## EAR.

**Bloch, E.**—*The Diagnosis of Perforation of the Drum Membrane.* "Arch. of Otol.," Vol. XII., 1897.

A SURVEY of the various methods of diagnosing perforations of the membrana tympani is given. Special reference is made to the value of the use of Siegle's speculum for this purpose. If the membrane be imperforate, and the air in the meatus be rarefied by Siegle's speculum, the whole membrane (provided there are no adhesions) moves outwards. If, however, the membrane is perforated, no change in its position takes place, as the pressure upon each side of the drumhead remains the same, the rarefaction of the air in the canal causing a corresponding rarefaction in the tympanic cavity. *W. Milligan.*

**Escat.**—*Spontaneous Escape of Cerebro-Spinal Fluid by the External Auditory Meatus. Probable Congenital Fistula.* "Arch. Inter. de L., O., R.," Nov. and Dec., 1897.

A GIRL of ten, with no history of ear disease, traumatism, or foreign body. Eighteen months ago discharges of fluid occurred ten or twelve times a day for two months. After six months' cessation, reappearance of the phenomenon for one month. During the last eight days, return of the symptoms. At the time of examination the parent related that the discharge was preceded on each occasion by a subjective "whistling," which lasted a few seconds and ceased when the flow commenced. On each occasion about a *demiverre* of fluid escaped. The writer estimated that fully half a litre of fluid escaped each day. The flow was particularly free after meals. There was oliguria, but no polydypsia. One hundred and fifty grammes collected at one "discharge" was examined by Prof. Gérard.

*Report.*—Colourless fluid, slightly alkaline; clouding slightly with heat and acetic acid.

Nacl. ..... ..... 6 gr. 30 per litre.
Earthy phosphates ..... 0 ,, 40 ,,
Traces of cholesterine and albumine.

Undoubtedly cerebro-spinal fluid.

The child seemed in all respects healthy. Hearing in the affected right ear was good, and the membrane and meatus appeared to be normal. The catheter gave no perforation sound or evidence of fluid in the tympanum.

Careful examination with Weissmann's mirror revealed a small V-shaped mark, of a lighter colour than its surroundings, on the roof of the inner third of the meatus. The probe could not penetrate the fistula which presumably opened at this spot. Unfortunately a discharge never occurred in the author's presence, nor could he extract any fluid by the suction action of Siegel's speculum. In order to close the supposed minute fistula in the roof of the meatus, the author employed cauterization of that region, and with the desired effect, for the discharge had not reappeared up to the date of writing. He supposes that there must be at this point a dehiscence not merely of the bone, but of the membranes, and the absence of previous ulceration or traumatism suggests a congenital origin. *Ernest Waggett.*

**Gellé.**—*Acoustic Exercises in the Deaf-mutism of Children of Tender Years.* "Presse Méd.," Oct. 27, 1897.

A RECOMMENDATION of the microphonograph of Duffand, and the commencement of education at a very early age. *Ernest Waggett.*

**Goldstein, M. A.**—*Bilateral Syphilitic Ulceration of the Auricle.* "The Laryngoscope," Jan., 1898.

PRIMARY syphilis of the auricle is a rarity; secondary syphilitic affections of the auricle are, however, frequently met with, especially as an extension to this locality from diseased areas upon the face and neck. Cases of tertiary syphilis of the auricle have been recorded by several observers, especially when due to extension of ulceration from adjoining parts; but the existence of symmetrical tertiary lesions upon the auricles, without any other syphilitic lesion or eruption, has not been previously recorded. In this case the patient was a male, aged twenty-five, who, about seven weeks before applying for treatment, had noticed several small nodular masses making their appearance upon the right auricle. The nodules gradually increased in size, and covered a considerable portion of the concha and lobule. Two weeks later similar nodules appeared upon the left auricle. The infiltration was succeeded by softening and ulceration. After removal of all scabs, three deep, well-defined, kidney-shaped ulcers, with red bleeding surfaces, were found upon the right auricle, and two similar ulcers upon the left.

