

## Idiopathic Avascular Necrosis of the Right Hip Masquerading as a Painful Right Knee in an Adult

The Editor,

Sir,

Although well documented in children, knee pain can also present as referred pain from the hip in the adult population (1, 2). We report a case of avascular necrosis (AVN) of an elderly patient who was misdiagnosed for decades and who re-presented on several occasions to several physicians with pains in the right knee. No aetiological factors were identified.

A 70-year old male patient presented to the Emergency Room with a one-week history of abdominal pains and no other gastrointestinal symptoms. The only significant past history was pains in the right knee for 15 years. There was no history of trauma, any collagen vascular disease, no alcohol or steroid use. Furthermore, there was no history of sickle cell disease or diabetes mellitus. This patient had visited several doctors for the same complaint over a number of years. His abdominal examination was normal but because of the severity of the pains, he was investigated with computed tomography (CT). Multidetector computed tomography (MDCT) of the abdomen was unremarkable but the scout images identified patchy sclerosis involving the right femoral head suggesting possible AVN. An X-ray of his right hip demonstrated patchy sclerosis of the right femoral head (Fig. 1a), areas of subchondral collapse and flattening with modelling deformity. There was also narrowing of the joint

space likely due to secondary osteoarthritis (Fig. 1b). These findings were consistent with stage 5 AVN of the femoral head, Steinberg classification.

Radiographs of the right knee (Fig. 2) were unremarkable, affording no explanation for his localized pains. The patient returned to the Orthopaedic Clinic two weeks



Fig 2: (A) Anterior-posterior view of right knee joint (normal) and (B) lateral view.



Fig 1: (A) Anteroposterior and (B) lateral views showing the right femoral head with mottling, sclerosis and deformity. There is also joint space narrowing.

later for review. On his return, he ambulated well with a cane and was discharged with advice for further physiotherapy follow-up and analgesia, as he was reluctant to undergo definitive treatment.

This case illustrates a phenomenon of idiopathic AVN of the hip masquerading as a painful right knee in an adult. Besides the occurrence of referred pain, an additional reason why hip pathologies may be perceived as knee pain is due to the superficial location of the knee joint when compared to the more deeply situated hip joint (2).

Magnetic resonance imaging is the most sensitive method of diagnosing early AVN, followed by scintigraphy. Computed tomography is useful in providing bony detail. Plain radiography begins to demonstrate changes only after the pathology has been established for several months. In this case, the process was so long-standing that plain films were diagnostic and were also capable of staging the disease. Radiographic imaging is inexpensive, quick, and non-invasive and can easily confirm a diagnosis in chronic cases (2, 3).

It is imperative to be cognizant that a knee complaint will require a meticulous examination of the hip as well. Finally, prompt diagnosis and definitive treatment are

paramount to arrest the progression of premature joint destruction.

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