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[*With J. J. Kirk Duncanson's Compliments.*]

REPORT OF  
ONE HUNDRED CASES  
OF  
DISEASES OF THE EAR.

BY

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## ONE HUNDRED CASES OF DISEASES OF THE EAR.

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IN one hundred cases taken from the case-book of the Dispensary for Diseases of the Ear, 6 Cambridge Street, Lothian Road, from July to the end of December 1875, we have the following diseases of the ear coming under treatment:—One case of acute erysipelas of the auricle, occurring in a young debilitated female, which yielded readily to general and local treatment.

Two cases of acute eczema, both occurring in females, one affecting both ears in a young, strong, otherwise healthy, married woman, who was nursing a healthy child. The disease was very acute, throwing off an enormous secretion, which, running down the cheeks and neck, irritated the parts over which it ran. It lasted with the winter in a more chronic form. Hebra's ungt. diachyli<sup>1</sup> gave most relief, with the internal use of iron and arsenic. The other case, in an elderly woman, resulted from scratching and irritating with exposure to cold a chronic eczema, lodging in the groove between the helix and antihelix of the right ear. There has been under my care for years, one case of chronic eczema affecting the external depressions of both auricles, never affecting the hearing, and improving greatly, sometimes almost disappearing in the summer time. The disease occurs in an old housekeeper, who, besides the internal use of arsenic and iron, applies some simple ointment; one containing a small quantity of sulphate of iron is most beneficial.

One case of deformed auricle, a long strip of corrugated skin, with the appearance of a distinct lobule, no external auditory meatus, unless the small dimple from which the markings of the rudimentary auricle run, can be held as its representative. The patient had no hearing on that side of the head, and completely concealed his deformity with his hair. The other ear was normal, but the hearing was impaired, and he suffered considerable pain from a hard plug of wax firmly wedged in the bottom of the external auditory meatus. The patient, a lithographer, did not like to show me his left ear, and refused to allow me to get a sketch or photograph of it; but there is a figure of a rudimentary auricle very like his in Gruber's *Lehrbuch*, page 275, fig. 50. See also Toynbee's *Diseases of the Ear*, page 18, for the description of dissections of such cases; quoted cases, see Wilde and Roosa.

<sup>1</sup> See Gruber's *Lehrbuch der Ohrenheilkunde*, page 294.

One case of malignant disease, arising from the tympanum in the left ear, was for a long time previously treated as a case of simple mucous polypus. Of late the disease had returned very frequently and with pain; during the six months, July to December 1875, it assumed a different form and consistence, and in the course of one week the meatus would be blocked up with gristly brittle growths extending out into the concha. The disease began about the year 1870 from a blow upon the ear when out at sea in a fishing-boat. The ear was not much pained at the time, but the patient thinks that from the exposure he got cold in the ear, which laid him up for some time, when a discharge came from the ear giving relief. Afterwards a growth came out of his ear, which was removed. A growth had been frequently removed since then with great relief to the patient. Latterly the masses blocking up the external auditory meatus were cut out by curved hook-shaped knives made for the purpose. When the meatus was completely filled the patient suffered intensely, but if we could allow a free exit to the secretions from the deeper parts by the meatus he was in comparative ease. The disease after having fairly assumed a malignant type spread very rapidly, and the patient suffered agonizing pains in the head before unconsciousness relieved him; in which condition he died.

One case of diffuse inflammation of the external auditory meatus, occurring in an old woman, the subject of chronic eczema of the meatus. She was in the habit of using pins, etc., to scratch the meatus, the itchiness being frequently very troublesome. This patient's auricles had lost mostly all their markings, lying very flat and close to the side of the head.

One case of a sore affecting the incisure between the tragus and antitragus. The patient had had a chancre, and the sore yielded to the application of anti-syphilitic medicines.

Two cases of chronic eczema affecting the deeper part of the external auditory meatus, both in females, with a tendency to corpulence. The treatment of these cases is tedious, and the disease in dispensary practice is difficult to overcome. Some of the alkaline mineral waters appear to act beneficially. In all cases the diet of the patient requires to be inquired into.

One case of circumscribed inflammation of the external auditory canal or furuncles of the canal. Usually, we have more than one furuncle occurring when this disease affects the patient's meatus. Early free incision with Gruber's knife, and the application of carbolic-oil into the external auditory meatus, with a plug of cotton-wool dipped in the carbolic-oil, 1 to 15 or 20, has been the most successful treatment locally, and it has been found most successful when the membrana tympani was entire. We require to attend to the general health of the patient. Two cases where a large opening about  $\frac{1}{8}$  of an inch in diameter existed in the membrana tympani of one side—one the right, the other the left—the results of a purulent discharge from the tympanum having escaped through the membrane by ulceration. The patients complained of a whistling

noise in the ears on using their handkerchiefs to clear the nostrils. They were also the subjects of subacute catarrh of the eustachian tubes and tympana, the faucial orifice specially becoming closed when the patients suffered from cold.

