

NOSE

Antrochoanal Polyp. WALTER E. HECK, OLAV E. HALLBERG and HENRY L. WILLIAMS, Rochester, Minn. *Archives of Otolaryngology*, 1950, lii, 538.

A comparison of antrochoanal and nasal polyps grossly and microscopically elicited only three dissimilarities: The frequently seen dumb-bell shape of the intact antrochoanal polyp is characteristic; nasal polyps frequently contain mucous glands—antrochoanal polyps almost never contain mucous glands; in nasal polyps tissue eosinophilia occurs more frequently and is of greater degree than in the antrochoanal variety. These observations suggest that while the ordinary nasal polyp is of allergic origin the stimulus for the growth of the antrochoanal polyp is of a different nature. No light has been thrown by this study on the exact cause of the antrochoanal polyp.

R. B. LUMSDEN.

Influence of Nasal Respiration on the Development of the Sinuses. A. WITHALM. *Monatsschrift für Ohrenheilkunde*, 1950, lxxxiv, 201.

The author supports Sitsen's theory, that the rise of pressure on expiration has a marked influence on the pneumatization of the nasal sinuses. Maxillary and frontal sinus measurements were taken in a series of cases including congenital choanal atresia, high arched palate, and laryngeal stenosis. In most of these cases, the sinus measurements were within normal limits. Cleft palate cases, however, on account of the enlarged air column with consequent diminished pressure, show some limitation of sinus pneumatization.

D. BROWN KELLY.

PHARYNX

Disturbances of Taste following Tonsillectomy. T. DEHNEN. *Zeitschrift für Laryngologie, Rhinologie, Otologie*. 1950, xxix, 546.

Disorders of taste may result from disease of the taste end-organs, their nerves, or the central tracts and nuclei. Ageusia, hyperageusia, hypoageusia and parageusia are described. When the facial nerve is involved, proximal to the branching of the chorda tympani, or when the chorda tympani nerve itself or the lingual nerve are affected, the anterior two-thirds of the tongue show taste disturbances. Glosso-pharyngeal nerve disease affects the posterior third of the tongue. Central disorders disturb taste on the side of the tongue opposite to the lesion. Disorders of taste following tonsillectomy are rare: the author records two. The first concerned a woman of 27, who underwent tonsillectomy under local anæsthesia. Operation was followed by intense

General Notes

salivation, pain in the pharynx radiating to the ear, and parageusia of the posterior third of the tongue; the patient compared the taste to the smell of a corpse. The condition cleared up in five months. The second case was a woman of 56, in whom tonsillectomy was followed by a sweet taste in the mouth, especially affecting the posterior third of the tongue. In both instances, damage to the glosso-pharyngeal nerve was assumed to be responsible for the symptoms. Of the nerves running through the parapharyngeal space, the glosso-pharyngeal approaches most closely to the lateral pharyngeal wall in the vicinity of the tonsil.

D. BROWN KELLY.

GENERAL NOTES

THE BRITISH INSTITUTION OF RADIO ENGINEERS

THE following meetings of the Institution will be held in January, 1951 :

LONDON SECTION

Wednesday, January 10th : Commencing at 6.30 p.m. London School of Hygiene and Tropical Medicine, Keppel Street, Gower Street, W.C.1.

A Symposium on Hearing Aids.

Chairman : J. R. Hughes, M.Brit.I.R.E.

“ Deafness : its clinical aspect and the possibilities of its alleviation medically and by deaf aids.”

By E. R. Garnett Passe, F.R.C.S.

“ A Master Hearing Aid.”

By E. Aspinall, B.Sc.

“ The Design of Commercial Hearing Aids ”

By J. P. Ashton, B.Sc.(Eng.).

WEST MIDLANDS SECTION.

Wednesday, January 24th : Commencing at 7 p.m. Wolverhampton Technical College, Wulfruna Street, Wolverhampton.

“ The Mechanics of Hearing ”

By C. Naylor-Strong, M.R.C.S.