Six years previously the patient had contracted syphilis. Rapid reduction of the ulcerations followed the administration of fifteen-drop doses of a saturated aqueous solution of iodide of potassium.

A short bibliography relating to cases of syphilitic lesions of the auricle accompanies this paper. *W. Milligan.*

**Gradenigo.**—*On a kind of Physiological Diplacusis in Rinne's Test.* "Ann. des Mal. de l'Or.," Dec., 1897.

IF deep-toned forks (32, 64, 128 vibrations), which are so made that when vibrating at full intensity they emit no harmonic to be heard by aërial conduction, are applied to the cranial bones, the first harmonic (*i.e.* the note an octave higher) alone is heard, and not the fundamental note. This is constant for a sixty-four-vibration fork, and probably for all notes of the lower three octaves; but it does not occur with forks of a higher pitch.

If a sixty-four-vibration fork is held to the mastoid, the note corresponding to one hundred and twenty-eight vibrations is then alone heard. If a fork of one hundred and twenty-eight vibrations is now brought near the meatus, the two forks are heard in unison. If the higher pitched fork is at intervals approached to and moved away from the meatus, the fundamental tone of the big fork, which was formerly masked by its harmonic, will be perceived by bone conduction.

It is probable that transmission by the osteo-tympanic route favours the higher note at the expense of the lower, and possibly the phenomenon last mentioned may be explained as one of fatigue.

This much is certain, that carefully made and weighted forks do give out harmonics, though they may not be perceived by aërial conduction.

*Ernest Waggett.*

**Gruber, F.**—*Paracentesis of the Membrana Tympani. Contribution to the Treatment of Otitis Media Exudativa.* "Wien. Klin. Rundsch.," 1897. No. 42.

THE author performs paracentesis in the following manner:—Incision is commenced at the posterior superior quadrant of the membrane in the shape of a bow, about one to one and a quarter millimètre distant from the edge of the meatus externus, through the posterior inferior quadrant as far as the anterior quadrant. A movable flap of membrane is thus made, past which the exudation can easily go. *R. Sachs.*

**Heiman.**—*Treatment of Certain Mortal Complications of Purulent Otitis and Otitic Pyæmia.* "Ann. des Mal. de l'Oreille," Nov., 1897.

THE diagnostic difficulties are so great that the author considers the ordinary mastoid operation insufficient where aural suppuration is complicated with fever and pain localized mainly in the occipital region, and when these symptoms have resisted treatment with drugs and revulsives. When these conditions exist he has made it a practice for some years past to open the cranial cavity behind the mastoid wound. When in addition there is evidence of general infection (rigors, weakness, articular pains, etc.), he practises diagnostic puncture of the lateral sinus. In no case has he met with accident attributable to this proceeding. Experience has brought him to the following conclusions :—

1. Our knowledge as to diagnosis and treatment of mortal complications is imperfect.

2. Opening the cranial cavity is indicated where fever and general symptoms are present in cases of purulent otitis without retention.

3. Even when nothing is found, this proceeding diminishes intracranial pressure as well as other conditions favouring septic absorption.

4. When thrombosis is suspected the sinus should be punctured after opening the cranial cavity. In most cases the question as to opening the sinus freely can in this way be decided.

5. Exploratory puncture, and even incision, if carried out with aseptic precautions, cannot cause general infection. If the latter already exists, matters are made no worse.

6. Clinically, two forms of pyæmia are to be recognized; the form with and the form without thrombosis of the sinus.

7. The thrombotic form usually arises out of the non-thrombotic. Both forms arise if the centres of infection in the ear or cranial cavity are not removed sufficiently early, or if the opportunities of infection are not suppressed.

8. Pyæmia without thrombosis nearly always has a favourable issue when rational treatment is employed, and even when not treated.