In the case of a young lad, aged 16, the membrana tympani of the left ear was represented by a tensely-stretched, plain, whitish, non-lustrous membrane, without any of the markings of the normal drumhead. It was situated not nearly so deep in the external auditory meatus as in a healthy ear. The meatus is narrow and straight. There is a cicatrix with a depression over the mastoid. In the right ear, a purulent discharge coming from the tympanum escaped by the meatus through a perforated, very deeply situated drumhead. The bony part of this external auditory meatus is narrowed from hyperostosis. The lad, a member of the Edinburgh Industrial Brigade, believes that the cause of his ear-disease was scarlet fever when very young. The hearing distance after being under treatment for some time was R.: H. D.: W. =  $\frac{13}{8}$ ; L.: H. D.: W. =  $\frac{6}{8}$ . Where R. means right ear, H. D. the hearing distance, and W. the watch, the denominator of the fraction indicates the number of inches at which the watch can be heard in health; the numerator, the actual distance in the case under examination. The application of the air-douche improves the H. D. in the right ear.

Two cases of disease of the mastoid bone, both occurring in married women, one of long standing, and will probably continue until a sequestrum of bone comes away, which the patient refuses to have removed by operative interference. The second case came under our notice before much injury to the bone had taken place. The pain in and about the ear had been treated as most affections of the ear are: "Syringe the ear, and if that does not do, apply a blister behind it, then it is not good to interfere too much with the ears." In this case the patient had been passing sleepless nights, with a constant overpowering pain, most intense where the auricle unites with the mastoid, and deep into the meatus. The patient felt feverish and had no appetite. She felt constrained of herself to try something to obtain relief, and applied leeches over the mastoid behind the auricles, with hot fomentations afterwards, which gave her so much ease that she was able to venture out of doors. The pain returned (she thinks she got cold), when she continued applying constantly hot fomentations whilst going about her household duties, and on some purulent matter coming from the meatus she got some relief. The patient came to us two days after the discharge from the meatus began. After washing out the purulent discharge from the external auditory meatus, on making an examination with the frontal (laryngoscopic) mirror and speculum, one could see pus coming from a small fistulous opening situated about the middle of the back wall of the meatus, and about  $\frac{1}{4}$  in. external to the membrana tympani. On moving the auricle the patient complained of pain, and on pressing on the textures over the mastoid, the patient felt pain deep in the meatus, and one could

see pus escaping more freely by the fistulous opening. There was no discoloration of the textures covering the mastoid, but the auricle stood out from the temporal bone more than the other. All the parts had a bleached appearance, from the constant fomenting. On making pressure over the mastoid, it gave a feeling of deep-seated pus. The patient was told to use poppy-head fomentations, and I would call at her home next day, as an opening would require to be made behind her ear, to which she consented. I made a free incision down to the bone, about half-an-inch from the auricle, and parallel to it. The bone was felt rough and bare, the periosteum was separated from it. No sequestrum could be felt. The wound bled very freely. It was kept open with lint inserted into the wound. The patient felt almost immediate relief from the tense, stretched feeling which had been almost constant since the pain began, on that side of the head. The purulent discharge from the meatus soon ceased, and the opening behind the ear healed up kindly from the deeper part, until the skin was allowed to heal about ten days after the operation. The patient remained free from pain and trouble with her ear, and at the end of one year reported herself in good health, and had never again suffered from her ear. One case of pain, affecting the auricle and external auditory meatus of the left ear, yielded to morphia and quinine.

There were twenty-one cases of impacted cerumen or wax in the external auditory meatus. In most of the cases, the patients came complaining of such an affection in one ear only; but, on examining the other ear, there was an accumulation of wax in the meatus, which, although not disturbing the patient, was removed as well by the syringe and tepid water. One patient, an old blind man, upwards of seventy years of age, comes every fourth month to have the impacted cerumen removed from both external auditory passages. His hearing is very acute when the external ear-passages are free.

There were seven cases of polypus. In all the cases the polypus arose from the tympanum, and in all of them the polypus was removed by applying polypus-forceps and using torsion. The cases are carefully watched afterwards, and small polypi or granulations removed by Toynbee's forceps or the use of caustic applications. Sometimes the after-treatment is prolonged.

There were twenty-two cases of otorrhœa—two where the otorrhœal discharge came from the external meatus, external to the membrana tympani. In the other twenty cases, the otorrhœal discharge came from the tympanum, escaping through a perforated membrana tympani; or, as in three cases, the membrane was entirely gone as well as the chain of bones of the tympanum.

