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Charcot osteoarthropathy of the knee: presentation, diagnosis and management

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Charcot knee is regarded as a rare presentation of Charcot osteoarthropathy. We describe 9 patients who presented with hot, swollen and painful knee. All but one had Charcot feet. There were 6 male and 3 female patients, mean age was  $45 \pm 8.3$  years [mean  $\pm$  SD] and mean duration of diabetes was  $28 \pm 5.1$  years. There were 7 with type 1 diabetes and 2 with type 2 diabetes.

Radiographs showed disorganisation and fragmentation of the knee joint (1), fracture of tibial plateau (2), femoral condyle (1), fracture of the patella (1) but radiographs were initially unremarkable in four. However, the MRI scan was abnormal and showed osteochondral abnormalities of the femoral condyle (1), stress fracture and marrow oedema of the proximal tibia and 1<sup>st</sup> femoral condyle (1), tibial plateau and femoral condyle osteochondral abnormalities (2). All patients were treated with non-weight-bearing and plaster casting, together with crutches and wheel chair and then progressing to knee bracing and mobilisation. Pain remitted in all patients with considerable resolution of swelling. One patient had a successful knee replacement.

A swollen knee in patients with Charcot feet may indicate Charcot osteoarthropathy and should be investigated with radiographs and if normal with MRI, to allow early diagnosis and timely treatment.