SUPPURATIVE DISEASE OF THE MIDDLE EAR.

Paper read before the N. B. Medical Society at Annual Meeting held at Moncton, N. B., July, 1890.

BY G. R. F. CRAWFORD, M.D., L.R.C.P., Lond., Eng.

MR. PRESIDENT AND GENTLEMEN,—I feel an apology is due for trespassing upon your time, introducing a paper upon so commonplace a subject as Otorrhœa. Especially is this necessary from the fact of having nothing new or original to offer for the consideration of the Society; however, I promise that my remarks will be very brief, principally touching upon an important brain complication of this disease, two fatal cases of which it has been my misfortune to meet with in my practice during the past year. After a few remarks upon the treatment the subject will be opened up for discussion, and I trust some point may have been referred to in connection with the disease which may call forth the valued observations and suggestions of the gentlemen present, which in truth is the special purpose of the paper. As all of you are aware, gentlemen, the loss of hearing, discharge (fœted in many instances) and exhaustion from prolonged suppuration, important as these matters really are, become only minor considerations compared with the fact the subjects of this disease are in constant peril of their lives from meningitis or abscess of the brain, as well as other fatal complications having for a starting point disease in this portion of the auditory apparatus.

The above considerations invests this disease with an importance hardly second to any with which we, as medical men, have to deal, and as it will, with most of us, almost assuredly be our misfortune to meet with some of those serious complications, we cannot make ourselves too familiar or be too sharply on the alert for the earliest symptoms of an accident liable to take place at any stage of Otorrhœa, either in its acute or chronic form. I can hardly conceive of anything so appalling to the friends, as when a patient, who has been suffering for a few days with what has been considered earache, in the course of another few days is seized with brain symptoms followed soon by death; and I might say that it would be scarcely less appalling to the medical attendant if he had neglected to forewarn the friends that such an ending was one of the possible contingencies of these cases.

I will take up as little time as possible relating the two fatal cases occurring in my own practice during the past year.

First case.—W. D., aged 20, tailor.—Consulted me last December on account of a discharge from the ear. He had a history of a previous discharge about a year before. When I saw him the discharge had been in progress for about a week. Large perforation in drum head membrane. Whether the perforation had remained from former attack or not I could not tell. Under treatment discharge and other symptoms subsided and in about twelve days he was well enough to resume his occupation. I did not see him after that for about a week and supposed everything was going on well. At the end of that time I was called on account of a return of the pain. The patient, however, described this pain as different from the pain which he had when the discharge first began. It was more sharp and severe. This was the only symptom out of the usual course in such cases. I take it as a very significant point in cases of Otorrhœa, to have a return of severe pain without any manifest local cause, such as retention of the discharge or mastoid inflammation. There was free means of exit for any pus which might be secreted in the tympanic cavity, moreover the disease had arrived at a stage of almost complete cessation of the suppurative process. There was no evidence of mastoid disease. This pain, as the sequel proved, was the beginning of the brain trouble which set in violently a day or two after and ended in death in about a week. I did not get a post mortem in this case, and can only surmise as to the mode of extension of the suppurative process to the meninges of the brain as the patient undoubtedly died of purulent meningitis. Was there caries of the upper tympanic wall from the former attack, or did the disease extend through the foramina to the vessels in this location? The former is the more usual mode of extension, as it is the more direct; but as there was no good reason to suppose that caries was present in this case the latter seems the more plausible theory of the manner of extension. However this may be, the post mortem records have settled the question that meningitis and abcess of the brain both occur with no *directly traceable* communication between the diseased tympanium and the part affected.

The viens (although not in the direction of the circulation) are said to be the channel through which disease germs are conveyed to the cranical cavity. A series of cells is also supposed to be the mode of propagation. The question as to how the disease is transmitted, when there is no caries of the tympanic bones, has not yet been satisfactorily answered.

Second case.—J. L., aged 18, admitted to the St. John General Public Hospital last August.—Had a very offensive discharge from left ear, which had existed with slight intermissions during eighteen years. On admission to Hospital he was evidently very sick, having a temperature of 102.5°. The fever and discharge continued to a greater or less degree for about three weeks when he died of unmistakable brain disease. Post mortem revealed a large abscess about the size of a goose's egg in the cerebellum of the same side as the diseased tympanum. There was extensive caries of the tympanic and surrounding mastoid region. In this latter the ulceration made its way quite *through* this part of the temporal bone. The opening was very small and evidently had not existed long before the death of the patient.

There was no external evidence of mastoid disease, but as the case was desperate I thought it best to make an incision, as directed by Wild, hoping to reach carious bone. I found the bone quite healthy at this point, but if I had made my incision quarter of an inch more internal (towards the auricle) I should have struck the opening above described, and thus have discovered a direct way to the seat of the disease. The rule now is, in all doubtful cases as to the direction in which the ulceration of bone is proceeding, is to open into the mastoid cells with drill or trephine, and if it can be made out definitely that any brain symptoms existing is caused by an abscess which can be localized, or by purulent meningitis, an attempt should be made to reach the collection of pus by further surgical interference when a mastoid operation has not relieved the symptoms.

The general trend of surgical opinion now is that in future, persons suffering from abscess of the brain should not be left to die as they have been in the past without an effort being made, by opening the interior of the cranium to reach the brain and drain the abscess; however it has been wisely said "that when *every member of our profession* is sufficiently impressed with the importance of Chronic Suppurative Disease of the Middle Ear and prepared efficiently to treat this disease in all its stages, the occasion for this operation will seldom arise.