

# Osteoarthritis

## Osteoarthritis

OA commonly affects the knee joint. The prevalence of symptomatic knee OA in adults aged 60 years or older is approximately 10% in men and 13% in women. OA can be either primary (idiopathic) or secondary. Patients with primary OA tend to have other joints involved and may have a family history of arthritis. Secondary OA may occur following a previous intra-articular fracture, meniscectomy, ligament injury, osteonecrosis or in a neuropathic joint. Clinical features Patients usually describe pain, stiffness and swelling. Pain is usually worse with loading and with activity. Patellofemoral OA pain is worse on stairs and rising from a seated position. The natural history of OA is of a gradual steady deterioration from episodes of short-lived flare-ups progressing to constant pain that often affects sleep. Mobility deteriorates, walking distance reduces and walking aids are frequently required. In severe cases, patients may become dependent on a wheelchair or become housebound. Examination reveals an antalgic gait in which the patient limps, spending a short time on the painful limb, and moves their centre of gravity to minimise the weight they are taking through this limb. In knee OA the deformity is usually varus, with bone loss on the medial side. Valgus deformity is more common in women, in rheumatoid arthritis and after lateral meniscectomy. The joint appears bulky owing to effusion, synovial thickening and growth of osteophytes. An effusion is frequently present and movement, particularly extension, is restricted. Crepitus can be both palpable and audible. Investigation Plain radiographs are the investigation of choice with typical features of joint space narrowing, subchondral sclerosis, osteophytes and subchondral cysts (Figure 40.3). These are best performed weight-bearing to show the extent of joint narrowing. MRI scan is not routinely required prior to knee replacement. Treatment Non-operative methods are the first line of treatment. Patients should be encouraged to lose weight, undertake regular exercise to prevent joint stiffness and use anti-inflammatory medication. Walking aids, such as a stick, orthotics and off-loader braces, may be beneficial. Intra-articular steroid injections can be used to settle an arthritic flare-up but are no longer recommended as a long-term solution because of concerns about infection and causing further joint cartilage damage. Surgical options include osteotomy, partial knee replacement, TKR or arthrodesis. Summary box 40.3 Knee OA

Figure 40.3 Anteroposterior (a) and lateral (b) radiographs of osteoarthritis of the knee. More common in females Can be primary (idiopathic) or secondary (e.g. post traumatic) The main symptom is pain made worse by use Examination reveals swelling and a reduced range of motion with or without deformity The key radiographic features are joint space narrowing, subchondral sclerosis and cysts, and osteophytes Treatment is non-operative initially. Knee replacement is reserved for end-stage disease

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