a patient who was to have had the larynx removed was not well enough to be operated on. But in its stead an adenoma of the thyroid was removed with a perfection of technique that could scarcely be surpassed. The method of implantation of rib cartilage to repair a deformity of the nose was also demonstrated.

At the St Louis Hospital Dr Lemaitre and his assistants had arranged a very interesting series of demonstrations. A series of patients was shown in whom application of Bonain's solution or injection of alcohol in the neighbourhood of the spheno-palatine ganglion had cured obstinate nasal headaches and spasmodic coryza. Dr Lemaitre showed a patient from whom he had removed a large adamantinoma by resection of the lower jaw, and lantern slides of the technique of the operation were demonstrated on a very ingenious apparatus of his own devising.

Dr Lemaitre also demonstrated on the cadaver the steps of his operation for brain abscess by the obliteration of the lower arachnoid spaces and showed how by the use of his graduated drainage tubes the desired result could be effected. A series of patients suffering from Graves' disease was next shown to illustrate the improvement in the condition that had followed ligation of the superior thyroid artery. Finally, a number of patients were seen who were suffering from lung abscess or bronchiectasis and the bronchoscopic treatment of these was demonstrated. The exact Jackson technique was followed in all its details, and after aspiration and drying of the cavities Gomenol oil was injected. An interesting series of skiagrams was shown.

SOCIETIES' PROCEEDINGS

AUSTRIAN OTOLOGICAL SOCIETY.

Proceedings of Meeting of June 23, 1930.

(*From the Monatsschrift für Ohrenheilkunde*, September 1930.)

Abstract of Proceedings by A. R. TWEEDIE, F.R.C.S.

Abscess of the Temporo-Sphenoidal Lobe with Brain Prolapse—ERNST URBANTSCHITSCH. — A woman, aged 31, was admitted to hospital 9th November 1929.

History—With exception of measles, no previous illness; three weeks ago pain in the left ear, since when otorrhœa; severe headache over the left ear now abating. Since the 5th November marked giddiness, vomiting and fever with increasing deafness.

Examination—Ear, right, chronic adhesive otitis media with dry perforation; left ear, chronic purulent otitis media with destruction of the membrane and granulations.

Weber to the left; spontaneous rotatory-horizontal nystagmus to right and left; caloric reaction present; positive fistula symptom. Conversation: right, 4.5 metres; left, a.c.

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21st November—Radical operation; antrum occupied with cholesteatoma; fistula in horizontal canal; dura of the middle fossa found exposed; incision of temporal lobe of the brain negative.

Convalescence was most eventful and anxious, and the condition was such that on the 24th January 1930, owing to severe headache, crying, aphasia and error in naming objects, and after consultation with the neurologist, a further operation was undertaken for exposure and examination of the brain; when pus was found at a depth of 3 cm. which on bacteriological examination revealed the *Streptococcus pyogenes* as had been previously found at the operation on the mastoid.

As the course of the convalescence was still eventful a further operation was undertaken on the 22nd February, when examination of the brain abscess resulted in the relief of retained pus. From thence, the patient gradually recovered and was discharged with the wound healed, on the 5th June 1930.

The local condition, however, was associated with prolapse of the brain, whilst spontaneous nystagmus to the right and left still persisted, with spontaneous by-pointing with the right arm to the left, and, although the aphasia was still present, the patient could name correctly common objects.

The exhibitor drew attention to the extreme difficulty in the treatment of the case, and considered that although there was a prolapse of the brain, the further treatment of this should at present be postponed.

Case of Healed Meningitis following Suppurative Otitis Media, Cholesteatoma, Para-Labyrinthitis with Facial Paresis—R. LEIDLER.—A girl, aged 17, who had suffered since 2 years old with bilateral aural disease, was admitted on the 24th February 1930, with a history of three weeks' fever and headache.

Examination—Right ear, tympanum occupied with granulations; profuse otorrhœa. Left ear, old chronic otitis media; healed fundus occupied by cicatrix; extreme reduction of hearing right and left, of the character of a mixed middle and inner ear type; labyrinth normally responsive both sides; no fistula symptom; no spontaneous nystagmus; no giddiness.

Paresis of all three branches of the right facial nerve.

Operation, 1st March—A purulent cholesteatoma was found occupying the middle ear and mastoid process; horizontal canal eroded. Lumbar puncture: markedly turbid fluid under slight pressure.