9. Pyæmia with thrombosis nearly always has a fatal issue. A certain proportion are saved by timely operation.

10. It is often very difficult to decide on the moment for operation, especially when signs of general infection are present. When one can afford to do so it is best to wait and make sure of a diagnosis. *Ernest Waggett.*

**Jauhelevitch.**—*A Case of Labyrinthine Vertigo, simulating Ménière's Disease, Cured by Pilocarpin Injections without Loss of Hearing.* "Rev. Hebd. de Laryng., Otol., et Rhinol.," Dec. 25, 1897.

THE case of a healthy woman of sixty-five, who, while walking in the street, was suddenly seized with intense vertigo, with tendency to fall and loss of consciousness. Vomiting soon followed and severe tinnitus. For two months, while in the hands of her own doctor, these symptoms continued unabated in spite of bromide, quinine, and iodides, vomiting occurring three or four times a day. On examination by the author at the end of that period, the affected left ear was found to be normal in appearance and function; a certain degree of loss by bone conduction was present and equal on the two sides, and did not exceed that accounted for by advancing years. On inquiry the author learnt that for two or three days after the attack there was some weakness of the right arm and leg, nasal intonation (? paresis of palate), and paresis of the left side of the face. At no time had deafness been complained of. In view of the lack of success attending the treatment so far employed, hypodermic injections of pilocarpin were ordered. After three injections (Mx of two per cent. solution) the vomiting ceased. Vertigo was much

reduced in intensity at the same time. After ten injections the tinnitus was very much diminished, but persisted in some degree at the time of writing. Hearing unchanged. The exact diagnosis must for the present remain undetermined.

*Ernest Waggett.*

**Kalmus.**—*Otitic Cerebral Abscess in the Right Lobus Temporalis.* "Prague Med. Woch.," No. 51, 1897.

OTORRHŒA for thirty-three years. Intense headache only for three weeks. Light stupor. Paresis of the left nervus facialis and the left arm. No operation allowed. Death. *R. Sachs.*

**Körner, O.**—*Notes on a Case of Middle Ear and Mastoid Suppuration in a Diabetic Patient, with Remarks on Percussion of the Mastoid Process.* "Arch. of Otol.," 1897, p. 412.

THE patient, a man aged fifty-four, consulted the author on account of a suppurating right ear. The pulse was rapid, but the temperature was normal. The tissues over the lower half of the mastoid process were œdematous and tender. The perforation, which was small, and partially blocked by a pedunculated granuloma, was enlarged, with the result that within three days the pain and swelling had disappeared. An analysis of the urine showed that it contained five per cent of sugar. A bacteriological examination of the discharge revealed the presence of staphylococcus albus, in pure culture. A few days afterwards, when the patient was again examined, *the percussion note over both mastoid processes was exactly similar.* The patient gradually sank, and died of coma. Shortly before his death dulness on percussion over the right mastoid process was noted, but normal bony resonance over the left. The author regards the case as one of disintegration within the mastoid process, and considers percussion a valuable aid in diagnosis. When the percussion note of a bone changes from the normal to dulness during observation and repeated comparison with the percussion of the healthy one, without a change in the covering of the bone, in all probability some change in the interior of the bone has taken place. *W. Milligan.*

**Lake, R.**—*Indications for Operations on the Mastoid.* "Med. Press and Circ.," Jan 9. 1898.

THE indications are grouped as follows:—

(*a*) 1. Acute otitis media suppurativa, with acute disease of antrum. 2. Influenzal mastoiditis. 3. Secondary infection from meatal abscess. 4. Acute tuberculosis of middle ear. (*b*) 5. Chronic otitis media suppurativa. 6. Acute exacerbation in chronic disease. 7. Periodic or constantly recurring discharge. 8. Facial palsy (in chronic cases, rarely in acute). 9. Cholesteatomata of attic and antrum. 10. Lateral vertigo on syringing. 11. Persistent mastoid pain. 12. Contraction of meatus. 13. Bezold's mastoiditis. 14. Mastoid fistula. 15. Necrosis. (*c*) 16. As a preliminary to other operations.

