

There is no headache and no delirium. Can see pretty well with right eye, which has receded to nearly the level of the other, and the incisions are healing from the bottom. Is still deaf in right ear. Can bend head forward.

The subsequent history of the case is simply that of gradual failure of the vital powers. Extreme emaciation, and death on the 14th April, 1883. Duration of illness, 8 weeks and 2 days.

In regard to the treatment there is nothing unusual to note. The Tinct. Ferri Mur. and Pot. Chlor. given in large doses. Quinine, grs. 5 or 10 were given night and morning, and the patient's strength supported by a liberal diet of concentrated and easily digested food. Stimulants were given very freely. I obtained great benefit in this case from the peptonized beef-tea and milk, giving them by the mouth, and when the vomiting began I gave them freely by the bowels, and they were generally very well retained.

At the necropsy only the contents of the calvaria and orbit were examined. The apex of the orbit and the parts in the immediate vicinity appeared normal. The membranes of the brain were normal with the exception of that portion of the dura-mater which covers the petrous portion of the right temporal bone. In this situation the dura-mater was of a very dark color, thickened and softened. The arachnoid and the pia-mater in this situation presenting a normal appearance.

The surface of the brain was everywhere of normal appearance. When the brain was turned over, pus was seen to issue from the under surface of the occipital lobe. Upon examining more carefully an abscess was found in each hemisphere, and similarly situated on either side. They occupied the centre of the occipital and part of the parietal lobes. They were not encysted. The pus was white and odourless. They were apparently confined to the central white matter, not involving the cortex. They were each about the size of an English walnut. The brain was so soft and friable that I was unable to determine with any degree of certainty whether the two abscesses communicated with the lateral ventricles and through them with each other.

The longitudinal sinuses were healthy. As to the etiology of the abscesses, I think there are two views of the case that might reasonably be taken. The first is that of a phlegmenous erysipelas of the face, causing a condition of pyæmia, with the cerebral abscesses as a result. In this

case the abscess would have been metastatic, as there was no extension backward into the cavity of the skull from the orbit, as in a case reported by Mair, and there was no post-mortem evidence of the inflammation being transmitted from the nasal to the cerebral cavity as in two cases mentioned by Gull. On the other hand, although, as stated by Hugnenin, "the absolute proof of the direct embolic orifice of an abscess of the brain, the accurate demonstration of the infectious embolus is still wanting, we find, nevertheless, important evidence of it in an observation of Boettchen. He found in the cavity of an abscess of the brain which was consecutive to abscess of the lung, a pigment which he was able to declare to be lung pigment." The fact of there being two abscesses, one in each hemisphere, would support the view of the abscess being embolic.

The second theory of the etiology of the abscesses is suggested by the finding of the dura covering the right tympanum in a necrosed condition, and by the continued deafness in the right ear. If this view of the cause be accepted, and Toynbee's law be applied, the disease would have been in the tympanum, which according to him stands in a relative connection with the cerebrum.

Gull, Sutton, Prescott Hewett, Wilks, Aitken, Hammond, and Agnew, all mention disease of the middle and internal ear as a common cause of abscess of the brain.

Hugnenin, the author of the article on encephalitis in Ziemssen, states that abscesses of the brain, which are secondary to affections of the ear, appear to be slightly more numerous than those which arise from injury. The fact of there being no perforation of the tympanum, and the fact of there being healthy brain substance between the bone and the abscess cavity, does not prove that the abscess was not the result of disease of the internal ear. Wilks says he has seen an abscess with a perfectly healthy portion of brain outside, and it was supposed that purulent inflammation had extended to it from the internal ear by means of a vein in the aquæductus vestibuli. That there was a meningitis in the upper cervical region causing the fixity and slight extension of the head, is very probable.

Many of the symptoms one usually looks for in cerebral abscesses were wanting, for example, with the exception of the slight twitching of the arms and legs on the 25th February, there was no