Otorrhoea, and its consequences / by W.R.H. Stewart.

With the Author's compts

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OTORRHŒA,

AND ITS CONSEQUENCES.

BY

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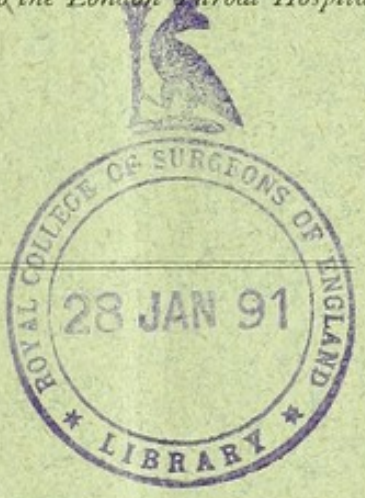

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PREFACE.

I HAVE been induced to publish this small pamphlet from the number of cases that have come under my care, where the hearing powers have been completely ruined, and in some cases fatal results have occurred, owing to the non-intervention policy advocated by many medical practitioners.

The invariable answer to the question, Why have you not had your ears attended to before? is: I have been told by my doctor never to interfere with a discharge from the ear! and sometimes with the addition, that the discharge is of a salutary nature, as if, as the American Rossa remarked, the Creator would not have made us all with running ears if it was necessary to our well being. There are no data, pathological or otherwise, from which to draw such conclusions; and I think there are no words strong enough to condemn those medical men who give such advice to patients who trust in them.

It is not my intention to enter deeply into the pathology of the subject of otorrhœa, but merely to state a few facts relating to the symptoms, treatment and sequelæ, hoping to draw attention, more especially that of the general practitioner, to the ruinous practice of allowing a discharge from the ear to continue, and to show how easily a cure may sometimes be effected in the earlier stages, and so perchance save not only the hearing power and perhaps the lives of a number of patients, but also prevent them from going about with what at times is a most offensive discharge, and becoming a nuisance to themselves and all about them. It should also be borne in mind that otorrhœa may invalidate a life insurance.

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OTORRHŒA,

AND ITS CONSEQUENCES.

OTORRHŒA, or a chronic discharge from the ear, is one of the most common forms of ear disease, and one which causes a great deal of mischief on account of the neglect and ignorance shown, not only by the patient, but also by the doctor. It usually follows an acute attack of middle ear catarrh, from the bursting through the membrana tympani of matter pent up in the middle ear, and in the majority of these cases it is due to an attack of an exanthem, more especially scarlet fever or measles. Otorrhœa sometimes follows an acute attack caused by the inhalation of sewer gas, arising from an unsanitary house, and is often only curable by removal to a more healthy spot. It also occurs in patients, more especially children of a strumous or phthisical constitution, from whom no history of a previous acute attack can be obtained; in these the discharge comes on gradually, usually without pain, and if allowed to continue goes on for years, becoming more and more offensive, and feeding on the delicate structures of the middle ear, is often followed by the serious consequences to be presently enumerated. An inflammatory condition of the external meatus may cause a discharge from the ear, but these cases are not serious, and soon yield to treatment.

The symptoms of otorrhœa, of which the following are the chief, vary much in different cases.

There is usually a varying amount of deafness; a more or less constant and often very offensive discharge from the ear; pain is sometimes complained of, but more often there is none; there may be some tenderness on pressure in front of the tragus or over the mastoid region. Very often an eczematous rash with ulceration of the lobule is produced by the constant discharge. Giddiness and noises in the head are sometimes most distressing. Epileptic attacks may occur, and loss of taste through the chorda tympani of the affected side being involved.

On examining the membrane, it will be found to range in colour from a pale pink to a deep red. It is often thickened with signs of cicatrisation or of a deposit of cretaceous matter. A perforation varying in size from a pin's point to complete destruction of the membrane is usually present. In order to observe the membrane properly, it is often necessary to carefully syringe and dry the ear before an examination can be made; to do this, a little lukewarm water should be used, no force whatever being employed, and the ear dried with absorbent cotton wool twisted round the end of a probe, or cotton-wool holder. If the perforation is very small, and situated in the anterior portion of the membrane, it cannot be always seen, and can only be diagnosed by the bubbles of air driven through by the air douche (Politzer's bag).

