

Chronic auto-immune disorder resulting in a symmetrical deforming polyarthropathy and various other extra-articular features.

Rheumatoid arthritis hand examination signs

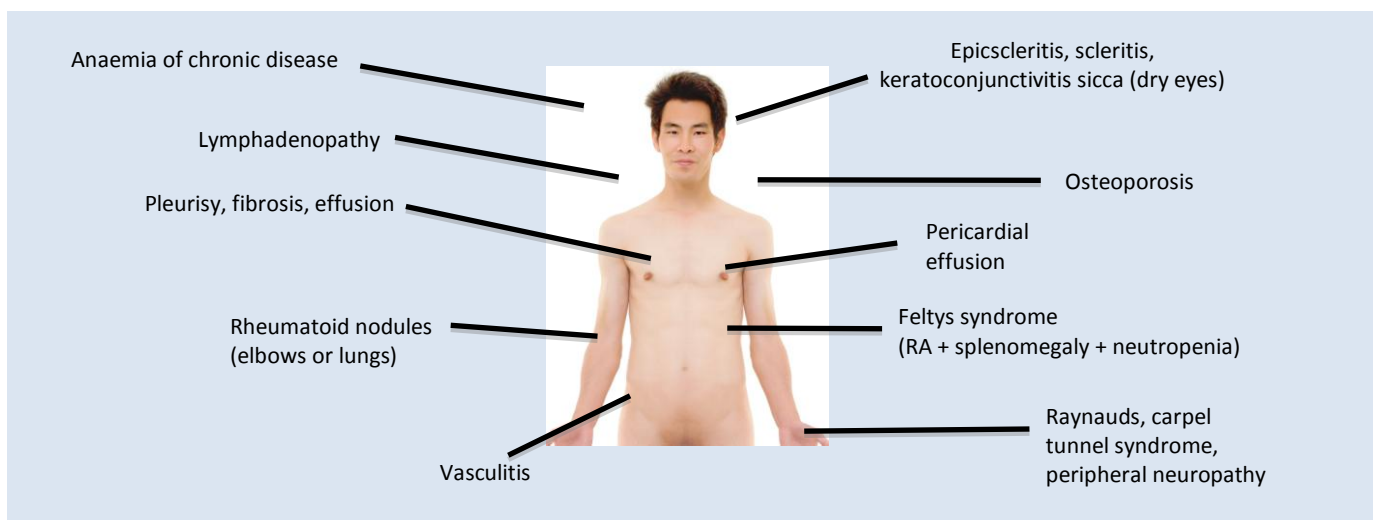
- Synovitis (acute/ chronic)
- Joint deformities
 - Loss of knuckle guttering
 - Swan neck deformity (PIP hyperextension + DIP flexion)
 - Bouttonniere deformity (PIP flexion + DIP hyperextension)
 - Z-shaped thumb (IP hyperextension + MCP flexion)
 - Ulnar deviation
 - Palmar subluxation of MCPs
- Others e.g. palmar erythema, small muscle wasting, reduced range of movement, carpal tunnel syndrome signs

Risk Factors

- Female gender
- Age 30-40
- Genetics: HLA DR4 and HLA DR1
- Smoking

Clinical features

- Polyarthritits
 - Morning stiffness
 - Tender, erythematous inflamed joints
 - Usually symmetrical
 - Joint deformities (above)
 - Any synovial joint can be affected
 - Mostly affects small joints (hands, feet, cervical spine)
 - MCP joints most commonly affected; DIP joints rarely affected
 - Cervical spine – odontoid peg erosion can result in fracture and atlantoaxial subluxation
- Extra-articular features:



Investigations

- Bloods
 - Raised inflammatory markers (ESR, CRP)
 - Rheumatoid factor – autoantibody to Fc portion of IgG
 - Anti-cyclic citrullinated peptide (CCP)
- X-Rays (see below)

Management

- NSAIDs (e.g. ibuprofen, naproxen, diclofenac): for symptomatic relief (consider gastro-protection with PPI)
- Steroids: short course prednisolone at diagnosis to induce remission
- Disease Modifying Anti-Rheumatic Drug (DMARD) therapy (e.g. methotrexate, sulfasalazine, hydroxychloroquine): combination of two commenced early to prevent long-term progression
- TNF α -blockers (e.g. etanercept, infliximab): can halt or even reverse disease process; offered to patients who are unresponsive to 2 combinations of DMARDs
- Other therapies
 - Surgery: can improve mobility and reduce pain in patients with deformities
 - Physiotherapy
 - Occupational therapists: to help activities of daily living

Prednisolone-
Induces remission

2 DMARDs –
Maintain remission

NSAIDs –
Symptomatic relief



Boutonnière Deformity: PIP flexion + DIP hyperextension



Classic features of rheumatoid arthritis on X-Ray:

- Loss of joint space
- Soft tissue swelling
- Periarticular osteopenia
- Marginal erosions



Rheumatoid hand: joint swelling, ulnar deviation, palmar subluxation of MCPs, Z-shaped thumb