

and a spasmodic form. The etiology and symptoms of the affection are described, and the differential points of diagnosis indicated. Stress is laid on the importance in every case of dysphagia of making a thorough inspection of the upper air-passages, and of making a complete examination of the chest before passing an œsophageal bougie. The possible risks associated with the latter method of examination are referred to. Auscultation of the œsophagus is described. As regards treatment, the writer mentions that the immediate effect of passing a bougie was generally satisfactory, but that if the further histories of these cases were obtained it was frequently discovered that relapses were not uncommon. It was therefore important to follow up the immediate relief by strongly suggestive treatment, by attention to anæmia, by the removal of any possible source of reflex irritation, and, in short, by the whole armamentarium against hysteria. In conclusion, he points out that, after all, the most common affection of the œsophagus was carcinoma; that when a case of dysphagia presented itself, malignant disease should be the first suggestion which presented itself; and that the possibility of aneurism and other forms of ulceration (traumatic, syphilitic, and tubercular), should be excluded before the diagnosis of its being a functional disorder was decided upon. In a case of dysphagia the old advice was very applicable, viz., "to hope for the best and prepare for the worst."

StClair Thomson.

E A R.

Brown, Walter H.—*Hæmorrhage from the Ear.* "Lancet," June 4, 1898.

Case in which the common carotid was tied for profuse hæmorrhage from the ear. There is no description of the condition of the ear.

StClair Thomson.

Brown, William J.—*Extraordinary Case of Horse-bite: the External Ear completely bitten off and successfully replaced.* "Lancet," June 4, 1898.

The case is described by the title. The bitten-off ear was picked up in a stable-yard. No appliances were at hand; so it was simply cleansed with warm water and sewn on with ordinary sewing-needles and thread. There was hardly any disfigurement.

StClair Thomson.

Calhoun.—*Adenoid Vegetations, with Especial Reference to their Influence upon the Ear.* "The Laryngoscope," March, 1899.

Children with adenoids are more liable to croup, laryngitis, bronchitis, and pneumonia than others. Children in Southern climates are much less subject to adenoid vegetations than in Northerly climates. The author does not remember having seen a negro child suffering from adenoid hypertrophy, though hypertrophied tonsils are common.

He briefly discusses the influence of adenoids in producing chronic catarrhal otitis media and suppurative otitis media. The former is due to altered air pressure and deficient action of muscles controlling the tubes, and the latter is due to hyper-secretion (from rarefaction) becoming purulent. A postponement of operation is recommended where there are no bad symptoms.

R. M. Fenn.

Cozzolino, Prof. (Naples).—*On some Operations for Primary Thrombophlebitis of the Jugular and Transverse Sinus, and for Extradural Otitic Cerebral and Cerebellar Abscess.* "Bolletino delle Malattie dell' Orecchio, della Gola e del Naso," Florence, October, 1898.

(Conclusion.)

In this case, having found a complete thrombus of the entire lumen of the exposed sinus, while the extremities of the thrombus appeared about to become organized, ligature of the jugular was not performed. Had I been able to arrange for a hospital bed, I should not have hesitated an instant to also ligature the jugular. As a matter of fact the percentage of recoveries in cases of thrombus treated only by curette is about a third less (50 to 53 per cent.) than those treated by curette and ligature of the jugular (62, 68 and 75 per cent.), according to the statistics of Körner, Forselles, and Ducellier.

The possibility of excluding septic pyæmia by aseptic methods has enabled intracranial surgery to extend itself to the other sinuses, as the superior longitudinal (three successes in three operations, MacEwen), which is at times attacked by infection from the lateral sinus diffused through the torcular, as well as on account of its special anatomical predisposition, demonstrated in 1894 by Dumont. It is also successful in thrombosis of the ophthalamo-facial from anthrax of the upper lip when it does not extend beyond the orbital veins (Lancial, 1896), this is not, however, the case with the cavernous sinus, in which attempts up to the present have been ineffectual, as in the cases of ligature of the jugular vein by Horsley (1887), curetting the orbit by Lancial (1890), and MacEwen (1893).

Operative interference in the beginning of suspicious symptoms is chiefly necessary in those individuals whose ancestors or descendants have died of similar otitic endocranial affections; indeed, according to Lermoyez the congenital dehiscences of the walls of the tympanum are hereditary and favour the diffusion of infection.

