EAR.

Stephenson, Sydney (London).—*The Constitutional Treatment of Interstitial Keratitis.* "Polyclinic," December, 1909, p. 127.

The writer looks upon interstitial keratitis as practically incurable he found that some cases which failed to answer to mercurials and iodides became speedily more tractable when, in addition, the extract of thyroid gland was administered. Atoxyl was also found to be beneficial when prescribed along with thyroid extract. It would be desirable to try these remedies in the corresponding disease of the internal ear.

Dan McKenzie.

MacKenzie, E. W.—*Clinical Researches on Labyrinthine Disturbance of Equilibration with Particular Reference to the General Method of Testing and to the Goniometer.* "Arch. f. Ohrenheilk.," Bd. lxxviii, Heft 3 and 4, February, 1909, p. 167.

Patients suffering from labyrinth disease were submitted before and after operation to the usual tests (Romberg's—standing on one foot with open and closed eyes; walking forward and backward with open and closed eyes, etc.), as well as to examination by means of Alexander's modified goniometer, which the author describes and figures.

The results of his investigations particularly in cases of bilateral labyrinth destruction seem to suggest that disturbances of equilibration may at times be referred to the maculæ in the vestibule (of the saccule and utricle) rather than to the end-organs in the ampullæ of the canals.

Dan McKenzie.

Urbantschitsch, Ernst.—*Head Nystagmus.* "Monats. f. Ohrenheilk.," Year 44, No. 1.

A paper relating to certain phenomena which at times may be observed in connection with lesions of the labyrinth or elicited by stimulation locally when this structure is exposed or diseased. It was read at the Eighth International Otological Congress in Budapest, August, 1909.

Three main routes, says the author, exist between the labyrinth and the cerebro-spinal system by means of its nervous connection with Deiter's nucleus: The vestibulo-nuclear, through the posterior longitudinal bundle to the oculo-motor nucleus; the vestibulo-cerebellar, through the restiform body to the cerebellum; and the vestibulo-spinal, by virtue of fibres which communicate with the ventral horns of the spinal cord.

The results of clinical observations in man bearing on this subject are referred to, and also experimental data derived from investigation of animals.

Three cases are then quoted illustrating these reactions and a detailed account given of the local condition, the circumstances under which or when these phenomena occurred or could be evoked, and the character of the reactions themselves.

The response to labyrinthine stimulation, in addition to the now well recognised ocular nystagmus, is not always limited to movements of the head, but is also shown in tremors of other parts of the body, and in diaphoresis; indeed, the more common reaction, when the patient was blindfolded, was an outbreak of perspiration, which commenced first over the head and soon, most frequently, involved the whole body; in some cases the tremors were observed in the lower extremities, whilst the effect noticed in the head took the form of similar tremors or gentle shaking,

which continued for variable periods. No constant response could be obtained in different persons, nor in the same patient did repeated tests elicit a regular reaction. *Alex. R. Tweedie.*

Gradenigo, Prof. (Turin).—*The Treatment of Septic Thrombosis of the Sigmoid Sinus of Otitic Origin.* "Arch. Internat. de Laryngol., d'Otol., et de Rhinol.," January and February, 1909.

This common endo-cranial complication is recognised by the characteristic pyæmic temperature, a rigor followed by quick onset of fever, which at the end of some hours may fall to normal; this may be repeated two or three times in the twenty-four hours.

Death usually takes place more or less rapidly, either by metastatic involvement of the lungs and gangrene, or by the infectious process spreading to the petrous and cavernous sinus.

When an operation is performed within twenty-four hours recovery is usual, but when later, in addition to removing the infected clot anti-streptococcic serum should be injected.

Neither the aspect of the sinus nor the presence of pulsations are much help in deciding the nature of the sinus contents.

This complication is sometimes mistaken for pneumonia—indeed, they are often present at the same time, due to the pneumococcus, especially in children.

The presence of classic ear symptoms seem to distinguish between this condition and typhoid or malaria. *Anthony McCall.*

Dench, E. B. (New York).—*The Treatment of Acute Otitic Meningitis.* "Amer. Journ. Med. Sci.," February, 1910.

The writer has collected from the literature 101 cases of otitic meningitis. Of these 45 were cured and 56 died. Of those cured 34 were cases of serous meningitis, 4 were cases of circumscribed purulent meningitis with serous meningitis, 4 were cases of circumscribed purulent meningitis, and 3 were cases of diffuse purulent meningitis.

Dench himself has operated on 65 cases of otitic meningitis, in 54 of which the condition was one of circumscribed purulent pachymeningitis, and of the latter 48 recovered and 6 died. The remaining 11 were cases of general meningitis, and 3 of them, all of the serous variety, recovered. The following are the author's conclusions as to the surgical treatment of the disease:

(1) The primary focus of infection must always be removed, and at the same time any extra-dural collection of pus thoroughly evacuated.