The prognosis must always be guarded, as in the event of the perforation not healing, the hearing will remain permanently impaired, although in some cases, where the membrane is almost entirely destroyed, a fair amount of hearing power remains, provided the stapes is left in position, the waves of air striking directly the base of that bone.

In treating these cases the following indications should be borne in mind:—(1) Obstruction to the hearing parts, caused by collection of secretions; (2) Obstruction to the vibrations, caused by the swollen condition of the mucous membrane; (3) Perforation of the membrana tympani.

It is of the utmost importance that thorough cleanliness

and attention to the general health should be adopted. Astringent local applications are often without avail if these two conditions are not persevered in, and change of air is often essential to a complete cure. The ear should be carefully syringed out at least four times a day with a warm weak solution of carbolic or boracic acid, care being taken not to use the syringe too forcibly, but merely to gently wash out the ear; and the air douche through the Eustachian tubes, either by Politzer or the Valsalvan process, being used at the same time will drive the secretions in the cavity of the tympanum into the meatus to be washed away, and at the same time draw a small amount of the fluid into the tympanum.

Lotions such as sulphate of zinc, gr. ii. to ℥i. of distilled water, acetate of lead, gr. i. to ℥i. of distilled water, or sulphate of zinc and carbolic acid, each gr. v. to ℥i. of distilled water; finely powdered boracic acid, alternated with from ten to twenty drops of rectified spirit, or powdered iodoform, should be used locally three or four times a day, and I have often found the following ointment of great use when all other remedies have failed, viz., ten grains of the powdered root of the Hydrastus canadensis to ℥i. of vaseline carefully applied. One kind of application should never be continued for long at a time, but should be continually altered, unless, of course, it is doing marked good. It should always be borne in mind that great patience and perseverance is necessary on the part of the patient as well as the doctor to effect a cure. It may not be out of place to mention here that a small quantity of either powered coffee, vanilla, or attar of roses will completely disguise the odour of iodoform. If the perforation of the membrane does not readily heal, and the destruction of membrane is not too great, the repeated application of nitrate of silver to the edges will often speedily effect a closure. The nitrate of silver should be fused on the end of a probe, and care be taken only to touch the edges; the application of sized paper over the perforation has been recommended. If these remedies fail, and the perforation is small and round, a slight incision at opposite ends will sometimes cause it to heal.

Tonics are generally necessary, iodide of potassium in combination with strychnine or tartrated iron being very useful, and strumous children should be given steel wine and cod-liver oil. In cases where there is much pain, from three to six leeches in front of the tragus—repeated, if necessary—will usually speedily relieve it. A calamine lotion will readily heal the eczema and ulceration of the lobule, provided perfect cleanliness is employed. Artificial membranes of various kinds have been recommended for those cases where the perforation is very large; and where the chain of ossicles remains intact, they are very useful. Those made of a small pad of absorbent cotton wool with a piece of fine silk attached are the best, as they are less likely to irritate than the more elaborate ones composed of india rubber and wire. The pad should be gently pressed against the remnant of membrane, and should never be worn long at a time, being instantly removed in case of pain or discomfort. If there is any discharge from the ear, slightly moisten the wool with an astringent lotion.

The following case well illustrates how readily otorrhœa will sometimes yield to treatment when taken comparatively early.

A lady, aged twenty-one, consulted me for an offensive discharge from the left ear, which came on three years previously after a sharp attack of scarlet fever. She was very deaf, only hearing my watch in contact. On examining the ear, after careful syringing and drying, a largish perforation was discovered through which the discharge came; there was a good deal of pain, and the discharge was most offensive. She was ordered four leeches in front of the tragus, the ear to be syringed out six times a day, with warm carbolised water; acetate of lead drops in the ear three times a day, and iodide of potassium with nux vomica internally. At the end of the first week the discharge had lost its offensive character, by the end of the month it had entirely ceased, and the watch could be heard at a distance of two feet.

