ABSTRACTS

EAR

The Etiology and Prevention of Chronic Middle-Ear Suppuration. A. H. CHEATLE. (*Acta Oto-laryngologica*, Vol. v., fasc. 3.)

This paper contains a brief but clear exposition of Mr Cheatle's well-known view, that the reason why an acute pyogenic infection of the middle-ear tract is sometimes followed by chronic otorrhœa is an anatomical one, and depends on the fact that in 20 per cent. of all persons, the mastoid process remains throughout life of the acellular type. When the middle-ear tract is infected under these conditions, there cannot be any "mastoid signs," and if complete resolution does not take place and complications do not occur, the disease passes into a chronic stage which may continue indefinitely and be associated with more or less destruction of tympanic structures, and formation of polypoid granulations and cholesteatoma. If, on the other hand, an acute otitis media of sufficient severity occurs in a person with the cellular type of bone, "mastoid signs" are evident in the acute or subacute stage and immediate operation is undertaken. This thesis is illustrated by photographs of Mr Cheatle's specimens now in the Museum of the Royal College of Surgeons.

By far the most common causes of chronic middle-ear suppuration are measles and scarlet fever, and in these diseases the presence of unhealthy tonsils and adenoids greatly increase the risk of ear disease. "A great deal has yet to be learnt as to what treatment is required to prevent the acute middle-ear inflammation becoming chronic." But, "speaking broadly, if, in a case of acute middle-ear suppuration due to any cause, there are no signs or symptoms indicating the necessity for operation and yet the discharge persists for, say six weeks, or if it recurs after apparently ceasing, as it is said to do in scarlet fever cases, operation should be undertaken." The paper concludes with a plea that Aural Surgeons should be attached to the staffs of all Fever Hospitals, and that they should examine the cases daily and have every facility for research and operation. "Observation and treatment should be continuous from first to last, if chronic middle-ear suppuration is to be prevented, as it can be, if surgery and administration work efficiently together." THOMAS GUTHRIE.

Four Cases of Mastoid Disease. T. G. D. BONAR. (*Lancet*, 1923, Vol. xi., p. 1079.)

The first patient, a woman of 59, suffered from acute mastoiditis with septic meningitis; the second, a boy aged 10, from chronic mastoiditis complicated by tuberculous meningitis, an uncommon

condition; the third, a man of 45, had a right temporo-sphenoidal abscess (following mastoiditis) which was not found at the operation; and the fourth, a child of 6, acute mastoditis, with septicæmia, infective endocarditis, and cerebral embolus. All four were fatal, and are further examples of the great potential dangers attaching to acute and chronic middle ear suppuration. MACLEOD YEARSLEY.

Parotid Fistulæ after Mastoid Operation. W. E. GROVE, M.D., F.A.C.S. (*Annals of Otology, Rhinology, and Laryngology*, Vol. xxxii., No. 3), September 1923.

After citing cases recorded by Kretschmann, Combier, Binnerts and others, the author reports his own case wherein bilateral parotid fistulæ followed the simple cortical mastoid operation for suppurative otitis media on both sides. The patient, a child aged 8 years, had very pneumatic mastoids and, on each side, it was necessary to uncover the whole process down to the tip. After convalescence it was noticed that the lower end of the incision was moist after chewing. A fistula was discovered running in the direction of the inferior portion of the auditory canal from which a thin limpid fluid escaped when she chewed. The author points out that all parotid fistulæ occur either during the closure of the mastoid wound or shortly after with the exception of Kretschmann's case, wherein the fistula occurred three and one-half years after the operation.

Binnerts asserts that they are due to injury of the parotid gland during the operation, but, as they are so rarely met with, there must be some other factor such as an abnormal enlargement of the gland which overlaps the mastoid tip. Binnerts also blames the curving of the lower end of the incision which is sometimes adopted for cosmetic reasons. Kretschmann points out that previous infections of the parotid gland may increase its size and so endanger it during the separation of the sterno-mastoid fibres from the mastoid tip. The author reminds us that the inflammation in the ear may be the cause of the parotid enlargement. As to treatment, the fistulæ may be cauterised with chromic acid, fused silver nitrate or the electric cautery. They may also be excised. Occasionally they close spontaneously.