(2) Any fistulous openings found in the outer wall of the labyrinth should be enlarged and the labyrinth drained by opening the semi-circular canal, vestibule, and cochlea.

(3) When symptoms of moderate intra-cranial pressure are present lumbar puncture should be performed to relieve it.

(4) When symptoms of severe intra-cranial pressure are present or when with moderate intra-cranial pressure lumbar puncture is negative, a decompression operation should be done, either over the temporo-sphenoidal lobe or over the cerebellum, or in both situations.

(5) If the symptoms are extremely urgent the lateral ventricle may be opened at the time of the decompression operation, otherwise it is better to wait for twenty-four hours.

(6) When the infection appears to have reached the subdural space by way of the labyrinth, steps should be taken to drain that space on the

posterior surface of the petrous in the region of the aqueductus vestibuli and aqueductus cochleæ. *Thomas Guthrie.*

Turner, A. Logan.—*Two Cases of Meningitis complicating Middle-ear Suppuration, with Recovery.* "Edinburgh Med. Journ.," February, 1910.

Case 1.—A school-boy, aged thirteen, had discharge from left ear eighteen months, but enjoyed good health until five days before his admission, when he complained of severe headache. Next day he vomited, temperature rose to 103° F., he complained of great pain in the left ear, and towards evening became drowsy. When admitted to hospital he lay on his back with legs extended, did not look ill, and answered questions readily. He complained of frontal and occipital headache.

Right Ear.—No perforation.

Left Ear.—Sour-smelling discharge in the meatus, posterior wall red, small perforation in postero-superior quadrant, mastoid tenderness, but no œdema. Slight spontaneous nystagmus on looking to left, none on looking to right. No nystagmus on looking to sound side after syringing with cold water, but nystagmus on looking to affected side after syringing with hot water.

Pain in muscles of back of neck on palpation or bending head forward, but no head retraction. No Kernig's sign.

The mastoid operation was performed on the day of admission.

The bone was vascular and soft, but no pus found; walls of sigmoid sinus healthy; some mucoid secretion in antrum.

The cerebro-spinal fluid was clear and not under tension.

Next day the boy was drowsy. There was rigidity of the muscles of the neck and well-marked Kernig's sign. He then improved; nystagmus disappeared.

A few days later, however, nystagmus to the affected side reappeared, and the boy grew drowsy again. Kernig's sign still present, leucocytosis increasing, pulse and temperature subnormal. The cerebellum was explored, but no pus found. Thereafter the boy made a rapid convalescence.

The condition was one of serous meningitis. The exploratory operation on the cerebellum drained the meninges and probably prevented the serous becoming a purulent meningitis.

Case 2.—A boy, aged sixteen, had left otorrhœa for a number of years, but otherwise enjoyed good health. A week before admission vomiting and giddiness commenced, also headache and drowsiness, and temperature was raised. On admission he lay on his back with limbs extended; answered questions clearly; complained of slight frontal headache.

In the left ear was a polypus and fœtid discharge; tenderness over left mastoid and along left internal jugular vein; no œdema. A few jerky nystagmic movements were observed on deviating the eyes to the left; no spontaneous nystagmus on deviation to the opposite side. The caloric tests could not be applied owing to the presence of the polypus.

The radical mastoid operation was performed, and pus and cholesteatoma were found in attic and antrum. The roof of the antrum was carious, but the dura mater appeared healthy. On lumbar puncture the cerebro-spinal fluid escaped under pressure and was turbid, but no organisms could be grown from it or seen on direct films.

Two days later signs of meningitis began to become more evident.

A few days later pus was found in the cerebro-spinal fluid obtained by lumbar puncture, and in it the following organisms, viz. *Streptococcus pyogenes*, *Proteus vulgaris*, and a Gram + anaërobic bacillus—the same organisms as had been grown from the pus in the mastoid. Anti-streptococcus serum had already been injected subcutaneously; it was now injected both subcutaneously and into the spinal canal, 5 c.c. being injected one day and 10 c.c. the following day. Soon afterwards some of the symptoms began to improve, and a week later the patient was convalescent.

During the last three years twenty-one cases of meningitis complicating middle-ear suppuration have come under the writer's care; nineteen have died, and two recovered. Unless the patient is obviously moribund, surgical interference has been the routine practice. Unfortunately, as a rule, the patients are admitted too late, and surgical interference is a forlorn hope. *Arthur J. Hutchison.*

Levy, Oskar (Leipzig).—*Three Otogenic Brain Abscesses.* "Arch. f. Ohrenheilk.," Bd. lxxviii, Heft 1 and 2, p. 35.

Case 1.—Girl, aged two and a half, backward in development. Discharge, left ear. Illness began with convulsions; slight rigidity of neck followed; then paresis of left arm and leg, with continued spasms of right arm and leg, and paresis of right side of face.