The serious consequences which may follow neglected otorrhœa, besides complete deafness, may be briefly enumerated as follows :—

(1) Ulceration of the lobule.
(2) Aural polypi and granulation tissue.
(3) Mastoid disease.
(4) Caries of the temporal bone.
(5) Meningitis and cerebral abscess.
(6) Erosion of blood vessels.
(7) Facial paralysis.
(8) Phlebitis, producing lobular pneumonia, with gangrene of the lung and metastatic abscess in the liver and other organs.

(1) *Ulceration of the lobule* may be only slight, but I have seen cases in which the lobes have been to a large extent destroyed by the continuous pouring out of an irritating discharge from the meatus.

The ulceration readily yields to cleanliness and some antiseptic lotion, such as a weak solution of carbolic or boracic acid. In a severe case that came under my care, in which the lobule was completely divided, by paring the edges and bringing the parts together, I was able to form a very respectable lobule.

(2) *Aural Polypi and Granulation Tissue.*—Aural polypi, which may be either mucous, fibrous or myxomatous, usually grow from the upper and inner wall of the tympanum, the membrane itself, or from the walls of the external meatus; they vary in size and can easily be diagnosed, presenting a moveable tumour in the meatus. A probe passed gently round readily shows the situation of the pedicle. The obvious treatment is removal, and the best instruments for the purpose are Blake's modification of Wilde's snare, or Hinton's ring forceps. Where the tumour is large, a portion only of it may come away at the first attempt, and more than one sitting may be necessary to get rid of it. After the removal the pedicle should be touched with some caustic, such as a saturated solution of chromic acid, nitate of silver, or a strong solution of

perchloride of iron. To thoroughly cure a case of aural polypus requires, as a rule, both time and patience.

The following fairly illustrates a case of aural polypus.

A. D., aged seventeen, from the Grotto Home, came under my care at the hospital with a polypus in each ear. He had been gradually getting deaf for some years, and had an offensive discharge from both ears. On examination, I found a large polypus in the right ear, and a smaller one in the left; the former I removed with the snare, the latter with Hinton's ring forceps. They both came away at one sitting, and there was no recurrence; the discharge rapidly disappeared, and the hearing powers returned.

A curious case of aural polypus, complicated with impacted cotton wool, came under my notice at the hospital.

J. F., aged fifty, a clerk, had for many years a more or less offensive discharge from the left ear, which had lately grown so offensive that he had lost his employment in consequence. He had been in the habit, in the earlier stages of the discharge, of inserting cotton wool in the meatus to stop the smell when he went to work, but had not done so for the last ten years, as it did not answer his purpose; he was quite deaf on the left side, and lately had felt a good deal of pain. On examination, a large polypus was seen filling the external meatus; on attempting to remove it with Wilde's snare I found that the instrument was obstructed at a short distance and I could only get away a small portion of the polypus. I then found that the obstruction was due to a hardish substance, which, on being brought away, proved to be hardened cotton wool; the remainder of the growth was then easily removed, and after the usual treatment the hearing was fairly well restored. The case is curious from the fact that the polypus should have evidently grown over the cotton wool, instead of pushing it before it, and also that the cotton wool should have remained for ten years impacted in the meatus.

Granulations often spring up when there is much dis-

charge, and when formed are very instrumental in keeping up that discharge; they most commonly grow from the membrana tympani, the external meatus, or the cavity of the tympanum itself, and are very abundant when there is carious bone. They frequently disappear without any special treatment, but as a rule require some caustic, such as a strong solution of nitrate of silver, iron, or chromic acid, applied by means of cotton wool on a roughened probe. The instillation of rectified spirit has been recommended and in some cases does good, but it should not be kept up too long, as the alcohol has a tendency to absorb too much moisture from the tissues. Gallic acid, applied either by brush or insufflation, is useful, and it may be necessary to scrape the granulations away with a sharp spoon. In the case of carious bone, removal of the exciting cause is also required.

Mastoid Disease frequently occurs from neglected otorrhœa, and when present gives rise to grave anxiety, owing to the important structures, separated only by delicate partition walls, lying around. It may be divided into superficial and deep. In the former the periosteal covering, and in the latter the interior of the bone, are the parts affected.