The most remarkable percentage of cures is certainly that obtained by MacEwen: in twenty-seven operations for pure thrombosis of the lateral sinus he has had twenty cures; in the fatal cases symptoms of septicæmia and pulmonary complications were present before the operation.* Equally happy is that of Lane, eight successes in ten operations.† Professor MacEwen has had also eighteen recoveries in nineteen cases of encephalic abscess, and four recoveries in four cases of cerebellar abscess.

Lebert first demonstrated that phlebitis of the sinuses is the intermediary between auricular infections and consecutive meningitis and cerebral and cerebellar abscesses, as osteo-phlebitis of the walls of the middle ear is the intermediary between them and epimeningeal or extradural abscesses; and therefore, also according to Lebert, one should never put off the rational surgical treatment, which should be employed even only for exploration if one wishes to make it appreciated by the profane, who judge always of the results *quoad vitam*. It is the great merit of the illustrious Murri that he first in Italy‡ encouraged

* "Pyogenic Infective Diseases of the Brain and Spinal Cord," Glasgow, 1893.

† *British Medical Journal*, 1893.

‡ "La Crainotoma esplorativa e la Diagnosi dell' Ascencocerebrale Cronico," *Poli-dinico*, Roma, 1895.

operators not to postpone the only procedure that can save life, because it resolves the problem *ubi pus ibi evacua*.

CASE IV. *True Extra-dural Abscess of the Temporal Fossa from Necrotic Extension from the External Auditory Meatus to the Entire Mastoid Apophysis and to the Tegmen, with Participation of the Rim of the Canal of Fallopius, resulting in Paralysis of the Seventh Nerve, the Result of Old Osteitis from Pyogenic Infection of the Middle Ear, without Cholesteatoma.*—In this case the most extensive sequestrotomy possible was performed, and having laid bare the tympano-mastoid tegmen, a free issue was given to the extra-dural pus, which had widely separated the dura-mater from the periosteum of the petrous bone. The local and general symptoms improved so much that recovery seemed certain, when a flow of cerebro-spinal fluid took place for some days owing to a spontaneous ulcerative perforation of the arachnoid followed by leptomeningitis and death.

CASE V. *Left Perisinusal Extra-dural Cerebellar Abscess involving the Transverse Sinus from Acute Endo-mastoiditis.*—In the case of this patient, a boy, the extra-dural abscess was due to an acute streptococcal infection of the mastoid cavity. The symptoms of otitic inflammation were associated from the beginning with those of endocranial mischief, while the cutaneous or external symptoms of endo-mastoiditis were wanting. There was pain extending from the middle of the head to the frontal region, a species of cranio-hemi-facial cephalalgia which is rarely the expression of retained exudation in the mastoid cavity. I at once performed mastoidotomy, breaking down two-thirds of the external wall, thereby exposing a natural dehiscence of the internal wall of the cavity corresponding to the sigmoid sulcus, from which issued a pulsating flow of pus. In view of this classic sign, I broke down the wall of the sigmoid sulcus, following the dehiscence as a guide, and thus evacuated all the pus retained between the dura mater and the cerebellar surface of the sulcus. The movement of the sinus was normal; there was only congestion of the large area of the dura mater exposed, about 3 cm. long by 2 cm. wide. The patient, on recovering from the anaesthetic, had no longer the painful subjective symptoms, the pus no longer appeared, nor was there any return of the reflex vomiting, or of the fever which had been observed during the six days preceding operation. Before being chloroformed the temperature was 38.5° C., eight hours after operation it was normal, and to-day, a month later, he is on the way to complete recovery. The repair of the surgical cavity proceeds aseptically, thanks to dry dressings. I avoid all anti-septic irrigation not absolutely called for by true local saprophytism, especially in cases of endocranial infection.

This case shows once more that otitic infections, in order that they may invade the cranial cavity, have always need of openings, either pathological, as from osteitic processes of the cerebral or cerebellar surfaces of the petrous bone, or else by natural dehiscences from arrest of ossification. For this reason, endocranial surgery no longer follows the therapeutical indication, that in otitic infections one must usually enter the cranial cavity by the same auricular path by which the infection diffused itself.

These clinical observations have been confirmed by experimental pathology, and indeed it seems that up to the present no one has been able to bring about endocranial complications either in the meninges, the sinuses, or the brain, by means of infection of the middle ear in a

vast series of animals with pathogenic organisms the most varied both in species and in virulence.

