Notes on a Case of "Brodie's Abscess" or "Circumscribed Abscess" of the Lower End of the Left Femur

1921

The patient, R.A., a boy of fifteen years, was admitted to Dr. Cooper's private hospital, Eltham, complaining of pain in the lower end of the left femur. The pain was "boring" in character, worse at night, and latterly prevented him from getting sleep.

He gave the following history :—Was an in-patient of the Wanganui Hospital for about twelve months (1916–1917), with an acute osteo-myelitis of the left femur, in the lower third of the shaft. He had a metastasis in the right humerus and still has a sinus there. No sinus was present over the femur—only a four-inch operation scar on its outer aspect, about a hand'sbreath above the knee-joint.

While under observation here he ran no temperature, and his pulse was normal. The examination showed definite tenderness on palpation all round the lower end of the left femur, and the shaft was expanded and thickened in the same situation. Part of this expansion may have been due to the previous osteo-myelitis, but as the pain was becoming much worse an abscess of the bone was suspected. There was no discolouration of the skin, and no history of a recent injury.

Operation under general anæsthesia (C.E. and open ether).—A four-inch incision, a hand'sbreadth above the knee-joint, was made on the outer aspect of the limb over the site of the former operation, and the scar excised. There was some little difficulty in defining the interval between the vastus externus and the biceps, owing to the scar of the previous operation. The muscles being retracted, the tissues near the bone were very œdematous, and a thin serous fluid exuded from the periosteum when it was incised. There was no subperiosteal abscess, and the periosteum separated easily. With a gouge the medullary cavity was opened over the site of the greatest œdema, and a circular opening, half an inch in diameter, made down into the medulla of the bone. There was free oozing of blood-stained fluid through this cavity, but no pus was found. On introducing a probe bent at a right angle, it could be easily passed down the medulla towards the epiphyseal line, but its upward passage was barred by a bridge of sclerosed bone. Bearing in mind that localised abscess is usually surrounded by dense bone, another opening was then made into the shaft of the bone, about one inch above the previous one. A small circumscribed abscess was opened, which contained about half a drachm of thick, yellowish pus. The abscess cavity was completely surrounded by dense, sclerosed bone, and lined with a thin granulation tissue, which was removed by curetting. No sequestrum was found in the cavity. The abscess cavity was swabbed out with ungt. bipp. and packed with iodoform gauze, and the wound closed in the usual manner below the drain. When the patient was seen later on in the day, he said that he was absolutely free from pain. No X-ray plate was taken before the operation.

This case illustrates well the condition of relapsing osteomyelitis, with chronic abscess formation, and shows how easy it would be to miss a small abscess, unless the bone

suspected is explored in all directions.

I have to thank Dr. H. A. Cooper, of Eltham, who performed the operation, for permission to publish the notes of this case.

Dr. Cooper adds the following points of interest:—(1) The sudden exacerbation of the patient's symptoms after the long quiescent period of five years. (2) The small amount of pus in its confined space, giving rise to such acute symptoms. (3) The complete obliteration of the medullary canal, with a considerable increase in the girth of the bone. (4) The importance of carefully exploring the bone when symptoms point to a bone infection, more especially when an acute periostitis is exposed. In this particular case the abscess could quite easily have been missed, the case diagnosed as one of acute localised periostitis, and the patient sent back to bed without any relief from his symptoms. When a probe could not be passed up the shaft of the femur, in the medullary canal, it was surmised that the opening had been made below the abscess. The second opening proved this to be so. (5) The almost immediate relief of pain when the abscess was opened.

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