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A CASE OF RAREFYING OSTEITIS OF THE MASTOID BONE.*

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I present this case of rarefying osteitis of the mastoid bone partly on account of its rarity and partly on account of the fact that this is a unique case in otologic practice, and on account of the rarity of this type of bone inflammation as affecting the flat bones.

On October 21, 1910, a man of 32 years came under my care with the following history: In January, 1910, he developed an acute inflammation in the right middle ear, which subsided after running the usual course. There was a moderate degree of mastoid tenderness, which did not abate with the cessation of the middle ear inflammation. This mastoid tenderness, which was intermittent at first, towards the end of February became continuous, with exacerbations of intense suffering at night. In March he developed what was stated to be an abscess in the canal, which was incised on two separate occasions. There was no relief afforded the patient to the mastoid suffering by the opening of the abscesses in the canal wall; the mastoid pain became more intense with each succeeding month, until the patient was nearly exhausted from pain and loss of sleep, when he came under my observation. The patient states that, while the pain was most intense in the mastoid region, it radiated from this region all over the head. He also stated that large knots formed on his head at night, which would subside during the day.

I must confess that, after listening to the patient's history and his description of his intense suffering, I felt quite skeptical as to its truthfulness. During the greater portion of this period he had been under the observation of several aurists.

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On examination of the patient I found that I had erred in my opinion. There was a slight infiltration of the soft tissue over the mastoid. The auditory canal and the membrana tympani were normal, the whole mastoid region was exquisitely tender—more so that I had ever observed in any patient before—and the slightest touch with the finger would cause him to cry with pain. This tenderness was limited entirely to the mastoid. The patient would permit considerable pressure beyond the confines of the mastoid without any evidence of suffering. A blood count was made the same day, showing 9,300

white cells with a practically normal differential. The patient's temperature taken at this time was 99° ; when taken at the hospital the following morning, it was found to be normal.

I was uncertain as to the nature of the condition which here presented itself, but, feeling that relief was demanded, I decided upon doing an exploratory operation the next day.

The usual operative procedure was adopted as in doing the ordinary mastoid. After incising the infiltrated soft tissues and raising the periosteum, during which a few drops of pus were seen, the exposed bone over the mastoid presented two

peculiar phases, viz., it was of a pinkish color and imparted a decidedly rough sensation to the examining finger. This area of discolored bone also seemed to be slightly raised above the surface of the adjoining healthy bone. The area of diseased bone was chiseled away in every direction and as far inward as the inner table of the bone. It was not deemed necessary to open into the antrum mastoideum. Various chip-pings and large pieces of bone were saved for microscopic examination. The patient never had a particle of pain after coming out of the anesthetic and made an uninterrupted and rapid recovery.

The pathologist of Providence Hospital, Dr. R. A. Hamilton, made the following report on the specimens of bone placed in his hands:

"Macroscopic examination of specimen. The bone is redder and much softer than normal, some of the pieces being easily fractured by pressure of the fingers.

"Microscopic examination (after decalcification) shows increased production of connective tissue and round cell infiltration, the character and morphology of the cells excluding malignancy. In some of the sections there are areas where the bone is undergoing absorption, and, in others, there seems to be a direct formation of new bone. The microscopic picture is one commonly met with in rarefying osteitis."