narcosis the very constitutional condition one of whose manifestations is the hypertrophied naso-pharyngeal adenoid tissue for which we so frequently operate.

But six authentic cases of death attributable solely to the adenoid operation are on record—all from hæmorrhage, primary or secondary. Deaths due to tonsillotomy are of extreme rarity. We have then operations whose mortality is insignificant showing in less than five years eighteen deaths attributable to the chloroform administered for their performance. The conclusion seems inevitable that the use of chloroform for the removal of hypertrophied pharyngeal and faucial tissue is attended by great risks, and that chloroform should be used for this purpose only under peculiar circumstances and after careful consideration.

The brief anæsthesia usually required for the adenoid operation may be obtained in the majority of cases by nitrous oxide and ethyl bromide, or if a longer period of anæsthesia is desired we can use ether.

In conclusion, the following affirmations are submitted for discussion :

1. Statistics show an exceptionally high mortality from chloroform anæsthesia in the operation for the removal of lymphoid hypertrophies of the pharynx.

2. The observations of the Vienna pathologists show that sufferers from "adenoids" frequently belong to an abnormal constitutional type that has been found peculiarly susceptible to chloroform narcosis.

3. In view of the statistical and pathological data presented, the general use of chloroform in the operation for hypertrophied tonsils or naso-pharyngeal adenoids is inadmissible.

AURAL EXOSTOSES.

By R. LAKE, F.R.C.S., etc.

THE following notes are of some interest as dealing with other methods than those adopted by Goldstein (July number, JOURNAL OF LARYNGOLOGY).

The division of these tumours into ivory or pedunculated, and cancellous or sessile, whilst most useful, is not always, or, indeed, often, evident before operation is undertaken ; nor if it were would it do more than save putting out a few extra instruments.

There are various methods of operating through the meatus, which are the only ones which will receive consideration here, retro auricular operations being only undeveloped mastoid operations.

The dental drill, chisel, and screw all have their advocates. The drill is in most cases generally recognized as the easiest and most expeditious means at our disposal, using various sizes and shapes of burr. It is usually advised to use a protector beyond the tumour to save the membrane from injury, but few aurists would now operate on a growth sufficiently small to allow of this being done where the membrane was

https://doi.org/10.1017/S1755146300191760 Published online by Cambridge University Press

still intact. Hovell, who invented the screw, bores into the base of the exostosis, and then, by means of a specially prepared screw twisted into the hole thus made, breaks it off. This would be a less sure method in the cancellous variety.

When the tumour is within easy distance of the operator, and a chisel can be kept well under control, the chisel will be found a useful instrument.

In the first case dentists' enamel chisels were employed ; these are too highly tempered as sold, and must have the temper drawn if the operator wishes to avoid the annoyance of one breaking, as happened in Case I. As all these growths increase in size from the surface, the removal of that part of the meatus which covers it is an advantage, for in one instance which came under my observation, in which an exostosis deeply situated on the posterior wall had been removed—indeed, the patient brought it in his pocket—presented, when all inflammatory swelling at length went down, an exostosis of, as far as one could judge, the same size and shape as the original ; here it must have grown again from the cartilage, which was left intact, the operation having been post-auricular.

The patient whose case is given first had never bathed in the sea or n a swimming bath. The remaining patient (they were all men) had a distinct cause in his irritating otorrhœa. One is thus left in the dark as to the exciting cause, not only in these cases but also in exostoses in general.

"Hyperostosis" is a term used to designate a condition of a somewhat different nature—that is to say, a more or less uniform bony stricture of the external meatus, which is usually found as a sequel to either a chronic discharge from the middle ear or a chronic eczematous inflammation of the meatus (Case II.).

If the former condition is still present it is necessary to perform a Stacke operation, in order to protect the patient from the increasing risk of intracranial complications.

The view recently put forward by A. Hartmann that hyperostosis is merely an error of development hardly commends itself to one, chiefly as it is so constantly found in association with the before-mentioned diseases, and often appears latish in life.

A. B., aged seventeen, presented himself for treatment at the Royal Ear Hospital in January, 1898, complaining of deafness affecting both ears, the left being worse, and of longer duration than the other. The eft external meatus showed on examination a projection, deeply seated and arising from the anterior wall ; it was firm and hard to the probe, obviously a bony mass; the finest Hartmann's probe could not be passed by the obstruction.

There was no doubt as to the nature of the little tumour, but there was no means of determining before operation as to whether or no one had to deal with an ivory or cancellous exostosis, its depth in the canal rather favouring the former.

Tuning-fork reactions were normal as to bone conduction on both sides, but on the right there were extensive synechiæ, which made the restoration of the left to its proper functions imperative.

Assisted by Mr. Yearsley, I proceeded to remove the growth through the meatus. All hope of its being pedunculated was dispelled on exposing

https://doi.org/10.1017/S1755146300191760 Published online by Cambridge University Press

its junction with the meatus ; it was then slowly removed by means of fine enamel chisels (one breaking in the process). The operation was very tedious, but entirely effective ; the base of the exostosis, which extended over half the circumference of the canal, was brought to a level with the rest of the wall, except above, where a portion of the meatal wall flaked off, which, though not intentional, improved the general effect.

The meatus was kept plugged with bi-cyanide gauze, soaked in one-twenty carbolic, for two weeks, when home treatment was adopted. In April, however, plugging was again necessary to prevent contraction of the canal. The hearing is practically normal. The operation was done through the meatus, as reflecting the auricle would have given no more room in this case.

Case II. Gunner H., sent to me by Mr. Stuart, of Harwich, had double otitis media suppurativa chronica, and was very deaf ; bone conduction, however, was good. On examination the external meatus was found to be almost occluded on the right side, the left presenting a considerable destruction of the membrane.

The occlusion on the right side proved to be due to bone. There were three masses of bony growth fused to a large extent at their bases, and beyond, or deeper, was much inspissated and offensive pus, the remaining opening being sufficiently small to be capable of total obstruction at any time. In this case a Stacke operation, with a meatal flap after my method, gave an excellent result. Hearing for ordinary speech ; before, three feet ; after, sixteen feet, easily.

ANNOTATIONS, &c.

BRIEF NOTES ON A CASE OF LABYRINTHINE CONCUSSION.

By R. LAKE.

J. C., police constable, aged forty, was sent to the Ear Department, St. Thomas's Hospital, by Mr. MacKellar. He gave the following account of his trouble.

Five months before he had concussion of the brain ; he lost consciousness, and had a discharge of blood from the left ear at the time, and shortly after found that he was deaf in the left ear. He also suffered for some time with vertigo, and completely lost his sense of smell and taste.

On examining the ear no trace of any rupture of the drum or fracture of the meatus was found. The patient had a high humming tinnitus on the left side. The tuning-fork tests demonstrated a great loss of bone conduction on that side. Galton's whistle, however, showed that the uppermost turns of the cochlea were intact; there was some appreciation of the fork by aërial conduction. He was given mercury for three months, on the chance of some improvement taking place ; but he did not respond to the treatment.

https://doi.org/10.1017/S1755146300191760 Published online by Cambridge University Press