knee-jerks somewhat increased, and slight Kernig. Changes in optic discs more marked. The mind remained exceptionally clear. Lumbar puncture performed on two occasions gave exit to only a few drops of cerebro-spinal fluid, only slightly cloudy. Examination of this yielded some broken-down cells but no organisms.

The question of attempting to reach the brain abscess by an external operation was considered, but in view of its position and the great probability of there being concomitant leptomeningitis it was negatived. Mr. Nicol saw the patient a few hours before her death and concurred in this view. The drainage into the nose was kept free by mopping. The probe showed that the abscess extended more deeply, passing in $6\frac{1}{2}$ in. from the nasal spine the day before death. She became unconscious eighteen hours before death, and died eight days from the time of her admission.

Post-mortem Examination.—Extensive basal meningitis over pons, cerebellum and medulla. Pus in all the ventricles. Opening in roof of posterior ethmoidal cell half an inch in diameter, and bone in neighbourhood dark coloured. Ragged opening in dura. Contiguous part of brain showed surface destruction, and from this a track, which admitted a lead pencil, led backwards just beneath the under surface of the brain till it opened into the third ventricle. A thin pyogenic membrane lined part of this track. The right olfactory bulb and nerve were destroyed, but there was no evident meningitis on the under surface of the frontal lobe.

Specimens, etc.

Drs. J. S. Fraser and **J. R. Milne Dickie** showed a reconstruction model of the middle and inner ear of a fœtal pig (length of pig, 7 cm.).

Dr. Walker Downie showed six photographs of an unusually large external fibro-cellular tumour of the nose, before and after operation, which occurred in a man, aged sixty-three. Operation in September, 1907.

AUSTRIAN OTOLOGICAL SOCIETY.

January 29, 1912.

Prof. v. Urbantschitsch *in the Chair.*

(*Abstract of proceedings from advanced proofs sent by* Dr. Hugo Frey.)

Polyneuritis Cerebralis Ménièriformis (Frankl-Hochwart) after Salvarsan.—O. Beck.—Patient was a man, aged twenty-eight. Infection May, 1911. Pustular exanthem, July, 1911, for which he was treated in the skin clinic—eyes, ears and other organs healthy—with ung. Cin. and KI followed by an intra-venous injection of 0·4 grm. "606." Temperature 39·8°, rigor, diarrhœa, headache. September: injection repeated without any adverse symptoms, discharged much improved: Wassermann (formerly positive) now negative; to continue taking NaI. Towards the end of October, sudden left facial paralysis, giddiness,

https://doi.org/10.1017/S1755146300188559 Published online by Cambridge University Press

staggering, vomiting, headache, severe tinnitus left side, diplopia. Admitted to the hospital, mercurial injections, rest in bed. Wassermann positive. November: Involvement of left auditory nerve, Cv. at 4 m., Whp. at $\frac{1}{2}$ — 1 m., total lack of response in left vestibular apparatus. Paralysis of all three branches of facial with lack of both galvanic and faradic response. Present condition: Left side, total lack of response of vestibular apparatus and nerve-deafness. Facial paralysis as above. Right side, slight rotation reaction, caloric response depreciated, hearing normal. No disturbance of equilibration or spontaneous nystagmus (which latter had been noticed towards the left), slight Rombergism with eyes closed.

A somewhat similar case which occurred in a man, aged thirty-eight, after two injections of salvarsan was also related.

Polyneuritis Cerebralis with loss of Caloric Response but Persistence of Rotation Reaction.—O. Beck.—A man, aged twenty-nine, infection one and a half years ago. Salvarsan 0·3 grm. intra-venously, February, 1911; intra-muscular injection of the same amount, March, 1911. Fourteen days later marked giddiness, vomiting, disturbance of equilibration and loss of hearing on the right side. In November the following note was made: Right side, total deafness; left, Cv. at 6 m., Whp. $\frac{3}{4}$ m. Caloric response—right absent, left typical. Rotation evoked normal nystagmus about the same each way. Very slight spontaneous nystagmus in both directions. Total facial paralysis (? right). Hypalgesia in region served by the right trigeminal. Mercurial treatment had up to the present time produced no alteration in these conditions.

Certain authors had described similar attacks of polyneuritis as being produced by syphilis, but Beck did not wish to discuss this point further than to state that whereas such conditions due to this disease alone were extremely rare, he had already seen it occur five times after the exhibition of salvarsan.

Further Communication towards our Knowledge of Serous Labyrinthitis.—Ruttin.—A boy, aged ten, stated to have been in good health previously, was admitted to the hospital January 4, 1912, complaining of headache and earache on the right side for two days; he had also felt giddy and had vomited once. Left ear, normal in appearance and function. Right ear, posterior segment of membrana tympani appeared to be replaced by adherent scar-tissue; membrane elsewhere injected, swollen, macerated and bulging. Deaf to both Cv. and forks. Weber to the left; Schwabach shortened. Spontaneous nystagmus to the left. Caloric response quite lost. No fistula symptom. Tender over the mastoid apex, antrum and region of sinus, also over the cervical vertebræ, but both active and passive movements here possible. Pupils equal and reacting to light and accommodation. All reflexes apparently increased. Dermography. No Kernig. No ataxia. No obvious alteration of sensation. Temperature 37·4° pulse 104. Ocular fundi normal. Internal organs normal. Lumbar fluid clear but under high pressure.