Recovery ran an uneventful course and by the 10th of May the wound was almost dry and the facial paresis almost recovered.

Although the case was described as healed meningitis, the exhibitor

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considered this was of a "serous" character, since the bacteriological finding only indicated contamination.

In the discussion which followed, the question as to the advisability of amending nomenclature in this direction was raised.

Sinus Thrombosis. Increase of Polynuclear Leucocytes in Spinal Fluid: Operation: Recovery—E. RUTTIN.—A man, aged 23, was admitted to the hospital on the 6th of May 1930, with the history that for two years he had had a profuse otorrhœa on the right side, and that latterly he had been under treatment for a furuncle in the meatus by an aural surgeon.

On admission, the meatus was so swollen that it was impossible to see the membrane and it was very difficult to determine if his symptoms were all referable to an external otitis. Temperature 40.2.

Operation was undertaken on the 9th of May, when pulsating pus was found in the neighbourhood of the sinus.

This latter was still further exposed by operation and the complete radical operation performed.

The jugular vein was then exposed in the neck (as the examination of the sinus had suggested thrombosis). It appeared to fill normally but it and the common facial vein were ligatured. The sinus was again examined above and found to contain a thrombus which was removed, and further exposure of the sinus towards the torcula was continued until a normal flow of blood was obtained.

The further course of the case was fortunately uneventful.

The exhibitor had shown the case as his decision not to regard the lesion as purely an external otitis, and his determination to operate was based on a slight increase of the polynuclear leucocytes found in the C.S.F. at a lumbar puncture undertaken prior to the operation.

Reflex of the Auricle with the Tuning Fork—E. RUTTIN.—A man, aged 79, exhibited the following phenomenon. If a tuning fork of the middle-tone series were held near the right ear, the auricle was seen to move, being pulled out slightly from the head, whilst at the same time there was an obvious contraction in the upper half of the helix.

The exhibitor stressed the fact that although similar movements were not uncommon, in this case definite action of both the anterior auricular muscle and the musculus helicis major was easily demonstrable.

Acute Otitis Media, Right. Scarlet Fever: Operation: Sinus Thrombosis: Ligature of the Jugular: Facial Paresis: Nasal Diphtheria. Acute Otitis Media, Left: Operation and Recovery—M. BARWICH.—A boy of 7 years was admitted to the

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hospital on account of an otorrhœa for two weeks, and fever. A day later scarlet fever developed and he was transferred to another hospital accordingly.

19*th March* 1930—Profuse otorrhœa, right; membrane red and swollen; no visible perforation; infiltration of the posterior meatal wall: œdema of posterior meatal wall and also behind the auricle; left ear normal.

On account of the presence of scarlet fever it was decided to postpone operation, but as his temperature rose to 39° C. the same evening, the following day the mastoid process was opened, when it was found largely filled with pus, especially around the sinus which was pathologically exposed.

Puncture of the sinus revealed fluid blood from which, and also from the pus, hæmolytic streptococci were culturable.

As the general condition did not improve, on the 28th March the wound was re-examined, and on puncture of the sinus no bleeding now occurred. Ligature of the jugular vein and common facial vein were therefore carried out and thereafter the sinus opened, disclosing a red thrombus, after the removal of which normal bleeding followed.

On re-examination the blood was now sterile.

31*st March* 1930—Paresis of the buccal branch of the right facial nerve.

5*th April* 1930—Nasal diphtheria developed and was treated immediately with antitoxin.

8*th April* 1930—Acute otitis media in the left ear which necessitated operation on the 15th April, when the mastoid was found largely occupied with pus from which a hæmolytic streptococcus was cultivated.

Thenceforward, the convalescence was uninterrupted and at present the child has completely recovered.

Primary Affection of the Bulb, with (?) Metastatic Abscess in the Lung—V. F. FREMEL.—A boy, aged 5 years, was admitted to hospital on the 2nd of April with diagnosis of otitic meningitis.

The right ear was the seat of a cholesteatomatous suppuration, which latter had become more marked during the last year, whilst during the last days it was accompanied by fever, headache and vomiting.

On admission, the child showed the typical picture of neck stiffness, opisthotonus, positive Kernig and somnolence. On lumbar puncture, the fluid was cloudy with a cellular content, but after several days was still sterile.