Four cases, where a fungus growth could be traced with the microscope amongst the purulent discharge coming from the tympanum. This disease has been called myringomycosis, and owes its origin to the development of a vegetable fungus. Roosa gives six varieties of the vegetable parasite that may be found in the ear. I have met with two forms, the *Aspergillus nigricans*, and the *Aspergillus*

*flavescens*. The *Aspergillus flavescens* occurred in three cases of otorrhœa of old standing, and where the patients came from one of the most unhealthy districts in our city, viz., the neighbourhood of the canal basin. The case of *Aspergillus nigricans* occurred in both external ear-passages in a young woman from the neighbourhood of Glasgow, whose condition of health and apparent circumstances gave one the impression that she would live enjoying favourable hygiene. I could trace no deleterious influences in her history. The membrana tympani in both of her ears was entire; but no doubt the parasite had found a congenial soil in a neglected chronic eczema of both external ear-passages. This case is still under treatment—at least, she turns up for a fortnight or so every six or eight months, and is expected soon, but has been away longer than usual this time. A considerable improvement takes place after a careful attention in carrying out the treatment for a fortnight, when the patient, not being annoyed by the sense of fulness and distressing noises in the ear, neglects the constant application of the remedy, the disease soon springs up again and nearly fills the meatus. A strong solution of corrosive sublimate, of the strength of three grains to three ounces of the spiritus vini rectificatissimi of the German Pharmacopœia, is used at first, and this is diluted down with rose-water as the disease subsides; or, perhaps it would be better to say, as the stronger solution becomes unbearable. It is generally only half the strength by the end of a fortnight, and this strength the patient can go on using for a long time. At first it is applied four or five times a day until all the flakes and epidermal scales are removed by syringing with a strong alkaline solution, and it is as these are removed that the original strength requires dilution.

Twelve cases of subacute catarrh of the tympanum and eustachian tubes. These cases generally occur in growing children. The children are out of sorts, do not take proper meals, like to eat "pieces," they are apt to be considered stupid or dull-headed. The deafness arising from the obstruction to the entrance of air to the tympanum through the eustachian tube is generally readily relieved by the application of the air-douche. The general health of the young patients requires to be attended to. Gargling is of great benefit. The early treatment of such cases in a thorough manner prevents the establishment of a more distressing and serious malady apt to rise from neglected cases of subacute catarrh in after-life.

Our next group, chronic catarrh, of which we had thirteen in the hundred cases. This chronic catarrh we find as a very common cause of deafness and other distressing symptoms, such as tinnitus aurium in our changeable climate.

One case of very marked *proliferous catarrh, otitis media hypertrophica* of Gruber, came under treatment at this time. The great distress caused to the patient by the constant noises in his ears was very trying to witness. It seemed as if his reason would be affected from the loss of sleep, and constant distraction from all the affairs of life, caused by the continual noises in his ears and head. No wonder this form of deafness was called nervous deafness by the



old authors. The long-continued use of the hydrochlorate of ammonia in a bitter infusion has given marked relief. Myringotomy did no good.

Two cases of hereditary syphilis in females, where the ears became affected about the age of puberty. The deafness came on gradually, and increased after affection of the eyes had become stationary. In one case, occurring in a young man, neither myringotomy nor myringectomy have given any benefit. One case of acquired syphilis, where, after the patient had been intemperate for some time, ulcerations of the tonsils and pharynx caused obstruction to the entrance of air into the tympanum through the eustachian tubes. The resulting deafness yields to the application of the air-douche, and anti-syphilitic remedies. The use of a gargle of dilute nitric acid is of great benefit, whilst as long as the old soldier does not waste his well-earned pension in injuring himself with noxious stimulants the result of his wounds does not trouble him.

Besides one case of congenital deaf-muteism, there were three cases of acquired deaf-muteism, *i.e.*, where the child has given intelligent answers to questions, and from some cause has lost its hearing at an early age, and forgets the words it had learned. The most frequent causes are scarlet fever, then tubercular disease leading to deposits in the brain or some part of the ear, causing total destruction of the conducting or recipient parts for the sound-waves in the organ of hearing. Scarlet fever was the cause in two of the cases; and, in another, the child heard and spoke well up to about two and a half years, when it suffered from enlargement of the glands of the bowels and severe sweatings, followed by an abscess behind the right ear, leaving a cicatrix with apparent want of bone. When the child recovered after a long illness, its hearing power was gone in both ears, and it soon forgot the words it had learned to speak. Such cases are specially favourable for instruction by the "German System," *i.e.*, where the pupil is taught to speak by imitating the voice of its instructor, and following the movements of the lips with its eyes. Thus, also, it soon learns to know what is spoken. Strange it is, that in Edinburgh, where this method of instructing the deaf and dumb—rather the deaf, not dumb—was in great perfection in the beginning of the present century under the Braidwoods and their successor Mr Kinniburgh, there should be no opportunity of instruction by the German method given to our fellow-citizens, and no means whatever of educating the deaf and dumb by our active School Board. When they have to consider the education of the deaf-mute, the so-called "German method" will, we hope, be adopted for suitable cases.