And the various symptoms peculiar to each variety are shortly dealt with.

**Luzzati.**—*On the Perception of the Watch by Bone Conduction in the Diagnosis of Aural Affections.* "Ann. des Mal. de l'Oreille," Oct., 1897.

THE foundation of the method to be described lies in the fact that the watch is heard with much greater intensity when applied to the root of the zygoma than when the point of application is posterior to the meatus. The point of maximum intensity behind the ear is the inferior extremity of the mastoid process, close to the digastric groove. Perception of sounds transmitted from this point is not only more feeble, but, in particular, is defective for the lower metallic notes of the watch. A comparative measurement of the intensity of perception from the two

points mentioned may be made by mounting the watch on a handle, which is shortened and lengthened at will by a "telescopic" arrangement.

Under normal circumstances, it is found that the perceptions are equalized when the handle applied to the root of the zygoma is about twice the length of that applied to the mastoid; and the conductibility of sounds from the two points may, therefore, be expressed as a ratio of two to one.

This ratio is explained by the consideration that sounds conducted from the mastoid region affect the perceptive apparatus by bone conduction solely, whereas those approaching from the front are inevitably conducted to and through the membrane and ossicles. This consideration is proved by the fact that occlusion of the meatus by a plug of wool, placed close on the normal membrane, disturbs and even inverts the positive ratio, equality of perception being brought about only when the measuring handle is shorter on the zygoma than on the mastoid.

Inversion of this ratio—*i.e.*, a "negative" result—was found in forty-eight out of fifty cases of deafness from cerumen, the "positive" result returning on removal of the wax. In the two exceptions middle-ear disease was subsequently detected.

A number of cases are reported, illustrating the utility of the method and confirming the explanation of the phenomena mentioned above. The author finds in it a very easy and rapid means of localizing the seat of the lesion, and one which calls for no special intelligence on the part of the patient. Its value is particularly evident in cases of slight deafness; and, unlike other methods, it gives information with regard to all grades of departure from the normal, and not merely to a reversal of the normal reaction. *Ernest Waggett.*

**Ouston, T. G.**—*A Case of Antro-Tympanic Disease and Bezold's Mastoid Abscess, complicated with Extradural Abscess; Paralysis on the same side as the Lesion supervening after Operation; Recovery.* "Brit. Med. Journ.," Jan. 22, 1898.

THE patient, a girl aged fifteen years, had suffered from left-sided suppurative middle-ear disease for twelve years, and from a gradually increasing swelling in the upper part of the neck for two months. There was no history of vomiting, dizziness, or paralysis. The temperature was 103° Fahr., and the pulse 110. A fluctuating and œdematous swelling extended from the vertex to the level of the thyroid cartilages. A semilunar incision was made behind the attachment of the pinna, and much offensive pus liberated. The abscess cavity extended deeply into the neck under the sterno-mastoid muscle. The mastoid cells were now opened and drained, and in opening the antrum downwards the non-thrombosed lateral sinus was accidentally opened. A small and loose sequestrum was removed from above and behind the antral opening, and a larger opening was found into which a probe could be passed for a distance of one and a quarter inches. By means of a curved probe introduced through this opening a cavity could be made out between the dura and the bone. For a time the patient did well, but some days afterwards complete paralysis of the left external rectus muscle was found, the pupils being semidilated, equal, and sluggish in reacting to light. Intense neuro-retinitis was found, especially upon the left side. Slight left facial paresis was also present. No paresis of the left leg or tache cérbérale could be made out, and the patellar reflexes were obtainable with difficulty. Gradually the patient recovered. The author remarks that the extradural abscess was probably continuous with one in the cerebellum, and that it had burrowed downwards in the sheath of the sterno-mastoid muscle. The explanation of the paralyses upon the same side of the body as the lesion is explained as an involvement of the motor fibres in the inflammatory process after their decussation. *W. Milligan.*

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