

Rheumatology

Introduction

- Musculoskeletal problems are extremely common accounting for 1 in 6 GP consultations
- Pain is the most common presenting symptom

Terminology

- **Arthritis** is the term used when there is objective evidence of joint inflammation (deformity, swelling or an effusion)
- **Pain** in or around a joint may arise from the joint itself or from structures surrounding it
- **Enthesitis** is inflammation at the site of attachment of ligaments, tendons and joint capsules

Rheumatological Investigations

- **FBC/ESR/CRP:** monitors disease activity, the effects of drug treatment, excludes factors such as dietary deficiency and more rarely excludes a primary haematological malignancy which may mimic various forms of arthritis; the inflammatory arthritides are associated with a normochromic normocytic anaemia

- Remember that macrocytosis and bone marrow suppression are well recognised complications of methotrexate and azathioprine (commonly used in patients with rheumatoid and psoriatic arthritis)
- Platelet abnormalities are often seen in rheumatic disorders
- The ESR and CRP are commonly raised in the inflammatory arthritides
- Liver function may be adversely affected by many of the drugs used to treat rheumatic diseases, notably methotrexate, azathioprine, cyclophosphamide and sulphasalazine (baseline monitoring is required and intermittent testing during treatment)
- Abnormal renal function may also be a component of rheumatic disease e.g. the deposition associated with uric acid crystals in the kidneys of patients with gout
- Bone calcium is normal in osteoporosis/reduced in osteomalacia. A raised alkaline phosphatase is the key feature of Paget's disease reflecting increased bone turnover
- Auto-antibodies (defined as immunoglobulins which bind to self antigens) are often expressed in patients with rheumatic disease
- Rheumatoid factor; positive in about 70% of patients with Rheumatoid Arthritis as well as some other disorders including SLE and Sjogren's syndrome
- Antinuclear antibodies are most helpful in detecting SLE (greater than 95%) and Sjogren's syndrome (80%)
- Antibodies to DNA and phospholipid; useful for detection of SLE and those with associated renal disease
- Plain radiographs: useful for both establishing the diagnosis and monitoring progress, e.g. in psoriatic arthritis, affecting the hand
- Bone scan: used to highlight hot spots in active disease, again allows monitoring of response to treatment
- MRI: helps to exclude problems amenable to direct surgical intervention such as meniscal problems within the knee or rotator cuff tears within the shoulder
- Joint aspiration: mainly used in the diagnosis of gout, pseudogout and to exclude septic arthritis; aspirate is sent for histology, microbiology +/- cytology

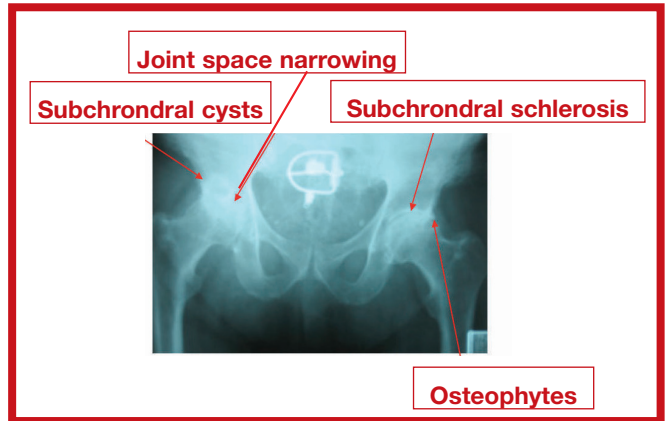
Negatively birefringent crystals are seen in gout, positively birefringent crystals in pseudo gout

- **DEXA scan:** accurately and precisely measures bone mineral density, the main determinant of an osteoporotic person's risk of fracture

History!

- **Joint symptoms**
 - pain
 - onset
 - distribution/pattern
 - time of day
 - swelling
 - loss of function
- **Extra-articular features**
 - rashes
 - dry/red eyes
 - mouth/genital ulcers
 - diarrhoea
- **Past history**
 - psoriasis
 - trauma
- **Family history**
- **Social history**
 - occupation
 - lifestyle
- **Drug history**
 - current & previous Rx

Investigation



Plain radiograph (AP view) illustrating medial compartment osteoarthritis of the knee

Common Conditions

Osteoarthritis

- Commonest condition to affect the joints
- Marked female preponderance
- Uncommon in Black and Asian patients

Cause

- The exact cause of the condition is unclear
- Usually primary
- May be secondary to
 - Trauma
 - Haemochromatosis
 - Recurrent haemarthrosis in haemophilia
 - Avascular necrosis
 - Sickle cell disease



Symptoms and Signs



- Pain, particularly on movement, worse at the end of the day
- Stiffness
- Joint effusions
- Heberden's nodes (DIPJs)
- Joint deformity
- Crepitus
- Antalgic gait

Management



Conservative

- Lose weight
- Keep active
- Physiotherapy
- Walking aids

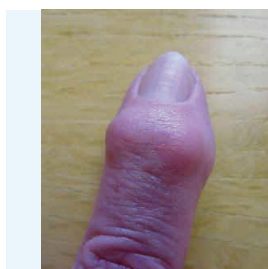
Medical

- Paracetamol
- NSAIDs
- Steroid injections

Surgical

- Arthroscopy e.g. of knee, may relieve symptoms, conflicting evidence
- Total joint replacement
- Indications for joint replacement include
 - Night pain
 - Pain unrelieved by analgesics
 - Significant limitation of activities of daily living

Commonly impacts upon distal interphalangeal joint (DIPJ)



Heberden's Node