Diagnosis.—Purulent labyrinthitis with incipient meningitis, or tuberculous meningitis with exudation into right inner meatus. Exploratory operation the next day: Mastoid pneumatic; sinus healthy; scattered granulations in antrum suggesting acute otitis, but in view of the appearance of the membrana tympani, and in order to inspect the labyrinth wall, the complete operation was carried out. Examination of this, however, with tonogen revealed nothing abnormal. Tuberculous meningitis was therefore suspected and the labyrinth not explored.

https://doi.org/10.1017/S1755146300188559 Published online by Cambridge University Press

Two days later the nystagmus disappeared and the patient felt well. By the sixth day Cv. easily a.c. tested with noise apparatus. Weber to the right, Rinne negative; no fistular symptom or spontaneous nystagmus; caloric reaction prompt. Report on lumbar fluid negative. Distinct facial paresis. General condition good.

Ruttin concluded that the case must have been one of serous labyrinthitis following on acute otitis media. It was interesting to compare this case with another quite similar one at its commencement, which he had shown to the Society on another occasion, but which, however, ended quite differently, in that complete deafness and loss of caloric response on the diseased side still persisted.

In the discussion which followed ALEXANDER and FREY submitted that in the present state of our knowledge the diagnosis of serous labyrinthitis depended on the ultimate re-establishment of the cochlear and vestibular functions, and BÁRÁNY added that this uncertainty as to the differential diagnosis between serous and purulent labyrinthitis was due to the fact that as yet it was not known whether the serous condition was merely toxic in origin or caused by an infection reduced in virulence. To make a diagnosis, however, entirely by the result of the case he condemned as wrong in principle and apt to be inaccurate. The whole clinical picture should be utilised towards framing an opinion, and he, for his part, would regard the other case of Ruttin's, in which the hearing was not recovered, as still one due to serous labyrinthitis. ALEXANDER denied that he had said the diagnosis should rest entirely on the final condition of the case, and considered that serous labyrinthitis fell into two groups, the one occurring in the course of acute otitis and being itself acute in character and transitory in effect, and the other being an exudation in connection with a chronic otitis and causing a permanent loss of function in an already injured labyrinth.

RUTTIN, in reply, stated that the duration of the attack, as some had suggested, could not help towards the diagnosis, as both serous and purulent labyrinthitis might last about the same time, viz. three to fourteen days, and still contended that the predominant factor in the differential diagnosis must at present be the ultimate state of the case as regards the re-establishment or not of function.

A Case of Scar Carcinoma in the Periosteum of the Mastoid Process.—Ernst Urbantschitsch.—A paracentesis was performed on a man, aged sixty, in March, 1911, for relief from an attack of acute otitis media; no pus was found, but as the inflammation continued to increase the antrum was opened in April, granulations being disclosed. All went well for three weeks, when severe and increasing headache occurred in spite of all treatment, the patient losing 45 kg. in weight. By August the general condition had recovered and the headache disappeared, but in December it recurred in such a degree as to prevent sleep. On examination a soft swelling the size of a nut was now found at the upper end of the post-aural wound. This was removed in January. The tumour was free from the skin, originated in the periosteum—the adjacent bone being much eroded—and its general appearance suggested sarcoma: but the later microscopical report described it as a squamous-celled carcinoma.

The exhibitor considered that it must have been the result of some inclusion of the skin at the original operation.

Hyper-excitability of the Vestibular Apparatus.—F. Alt.—Under

https://doi.org/10.1017/S1755146300188559 Published online by Cambridge University Press

this title the author drew attention to certain conditions other than those which he would describe as hyper-æsthesia, such as severe vomiting, giddiness and nystagmus, due to injudicious application of the caloric and rotation tests, and which more rightly belonged to the domain of physiology. To illustrate his views he quoted cases of middle-ear catarrh in which inflation, even gently performed, evoked severe symptoms, and also others in which the radical operation had been carried out, and where, during post-operative manipulation, the utmost delicacy was required to prevent labyrinthine disturbance. (The object apparently was to attempt a distinction between hyper-æsthetic states of the labyrinth in otherwise normal ears, and an unusual condition of excitability in connection with pathological circumstances.)

In the lengthy discussion which fellowed, FREY, RUTTIN, BÁRÁNY and NEUMANN took part. As Alt himself had pointed out, exaggerated symptoms in connection with neurotic people were known to all, and as regards the excessive reactions in pathological cases, these might be explained by assuming either some sudden alteration in the state of the labyrinth fluid, as by inflation in chronic tubo-tympanic obstruction, or by the loss of its normal protection in post-operative cases. The "fistula symptom" would serve to elucidate some of these conditions, although, however, it must be admitted that there remained many phenomena in connection with the vestibular system for which at present no explanation could be offered The possible co-existence of intra-cranial tumours in these cases should be borne in mind. It was obvious that a very cautious attitude was adopted towards this differentiation and terminology as suggested by the author. *Alex. R. Tweedie.*

Abstracts.

NOSE.

Gerber (Prof.).—The Vestibule of the Nose, and the Treatment of Lupus. "Münch. med. Wochens.," November 21, 1911, p. 2501.

In this short contribution to the International Rhino-Laryngological Congress in Berlin, September, 1911, Prof. Gerber emphasises the importance of a careful examination of the orifice of the nose, particularly of the upper angle at the junction of the skin and mucous membrane, in cases of facial lupus. It is there, the author believes, that lupus involving the nose and face has its origin in a very large proportion of cases. Dr. Gerber uses a small mirror devised by himself for examining the upper part of the vestibule of the nose, and he has repeatedly found lupus nodules in that situation even when no other evidences of the disease were present or when the cutaneous lesions were regarded as healed. The active co-operation of the rhinologist is therefore of great importance if there is to be an effective campaign against lupus and tuberculosis. *J. S. Fraser.*

Barraud, A.—Two Cases of Rhinolith. "Revue Med. de la Suisse Romande," August, 1911.

Foreign bodies in the nose are common, but rhinoliths, according to Dr. Barraud, are rare, only 160 having been reported in the whole of medical literature. The first of the two cases here recorded was a

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