CASE VI. *Extra-dural Cerebellar Abscess in the Occipital Region from Subacute Endo-mastoiditis with Grave Focal and General Symptoms.*—Patient, aged thirty-seven, after sea-bathing, developed a myringo-otitis. It should be stated that these affections are usually due to streptococcus, as I have proved bacteriologically in several cases, and resemble the median otitis which follows nasal irrigation with sea-water, as still prescribed by some practitioners. In the present case, the myringitis was followed by endo-mastoiditis, which a month later was attended by swelling of the retro-auricular region, severe pain in the ear and head, with vertigo and fever. A spacious antrotomy was performed, the mastoid cells being found congested and almost empty of pus; on the other hand, I found a subcutaneous abscess between the occipital region and the mastoid, for which I made a transverse incision in the skin for 4 cm. along the upper curve of the semilunar incision behind the ear, reaching to the periosteum. In this way a necrotic portion of the occipital bone was found outside the occipito-mastoid suture. This was suppurating with granulations, and having been curetted, the dura mater was laid bare. This secondary focus doubtless was due to occipital diverticuli of the mastoid cells, but though secondary, it gave rise to all the symptoms complained of by the patient.

The pus was completely evacuated by this operation, not being in contact with the transverse sinus in its horizontal portion, but below the occipital ridge corresponding to the sulcus, which lodges the sinus as far as the torcular, whereby it did not issue in pulsatile jets.

Thanks to aseptic dry dressings, the parts broken down by the operation were completely repaired in two months, and the pyogenic infection had disappeared from the day following the operation. Endocranial extensions of acute tympano-mastoid infections, as is well known, are the exception, and in such cases we must assume that the meninges are not in a normal state of nutrition through disturbances of the circulation leading to more or less marked stasis. This condition is indispensable in thrombo-phlebitis, and, according to Lancereaux, is represented at certain points of the venous system by the limit of the force of the cardiac impulse and of thoracic aspiration, and displays itself in adults preferably in the veins of the limbs, and in children in those of the encephalon. At such points, owing to the slowness of the current, the micro-organisms, coming from the focus in the form of septic emboli, adhere more easily to the walls of the vessel and there set up the initial lesions of endo-phlebitis.

The following conclusions may be drawn from the preceding cases. Of extra-dural abscesses, I believe that those which are the primary result of circumscribed osteo-pachymeningitis are the most common and the least grave, arising from chronic infections of the internal and superior walls of the middle ear. In otitic endocranial complications, a first and immediate advantage of mastoidotomy is the diminished endocranial pressure and the improved venous circulation due to the hæmorrhage caused by the operation, especially in the region nearest to the otitic infection. Hence the urgency desired for such interference, which is all the more necessary that it acts as a prophylactic against endocranial extension of the infection, not by continuity or contiguity of the process, but by way of the lymph spaces and perivascular lymphatics.

Cerebellar extra-dural abscesses are more frequent than cerebral, either of the middle or posterior fossa. This is undoubtedly due to the tegmen being less exposed through gravitation than the interior wall of the mastoid cavity to the pathogenic influence of stagnant pus, notwithstanding that openings are more frequent in the tegmen than in the cerebellar wall of the mastoid. The symptoms of extra-dural abscesses are rarely typical, and very often run their course without any marked characters to distinguish them from pure endo-mastoiditis with empyema. They may also simulate those of leptomeningitis when the fever is high from the pus being under great pressure and having no outlet into the tympanum or mastoid cavity. Pain, either spontaneous or provoked by percussion of the mastoid apophyses, has no value as a symptom, especially if there is œdema or infiltration of the soft parts; but on the other hand, I attribute a real value in cerebellar extra-dural abscesses to the fact that the pus often flows *in jets from the mastoid surface of the internal wall of the mastoid cavity* owing to the impulse it receives from the sinus, and that it reappears quickly after being wiped away. This sign, which occurs ordinarily in the form of oozing, indicates a deposit of pus beyond the mastoid and in the cerebellar fossa, from which it issues with pulsating movements which are rhythmic with *inspiration*, for then the sinus dilates, always supposing it is not thrombous. Somewhat similar movements may occur in extra-dural cerebral abscess, but these are not rhythmical with inspiration. This pseudo-pulsation is due to the fact that the dura mater is adherent to the intracranial periosteum, causing strong pressure, which makes the pus flow in pulsating jets, which, however, do not coincide regularly with inspiration.