Cortical mastoid operation; no extension of disease towards intracranium found, but brain explored and temporo-sphenoidal abscess discovered and evacuated. Symptoms improved for a time, but later on became worse. Wound again opened up and some retained pus in the brain let out; dural incision also enlarged and pus discharged from subdural space. Recovery, but with persistence of right-sided facial paresis.

The left-sided paresis is put down to serous meningitis of the right cerebral hemisphere (*i. e.* side of brain opposite to affected ear).

Case 2.—Male, aged twenty. Long-standing suppuration in right ear. After ten days of headache, occasional vertigo and weakness, illness began with rigors. Temperature 38·8° F., pulse 120. Slight spontaneous nystagmus to affected side. Tenderness over jugular vein. Diagnosis pyæmia.

Radical mastoid; large cholesteatoma; external and posterior semicircular canals eroded; dura of middle fossa exposed by the disease.

After the operation symptoms unrelieved. Coma set in. Dura of posterior fossa incised, with a negative result. Then paralysis of left arm and paresis of left leg appeared. Abscess in temporo-sphenoidal lobe found and drained. Death.

The third case is not reported in full detail. It was one of cerebellar abscess, with a tract leading from the antrum through the region of the labyrinth into the posterior fossa. *Dan McKenzie.*

Nicolas, M. (Paris).—*A Case of Pyæmia of Otitic Origin, with Cerebral Abscesses.* "Rev. Hebd. de Laryngol., d'Otol., et de Rhinol.," February 6, 1909.

The patient, a boy, aged seven and a half, the subject of adenoids, had fever, earache, and bulging of the right tympanic membrane. Paracentesis was performed and the temperature became normal, but the patient became drowsy and vomited; at the same time he complained of frontal headache and intense pain in the ear. These symptoms lasted only four days; then followed a severe rigor and fever.

A fluctuating swelling then appeared at the root of the neck, close to the sterno-clavicular joint. The abscess was opened and a radical mastoid operation performed, but death occurred seventeen days later. At the autopsy were found septic thrombosis of the lateral sinus, an abscess in the right temporal lobe, and an abscess of the anterior part of the third right frontal convolution. There was broncho-pneumonia at the bases of both lungs. The abscess in the neck surrounded a thrombosed vein.

The point of chief interest was the rapid evolution of serious intra-cranial complications in the course of a recent otitis without notable signs. The patient, however, had torticollis on the affected side. There were no oscillations of temperature. *Chichele Nourse.*

Starr, M. A. (New York).—*Tumours of the Acoustic Nerve; their Symptoms and Surgical Treatment.* "Amer. Journ. Med. Sci.," April, 1910.

The interesting and valuable paper is based upon six cases of tumour of the eighth nerve, in one of which complete recovery took place after operation by Dr. Harvey Cushing. This nerve is a starting-point of new growths more frequently than any other cranial nerve, and about as often as the cerebellum itself. The localising symptoms are divisible into three groups—namely, those referable to pressure on (1) the cranial nerves; (2) the cerebellar peduncles; (3) the tracts passing through the pons. A large majority of the tumours are fibromata, fibro-sarcomata, or cysts, encapsulated, non-adherent, and from the standpoint of the pathologist, removable surgically. In regard to the method of operation, especial importance is attached to the need for a large exposure of the cerebellum by a bilateral operation removing almost the whole occipital bone. When only one side of the occipital bone is removed, the space obtained is rarely more than two inches in diameter, and through this opening the cerebellum bulges under pressure to such a degree as to prevent access to the deeper parts. In the successful case here recorded, the patient was in no way inconvenienced by the loss of the occipital bone. *Thomas Guthrie.*

Hurley, J. J. (Boston).—*Local Anæsthesia (Neumann) in Ear Surgery.* "Boston Med. and Surg. Journ.," March 24, 1910.

The author knows of only four papers on the subject in the "entire literature," thus showing that he has been very negligent in his search. The paper deals with the method and its contra-indications, technique, etc., and summarises as follows: (1) Neumann's anæsthesia fulfils all the requirements of Heidenhain and stands forth as one of the great advances of modern otology. (2) It has no design on the ether and chloroform market and desires to be on the most friendly terms with both relatives. (3) In mastoid work, when a general narcosis is contra-indicated, it needs no defence. (4) It seeks to limit the radical exenteration to those cases in which there is a strong presumption of mastoid or brain involvement. (5) It promises to do away with the chiselling out of a healthy mastoid to arrive at a chronic ear. (6) It claims the intra-tympanal field as its own. [In countries where bad technique makes general anæsthesia risky, we can understand the enthusiasm expressed over local methods. They are not, however, likely to become popular in England.] *Macleod Yearsley.*