LXVII.

OTITIC EXTRADURAL ABSCESS AND SINUS
THROMBOSIS. REPORT OF A CASE
WITH REMARKS.*

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The case which forms the subject of this report was that of a male, 29 years of age, referred to me on March 16, 1912. The following history was elicited: About one week before coming under observation he contracted a head cold, which was followed in three days by severe earache in the right ear. This has continued ever since with increasing severity, so that he was unable to sleep for several nights. There has been no discharge and no swelling about the ear, but severe pain in and around it. Upon examination the canal was clear, the membrana tympani deeply congested, with necrosis of the superficial epithelium. There was marked bulging of the membrana flaccida and Schrapnell's membrane; hearing was nil for the watch. No apparent swelling over the mastoid, but slight tenderness to deep pressure over almost the entire area; no point of special tenderness could be determined at this time. Physical condition excellent. The patient being from out of the city, was sent to the hospital, and a free myringotomy done. This gave him immediate relief from his suffering, and a profuse, purulent discharge appeared, with the disappearance of all mastoid tenderness. The discharge gradually diminished and in ten days was very scant. The condition of the middle ear showed proportionate improvement, so the patient was allowed to return home with instructions for the care of the ear and to report in one week.

Upon examination one week later there was a profuse purulent discharge from the opening in the tympanic mem-

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brane, and there was sagging of Schrapnell's membrane and the posterior superior canal wall; some tenderness over the entire mastoid area, but now there was extreme point tenderness over the region of exit of the emissary vein; temperature, 99°; pulse, 86. Said he felt perfectly well except for the ear discharge.

In view of the clinical manifestations, I insisted upon his going to the hospital for a mastoid operation. This was done the next morning, and on uncovering the mastoid, pus was not encountered until reaching the deep cells, where it was found the infection was expending its force. The bony wall overlying the sigmoid portion of the lateral sinus was necrotic throughout its entire length. This was cut away and just above the knee of the sigmoid an epidural abscess was encountered and about a half dram of pus evacuated; no granulations were present on the vessel wall. This abscess had exerted so much pressure on the sinus wall that a clearly defined pit was left after evacuation. The sinus below this point was round, firm and resistant, without pulsation. At this stage of the operation, in view of my unsuspected findings, it was a question in my mind just what course to pursue. As this patient had given no clinical symptoms of thrombosis of the lateral sinus, I determined to clean the area as thoroughly as possible, pack it as usual and watch developments. This was done. Examination of the pus showed a streptococcus infection. A differential blood count was made every two or three days for nearly three weeks. This patient went on to a complete and uninterrupted recovery. The only unusual thing noticed in the healing process was that the sinus wall at the upper part did not cover over until the other part of the wound was well filled with granulations.

There are several points of interest to me in this case. The first to impress itself is the impossibility of making a diagnosis of sinus thrombosis before opening the mastoid, as there was absolutely no clinical evidence of sinus involvement, and not until the sigmoid groove was reached and the wall found exposed from necrosis of its bony covering, was it even suspected. Although the findings showed a very extensive infective process around the sinus with the accumulation of a fair sized epidural abscess which had made sufficient pressure

on the sinus wall to leave a pit in it, even after evacuation, there were no clinical symptoms of absorption. This, to the writer, seems rather unusual. Again, was this an infective or noninfective thrombus? This question I am at a loss to answer.

Whiting, in his most excellent monograph on sinus thrombosis, in speaking of the first stage, says: "In this stage recovery is still possible, although improbable without operation upon the sinus, the infective process occasionally resulting in a constructive inflammation, terminating in cicatricial obliteration of the sinus lumen, a conclusion fervently to be desired, but very seldom realized. The anticipation of such a favorable outcome is to be entertained only under most exceptional circumstances, namely, when the virulence of the infection is so far attenuated as to have nearly expended its energies during the invasion of the vessel walls and in the production of the resulting clot, and when the residual activity of the pathogenic organisms present in the thrombus is speedily destroyed by the germicidal action of the phagocytes and leucocytes. Under no circumstances can such thrombi be regarded as noninfective; that the extension to the sinus of an infective inflammation and the introduction into it of infective germs, should produce a noninfective clot, would be an anomalous state of affairs. That, however, the infection may be sufficiently attenuated after producing the thrombus to fail of causing disintegration of the same, in view of the action of the phagocytes and leucocytes, can be readily comprehended." On the other hand, Phillips, in his recent work on Diseases of the Ear, Nose and Throat, takes the opposite position and says: "In the absence of the classical symptoms of infection or thrombosis of the sinus prior to operation, even though a perisinus abscess is discovered, it is inadvisable to explore it either by incision or by puncture, unless its walls are necrotic or gangrenous. Even if the surgeon is convinced that a clot is present, if no symptoms of infective thrombosis have appeared, it is inadvisable to interfere surgically with the sinus. The author is firmly convinced that noninfective thrombi may develop in the lumen of a venous sinus which eventually become organized into connective tissue. To operate upon cases of this type and thereby brave the danger

of infecting the sterile thrombus, is a questionable procedure."

The writer is not prepared to take issue with either of these authors as to the possibility of a noninfective thrombus in the presence of an infective area about it, but we do think that the patient's interest is subserved by not attacking the sinus surgically where there is an absence of clinical symptoms pointing to septic absorption; there can certainly be no harm in waiting until such evidence is present. Under close observation this can be detected at its inception, and the patient's welfare will be only slightly, if at all, jeopardized, with the possibility of an uninterrupted convalescence, without further surgical interference. Frequent blood counts will render valuable assistance, not only in showing us the amount of absorption taking place, but is also a valuable aid in indicating the resistance of the individual. I am now having such examinations made in most of my cases, and am coming to place more and more reliance upon the findings. The outcome of my case at least warrants the procedure adopted.