To recognise the presence of pus on the cerebral and cerebellar surfaces of the petrous bone, and to provide for it in time, means to extinguish the first stage of the infection, and to obviate the other graver endocranial complications. It is therefore the duty of the operator to minutely explore the surfaces he exposes by mastoidotomy, whether recurrent fever and localized headache be present or not, and still more so if these symptoms have been present and are not relieved at once by the mastoidotomy.

James Donelan.

Lerner, Dr. (Vienna). — *On Tabetic Deafness*. "Monatschrift für Ohrenheilkunde," October, 1898.

There are two classes of cases :

(a) *Middle-ear cases*, which probably constitute the majority. Many of these are no doubt accidental, and have no causal relation with the tabes; but other cases (of sclerosis, for example) seem to be related to trophic disturbances in the fifth and glosso-pharyngeal nerves. Treitel reports two such cases. There was salivation, and the teeth dropped out painlessly. Collet confirms this view.

(b) *Nerve deafness*, due to changes in the nuclei, trunk, branches, or end organs of the auditory nerve. Only in four cases have exact microscopic examinations been made: three are reported by Haug and one by Habermann. The changes found included atrophy, and disappearance of the nerve fibres in the roots, trunk, vestibular and cochlear branches of the auditory nerve. The nerve fibres were largely replaced by connective tissue, and the sheaths of the single nerve fibres were infiltrated with round cells. The nerve fibres in the saccule, utricle and cochlea and the ganglion cells were all similarly affected. The cells of the organ of Corti looked turbid and granular, and were

reduced in number. There were adhesions between the membrana tectoria and reticularis, and periosteal thickenings on the lamina spiralis. Only in one case was one of the chief nuclei found to be degenerated.

Lerner recounts the following case of bilateral tabetic deafness. Six or seven months after the onset of symptoms of tabes the patient began to suffer from rustling sounds in his ears. There was no deafness—rather hyperacousis. He felt as if people were shouting at him, and was occasionally dizzy. A few days later he suddenly became quite deaf in both ears. There was no pain or fever, no evidence of syphilis or drug poisoning. Deafness was complete for the watch and for speech on both sides. High notes were not perceived, but low notes were. “Weber” central; “Rinné” + on both sides, with greatly shortened bone-conduction.

Soon bone-conduction was almost entirely abolished, and only the notes of the very deepest tuning-fork could be perceived through the meatus. Rustling tinnitus troubled him sometimes for days at a time, and also dizziness, and attacks of shooting earache, lasting several hours. Inflation was felt (there was no anæsthesia of the ear), but it had no effect. There was no evidence of previous middle-ear disease. Lerner excludes primary disease of the labyrinth, labyrinthitis, embolism of the internal auditory artery, and syphilis, and concludes that the auditory nerve was at fault, but whether in the nuclei or more peripherally there is no evidence to show. There were no other symptoms of bulbar lesion. The galvanic current relieved the tinnitus often for several days.

William Lamb.

Spear, E. (Boston).—*Notes upon some New Low-toned Tuning-forks for Clinical Purposes.* “Archives of Otology,” vol. xxvi., No. 4.

It is advised that these should be made of bell-metal, like those made by Edelmann for Bezold, and not of steel.

Dundas Grant.

Zaalberg, P. J. (Amsterdam).—*A Cutting Forceps for Aural Polypi.* “Monatschrift für Ohrenheilkunde,” October, 1898.

A punch forceps on the plan of the conchotome, the upper cutting edge fitting within the lower so that bits of tissue can be removed without pulling.

William Lamb.

CORRESPONDENCE.

REVIEW OF DR. SCHEPPEGRELL'S RECENT WORK UPON “ELECTRICITY IN THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE NOSE, THROAT, AND EAR.”

THE editors have pleasure in publishing Dr. Scheppegrell's letter. They submitted the work to a surgeon engaged in our special work, and an expert in electro-physics. Their note is added below.

To the Editors of the London “Journal of Laryngology.”

GENTLEMEN,—The February issue of the JOURNAL OF LARYNGOLOGY arrived yesterday, and I have read with no little surprise the criticism of my recently published work on “Electricity in the Diagnosis and Treatment of Diseases of the Nose, Throat, and Ear.” As your journal