A radical operation was undertaken at once, when a large cholesteatoma was removed, thus exposing the dura of the middle and posterior fossæ and the sinus.

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Twenty-four hours later the cellular content of the C.S.F. was considerably reduced, and five days after the operation no trace of the meningitis remained. The temperature, however, remained raised up to 40 degrees and more, and further examination of the chest (X-rays) revealed infection of the right upper lobe of the lungs, whilst in addition the child developed a fœtid purulent expectoration.

Later still, a repeated X-ray examination showed a cavity the size of an apple in the right upper lobe.

As the condition, however, was unsatisfactory, the sinus down to the bulb was again examined, when its wall was found suspiciously thick, but further examination showed a normal blood content.

Thereafter, recovery was uneventful.

Chronic Otitis Media with Thrombosis of the Sinus and Bulb leading to Abscess of Neck—J. POPPER.—A girl, aged 21, had suffered with a chronic suppurative otitis media on the left side since age of 3 years. Two months ago, an acute exacerbation had commenced, and one day before admission to the hospital (on the 12th April) there was a sudden rigor, temperature 39° C. and severe headache with vomiting.

Examination—Right ear, almost reactionless; central perforation. Left ear, profuse fœtid secretion—membrane injected—anterior perforation, pulsating secretion.

As the condition did not improve on the 19th April, the left mastoid was exposed together with the sinus, which latter, however, on puncture revealed normal blood. Three days later, as another rigor occurred, the sinus was again examined when it was found completely thrombosed. It was therefore further exposed towards the torcula, slit up and a large thrombus 5 cm. long removed, when normal bleeding occurred from above. After dressing the wound, the jugular and common facial veins were ligatured.

Thereafter the patient had a further good convalescence for some three weeks when, with a rise of temperature, an abscess was found below and behind the mastoid process, and opened. Thereafter the patient made a normal recovery.

Case of Primary Thrombosis of the Bulb during Acute Otitis Media—J. POPPER.—A girl of 8 years, following scarlet fever and nasal diphtheria, complained of pain in the ears, but on examination the appearance of the tympanic membranes was completely normal on each side, as was also the hearing.

For the next two weeks the patient was completely free from fever or discomfort, but seven days prior to admission (28th April 1930) she had suffered with severe earache and the temperature was 38° C. A paracentesis was therefore performed. Since then the ear had

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discharged, but the temperature had not fallen and the condition was associated with repeated vomiting, whilst on the day of admission a rigor lasting about half an hour had occurred.

On re-examination the left ear was normal, but the right tympanic membrane was injected, obscuring landmarks, and the fundus occupied with pulsating secretion.

29th April 1930—As the condition was not improving, an operation on the right mastoid was undertaken when the antrum was found filled with pus under pressure. The sinus was also exposed and the wall discovered to be thickened and covered with granulations.

Puncture of the sinus showed normal bleeding.

The condition remained satisfactory till the 2nd of June, when the temperature again rose, and on re-examination of the wound the bulb was found occupied with pulsating pus.

In connection with this, there was a sudden profuse bleeding from the bulb controlled by packing.

10th June—After an apparently satisfactory convalescence, the temperature again suddenly rose. With ligature of the jugular vein the child recovered uneventfully.

ABSTRACTS

EAR.

The Variations in the Sinuses of the Posterior Cranial Fossa, especially the Occipital Sinus. ANTON PFEIFFER (Würzburg). (*Zeitschrift für Hals- Nasen- und Ohrenheilkunde*, Band xxv., Part 5, p. 503.)

Fifty preparations were examined, and in only twenty-one were there well-developed occipital sinuses, bilateral in only one of them and single in the other twenty. In the bilateral case both were extremely small. In eleven of the unpaired the sinus was in the middle line of the falx, in six it was on the right and in three on the left of it. In general it may be said that in 50 per cent. of cases the occipital sinus was of no clinical importance, but in the remainder it might act as a life-saving collateral mode of venous circulation or, on the other hand, as a channel for the passage of infectious material, as in a unique case of Professor Marx, in which thrombosis of this little sinus led to a fatal meningitis.

With regard to the arrangement of the confluent sinuses at the torcular, the following types were found:—(1) The classical torcular, 20 per cent.; (2) the "island" type in which the longitudinal and

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