PERIARTICULAR CALCIFICATION OF THE ANKLE

Report of a Case

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A woman of fifty-eight had suffered for four years from severe attacks of pain and swelling of the left knee and ankle, worse at night. There was a cystic swelling on the lateral side of the ankle; clinically and radiologically the knee was osteoarthritis.

Radiographs showed an irregular calcified mass below the left lateral malleolus (Fig. 1). There was no evidence of calcification in the gall bladder, kidneys or elsewhere. The serum uric acid was 5.6 milligrams per 100 millilitres. The serum calcium and phosphorus were normal.

At biopsy an irregular white mass 3.5 centimetres in diameter was removed from the ankle. It was composed partly of fat and partly of white material chiefly confined to the capsular tissues but protruding into the ankle joint. The articular cartilage was normal. Microscopic examination of the tissue (Figs. 2 and 3) revealed large deposits of micro-

![Figure 1](image1)
![Figure 2](image2)
![Figure 3](image3)

Figure 1—Radiograph showing the periarticular calcification. Figure 2—Photomicrograph showing part of calcified deposit in the capsular tissue of the left ankle. Paraffin section. Some of the material has a finely granular appearance, and some larger crystalline deposits are present. (×165.) Figure 3—The same field viewed in polarised light, showing the birefringent nature of the crystalline material. (×165.) crystalline material which, on chemical analysis, gave positive tests for calcium and phosphate. The test for uric acid was negative. Under polarised light the crystalline material was birefringent.

Comment—The calcium deposit in this case was confined to the capsular tissues outside the joint, and this justifies its classification as “periarticular calcification.” The absence of multiple joint involvement and of calcification of the hyaline cartilage distinguishes this case from “pseudogout.”

It has also to be distinguished from heterotopic ossification, in which bone is formed in fibrous tissue, and also from extraskeletal osteochondromata, in which a large proportion of cartilage is often present.

The cause of this condition is unknown.

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