F. HOLT DIGGLE.

Total Deafness due to Trauma with Normal Static Labyrinthine Findings: Report of Two Cases. Drs KOPETZKY and SCHWARTZ. (*Laryngoscope*, Vol. xxxiii., No. 5, p. 340.)

The authors describe in detail two traumatic cases in which the cochlea was completely destroyed, while the vestibular apparatus gave normal responses. The first case showed total deafness of the left ear,

with spontaneous pastpointing, and a typical pastpointing in one of the tests. There might have been a central lesion in this case, but other tests did not confirm this, and the authors were led to conclude that the case was one of traumatic destruction of the cochlea due to hæmorrhage, the static labyrinth being intact. The second case was one of total deafness of the left ear and severe deafness of the right. The static labyrinth and its tracts showed normal reactions with the exception of pastpointing in testing the horizontal canals.

Complete deafness may, therefore, occur without involvement of the static labyrinth or its tracts, and the cases are reported because of the injustice which may be done to patients suspected of malingering deafness, whose vestibular reactions are normal. A dead static labyrinth will help us to confirm total deafness, but a normal static labyrinth will not exclude total deafness.

ANDREW CAMPBELL.

Discussion on Labyrinth Deafness at the British Medical Association Annual Meeting, Portsmouth. DAN M'KENZIE, M.D., F.R.C.S.E. (*Brit. Med. Journ.*, 10th Nov. 1923.)

It is pointed out, to begin with, that however useful may be the ordinarily accepted signs distinguishing obstructive from nerve deafness, they are not by any means infallible: that the slighter degrees of obstructive deafness frequently give a positive Rinne, as may also a severer degree of deafness, due to impacted wax. The commonest form of deafness met with is "mixed," and the findings of the tuning-fork test have to be weighed alongside of the history of nasal or naso-pharyngeal disease, the incidence of variations in degree of deafness with the weather, or with attacks of "cold," the presence of tinnitus or giddiness, and the condition of the Eustachian tube or the tympanic cavity. In many cases of long-continued disease of the middle ear, the pathological process extends to, and implicates, the labyrinth. In some cases the defect in the cochlea may be only functional. "The commonest individual cause of nerve deafness is middle ear disease." We should avoid taking too gloomy a view of nerve deafness when middle ear disease is present—if the latter is likely to be amenable to treatment. Labyrinth deafness in adult life seldom leads to complete abolition of function: of non-purulent diseases affecting both ears, progressive nerve deafness, syphilis, and epidemic meningitis alone are liable to end in absolute deafness.

Broadly speaking, cochlear disease is associated with impairment or complete abolition of the vestibular reflexes. Vertigo is not usually a symptom of the chronic case of nerve deafness: the author found it only in 11 per cent. of cases. In mumps deafness there is neither vertigo nor loss of vestibular reflexes: this would indicate either that

the lesion is not situated in the labyrinth or that it is not of an inflammatory, exudative or hæmorrhagic nature. Vertigo and tinnitus, but more frequently the latter, may be caused by a middle ear or meatal condition without any disease of the labyrinth. Even the "labyrinth storm" may attend almost any disease of the ear, and it may occur in varying degree. It is supposed that when labyrinth storm occurs in the course of a chronic or subacute non-purulent otitis media something happens comparable to the serous labyrinthitis of purulent otitis media, and that the same kind of change occurring in the cochlea may explain "mixed deafness." The difference between the classical symptom-complex of Menière and the type of labyrinthine vertigo so commonly seen is remarked upon. In the latter, the severer deafness following an attack may become less, but, as a rule, some permanent loss of hearing results. Many cases respond to treatment by iodides and bromides. Some believe these attacks to be associated with high blood pressure, while others affirm that an unusually low pressure is more likely to be the cause. Noise deafness, senile deafness, and deafness due to syphilis are dealt with—the last named in greater detail. The Wassermann reaction should be taken in all cases of nerve deafness occurring before the age of 50, especially if the progress is rapid. The patient should also be examined to exclude other diseases as, *e.g.*, tabes, diabetes, or Bright's disease. Any possible toxic condition should also receive due consideration.