In the superficial variety the symptoms are violent pain with great tenderness, redness and swelling behind the ears, the auricle usually standing straight out from the head and the swelling occasionally extending down the neck.

The treatment consists in at once cutting down on the swelling over the mastoid. The knife should be entered at a point about half an inch behind the auricle and on a level with the external meatus; the incision should be made from below upwards, and deep enough to divide the periosteum, evacuating any pus that may be collected—bare bone is usually felt on examining with a probe. An opening may have been made through caries into the mastoid cells; syringing with warm carbolised solutions, and other antiseptic precautions should be taken, and the wound kept open until all discharge has ceased, bare bone covered, and loose dead bone come away. If the pain after

the incision continues or becomes acute, leeches, from four to eight, as the occasion warrants, repeated if necessary, in front of the tragus, will, as a rule, speedily relieve it.

The following case shows the importance of early incision on to the mastoid in the superficial variety of this disease.

M. P., aged eight and a half, came under my care at the hospital with the following history. A discharge from the left ear, with some amount of deafness for about five years; had been seen by two doctors, both of whom advised her mother to do nothing to stop the discharge from the ear. The day before coming to the hospital she had been suddenly seized with great pain, and there was a considerable swelling, with redness and tenderness around the ear, the swelling occluding the meatus. Under chloroform I immediately cut down on the mastoid, and evacuated a quantity of thick, rather offensive pus; a large surface of bone was felt to be bare, and a small polypus was at the same time removed from the meatus. The ear and wound were both syringed out with an antiseptic wash, and three leeches ordered in front of the tragus, if the pain continued. Under the influence of astringent lotions and tonics the patient made an excellent recovery, the bare bone entirely covering up, the discharge ceasing, and a fair amount of hearing power remaining.

When the disease is in the interior of the bone, it is much more serious, and the chief symptom is the deep-seated character of the pain, with very slight tenderness, and little or no swelling behind the ear.

In the treatment it is essential to see that there is a free escape for the pus, that the Eustachian tubes are pervious, and the external meatus not blocked. If there is any bulging of the membrane, an incision should be at once made; leeching and a free incision over the mastoid will sometimes relieve the urgent symptoms. Saline purges and opium should be administered. If these means fail, it may be necessary to open the mastoid cells, but this should only be done as a last resource.

The mastoid cells have been known to become quite solidified from the inflammatory processes ossifying in them.

Caries of the Temporal Bone.—Any portion of the bone may be first attacked; where the mischief is deep seated there is often very great pain, but it is not always present. When the tympanic walls are the parts affected, there is usually abundance of granulation tissue thrown out. In all cases when the discharge is watery and offensive there is a grave suspicion of caries.

When possible the probe is the best method of diagnosis, but in deep-seated disease this is of course impossible.

The treament consists of warm antiseptic injections, opiates to relieve pain, general constitutional treatment, removal of all the carious bone where possible, and when a fistulous opening from the mastoid cells behind the ear exists, it will be necessary to enlarge it, and, syringing through the ear, bring away pus and loose particles of bone through the mastoid opening.

Meningitis and Cerebral Abscess.—Rigors, headache, increased temperature, photophobia and optic neuritis occurring in a case of otorrhœa are always certain indications of cerebral mischief.

The treatment should be that laid down in the different text-books on surgery for the treatment of these diseases, and in addition care must be taken to keep the ears thoroughly washed out with a warm antiseptic lotion; trephining the mastoid may give relief.

Erosion of Blood Vessels.—Caries of the temporal bone may lead to erosion of the internal carotid artery or jugular vein, with, of course, a fatal termination.

Facial Paralysis may occur from that portion of the portio dura which runs through the tympanum being affected; where there is caries with profuse suppuration recovery is not likely to take place.

Counter irritation behind the ears, and iodide of potassium internally, may do some good.

Phlebitis.—The jugular vein and lateral sinus are liable to become inflamed, producing lobular pneumonia, gangrene of the lung, and metastatic abscesses in the liver and other organs.