In 1960 Freehafer reported a case of osteochondritis dissecans occurring as a complication of Legg-Calvé-Perthes' disease. He reviewed the literature and found only six other cases. We report a patient who has been followed for seven years.

**CASE REPORT**

The patient, a white boy aged twelve years at the time of his first attendance, was first seen at the Shriners Hospital for Crippled Children, Winnipeg Unit, in June 1954. The chief complaint was of a painless right-sided limp for three months. There was no history of injury or acute illness. On examination a limp was evident on the right. There was painless limitation of movement of the right hip at the extremes of abduction, adduction, and medial and lateral rotation, and slight shortening. The Trendelenburg test was negative. Radiographs showed flattening and irregularity of the right femoral head with slight fragmentation (Fig. 1). These findings were ascribed to Perthes' disease. The erythrocyte sedimentation rate was 9 millimetres in the first hour and the tuberculin skin test was negative at dilutions of 1/10,000 and 1 1,000.

Treatment was by bed rest with skin traction to the right leg. After four months the patient was fitted with an ischial-bearing walking caliper.

**FIG. 1**
Initial radiographs at the age of 12 years showing sclerosis, irregularity, flattening, and early fragmentation of the femoral head.

**FIG. 2**
Four months later: progression of the process with the formation of a distinct fragment.
Twenty-two months after onset. Radiographs show development of central fragment, seen better in the lateral view.

Six years after onset, showing persistence of the fragment in the centre of the articular surface of the femoral head and no evidence of union to the remainder of the head. Note the corresponding depression in the articular surface of the acetabulum.
Progress—Serial radiographs showed increasing broadening of the femoral neck with flattening and fragmentation of the femoral head, with later evidence of revascularisation and healing. The impression of the formation of a distinct fragment was noted (Fig. 2). Scanographs a year after treatment was begun showed half an inch of shortening on the right side. Six months later the radiographs showed improvement in the appearance of the head, but confirmed the fact that a large piece of the centre of the fragmented weight-bearing part was failing to unite with the remainder of the head (Fig. 3). This was interpreted as an area of osteochondritis dissecans.

The use of a splint was continued for a total of four years. The patient then had a full range of painless movement at the right hip. Radiographs showed healing of the Perthes’ disease and appeared to show healing of the area of osteochondritis dissecans. The patient had little difficulty in returning to normal activities.

When last seen in 1960 at the age of eighteen and a half the patient still had a full range of movement of the hips without pain and less than a quarter of an inch of shortening on the right. He was working as a waiter and had been free from symptoms except for three or four episodes of momentary ‘‘catching’’ in the hip, without actual locking or pain. Radiographs showed broadening and irregularity of the femoral head with broadening and shortening of the femoral neck. In addition, a large loose fragment was noted close to a depressed area in the centre of the articular surface of the femoral head and a corresponding area of the acetabulum (Fig. 4). This represents an unhealed area of osteochondritis dissecans.

SUMMARY AND COMMENT

A case of osteochondritis dissecans complicating Legg-Calvè-Perthes’ disease is reported. Despite four years of conservative treatment in an ischial-bearing caliper a part of the fragmented femoral head failed to unite with the rest of the epiphysis and has persisted as an intra-articular loose body.

Freehafer (1960) listed the indications for surgical removal of this fragment in such cases: 1) persisting symptoms; 2) dislocation of the loose fragment into the joint with secondary arthritic changes inevitable; 3) a mechanical block to movement of the hip.

Since our patient had a relatively symptomless hip with a full range of movement, surgical removal of the loose body was not advised. The prognosis for this hip is nevertheless guarded, and surgery can be reserved for the above indications or for reconstructive procedures should they be required in the future.

REFERENCE