T. Ritchie Rodger.

Puncture of the Cisterna Magna. J. B. Ayer, M.D., Boston, Mass. (*Amer. Med. Assoc. Journ.*, Vol. lxxxi., No. 5, 4th August 1923.)

In the series of punctures in 450 patients, no death is known to have occurred directly or indirectly. In only one case was hæmorrhage demonstrated but on several occasions unpleasant incidents occurred, such as vertigo with nystagmus, nausea, and occasionally pain in the face. These symptoms came on suddenly and lasted only a few minutes. Many patients received more than ten injections of serum, while in one case twenty-six punctures were given. The depth at which the cisterna is reached varies with the individual; in adults the distance from the skin is seldom less than 4 cm., and usually less than 5.5 cm., rarely is greater than 6.5 cm.

In any condition in which the cisterna magna is likely to be obliterated either by pressure or by adhesions, or in which the cistern may be displaced, as by tumours, the procedure must be considered as contra-indicated. This is usually associated with the presence of choked disk.

The cases in which the puncture was most frequently made were, in the treatment of cerebral syphilis, especially in general paralysis, for

the introduction of arsphenaminised serum. In suspected spinal cord compression, both cisternal and lumbar punctures were found to give early and reliable diagnostic information by demonstrating spinal subarachnoid block. Puncture was also used for purposes of irrigation in suppurative meningitis, but the results were not satisfactory as a means of simple drainage; and again, to procure fluid for examination when lumbar puncture was not advisable.

The possible dangers of the procedure are realised, and the author advises that preliminary experience on the cadaver is essential to the proper performance of the operation. PERRY GOLDSMITH.

NOSE AND ACCESSORY SINUSES.

Systemic Manifestations of Suppurative Disease in Para-Nasal Sinuses. M. F. ARBUCKLE, M.D., St Louis. (*Amer. Med. Assoc. Journ.*, Vol. lxxxi., No. 9, 1st September 1923.)

The author says there appears to be a very prevalent idea that in children the sinuses are in such a rudimentary stage of development as to be clinically negligible. His own experience has thoroughly convinced him that in many instances this portal of entry of many of the more serious ailments of infancy and childhood has been overlooked. He is convinced that a large proportion of chronic nasal disease in adult life has existed as such since childhood. A series of case reports from children and adults is given to illustrate the intimate association existing between accessory nasal sinus disease and general systemic infection. The great majority of his patients have recovered with local treatment alone. PERRY GOLDSMITH.

Pansinusitis and Septic Thyroiditis. ANDREW ANDERSON, M.B., Ch.B. (*Brit. Med. Journ.*, 24th November 1923.)

This is the record of a case coming under treatment for inflammatory enlargement of the thyroid gland, with febrile symptoms and severe headache. When fomentations to the neck had proved unavailing, the gland was incised without obtaining pus, which, however, appeared after a few days. The febrile symptoms subsided but recurred, and after reading an article by Sir St Clair Thomson, the author says he had the nose explored for a possible focus of infection. One maxillary antrum and both ethmoidal labyrinths were found to contain pus, and the clearing out of these cavities was followed by recession of the symptoms. T. RITCHIE RODGER.

Abstracts

Twenty Cases of Persistent Headache of Sphenoidal Origin. Drs L. DUFONEMENTEL et VINCENT. (*Revue de Laryngologie*, October 1923.)

The authors have selected twenty out of a series of sixty cases of headache, referred to them, in which treatment of the sphenoidal sinus and posterior ethmoidal region has proved effective.

The cases are divided into three groups:—

1. *Acute cases*—of which five are quoted with average duration of pain one week. All of these answered rapidly to a periodical application of cocain and adrenalin followed by antiseptics, to the anterior sphenoidal region.
2. *Chronic "benign"*—eight cases with average duration of pain, over one year, treated in the same way as those of group 1, and all of them responding to treatment in less than one month.
3. *Chronic intractable*—seven cases quoted. These cases responded in no way to palliative treatment, but cleared up at once as soon as the sphenoidal sinuses and, in some cases, the posterior ethmoidal cells were opened up.

In conclusion, the authors maintain:—

(1) That a large proportion of the headaches, especially those of the occipital region which resist medical treatment, are due to unsuspected trouble in the sinuses and will disappear rapidly on directing treatment to this region.

(2) There appears to be no proportion between the inflammatory signs found on inspection, and the intensity of the pain, which probably depends rather on anatomical variations; but in most of these cases signs of local congestion were present.

(3) Before undertaking treatment of the sinus region, it is very desirable to have reliable information on the patient's general health, and to exclude other factors which may be keeping up the trouble. J. B. CAVENAGH.

LARYNX.

Congenital Obstruction of the Larynx. GORDON B. NEW, M.D. Rochester, Minn. (*Journ. Amer. Med. Assoc.*, Vol. lxxxi., No. 5, 4th August 1923.)

Six cases are reported from the Mayo clinic illustrating different types of congenital obstruction of the larynx and pharynx. One common symptom, respiratory obstruction in the new-born infant, was present in all cases and forms the basis of the author's study. The most interesting case recorded was one of bilateral abductor paralysis in a child ten months old.

The paper is well illustrated and the literature very carefully and fully recorded. PERRY GOLDSMITH.

Larynx

On the Ætiology of Laryngeal Papilloma. Egon Victor Ullmann. (*Acta Oto-laryngologica*, Vol. v., fasc. 3.)

The author conducted a number of inoculation experiments, employing as his material the papillomatous tissue removed from the larynx and trachea of a boy six years of age. He produced, in this way, papillomatous growths on the vaginal mucous membrane of the dog and on the skin of the human arm, and flat warts on the skin of the face and scalp. It was, moreover, found possible to transfer to the human skin papillomata as far as the third generation, in which case the virulence was increased and the period of incubation shortened from about three months to five weeks. Of six inoculations with a bacteria-free filtrate two were successful. It is suggested, therefore, that laryngeal papilloma should be regarded as the result of an inflammatory reaction to an invisible filterable virus.

Thomas Guthrie.

Some Observations on Laryngo-Fissure and its Technique. F. Holt Diggle, F.R.C.S. (*Practitioner*, Nov. 1923.)

The history of the operation, from 1851 onwards, is given and the lymphatic distribution of the larynx is described in considerable detail. It is pointed out that very little communication exists between the lymphatic vessels above the true cords and those below, and that communication between the two sides of the larynx is free posteriorly across the arytenoid region, but very sparse at the anterior commissure. The supra-glottic area drains to the digastric gland, to the glands on the bifurcation of the carotid artery, and to glands in the deep cervical chain, chiefly at the level of the lateral lobe of the thyroid gland. The subglottic area drains to the prelaryngeal, pretracheal, and subclavicular glands. Thus, growths above the true cords tend to spread towards the superior aperture of the larynx while subglottic growths spread along the trachea: but glandular involvement is, as a rule, a very late incidence in the disease.

The author's operative technique seems to differ from the usual procedures in the following points:—

(1) The insertion of a sponge upwards through the tracheotomy wound before inserting the tube (and, therefore, previous to opening the larynx).

(2) Routine ligature of the superior laryngeal artery. For this purpose the upper end of the skin incision is continued outwards on the side corresponding to the growth, and the soft parts are dissected off the thyro-hyoid space till the vessel is seen passing under the thyro-hyoid muscle. T. Ritchie Rodger.