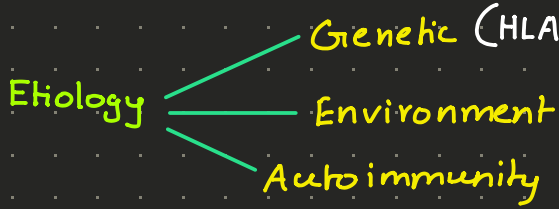


# Rheumatoid arthritis

- Most common rheumatic inflammatory arthritis



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## Pathogenesis



C/F - F > M 3:1, 30-50 yrs usually

## Onset

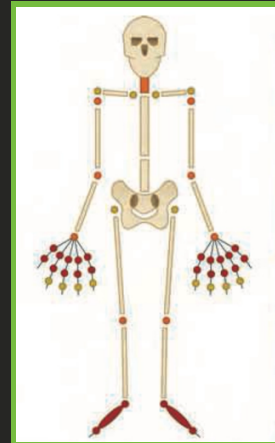
- Insidious** - Malaise, fatigue, anorexia, weakness, musculoskeletal pain
- Acute onset** - Morning stiffness, polyarthritides, pitting edema  
More in old age
- Palindromic onset** - Relapsing and remitting episode
- Monarticular** - Rare

## Articular manifestations

- Small joints affected first
- Pitting oedema over dorsum (Boxing glove appearance)
- Pain, swelling, stiffness dominating in mornings lasting >1hr is characteristic
- Distal interphalangeal joint always spared. If involved, consider osteoarthritis

## Deformities - Ulnar deviation

- Carpal tunnel syndrome
- Swan neck deformity
- Boutanairs deformity
- Gamekeepers thumb
- Z deformity
- Bow string sign
- Cock up deformity
- Hammer toes
- Baker's cyst



**Rheumatoid nodules** - Subcutaneous, typically benign masses on extensor aspect 2mm to 5cm, firm, non tender

## Investigations

- Serology** - Rheumatoid factor  
Anti-citrullinated protein antibody (ACPA)

ii) Acute inflammation markers - Anemia +ve  
Thrombocytosis +ve  
ESR, CRP ↑  
WBC ↓/↑/normal

iii) Other autoantibodies - Anti nuclear antibodies  
Anti neutrophilic cytoplasmic antibodies

iv) Radiography - Symmetrical involvement  
Juxta articular osteoporosis  
Soft tissue swelling  
Bone erosion  
Narrow joint space

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v) USG, MRI

vi) Synovial fluid analysis

vii) Test latent TB

## Management

### General measures

- Rest and splinting
- Physiotherapy
- Smoking cessation, screen osteoporosis

### Medical therapy

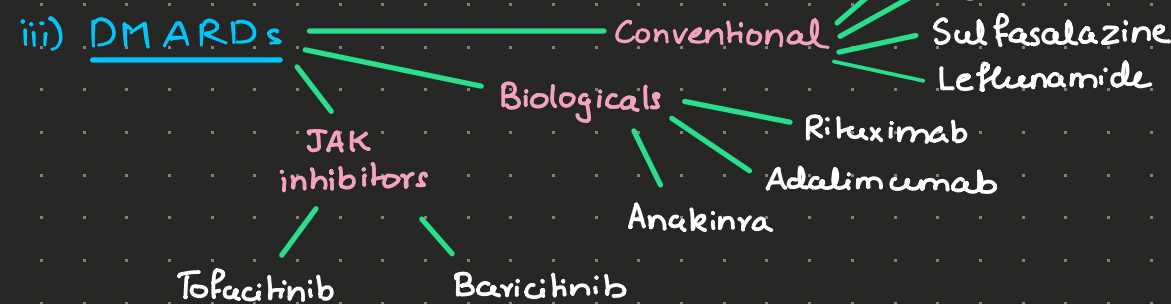
i) NSAIDs - Symptomatic relief  
should not be used chronically

ii) Glucocorticoids - Symptomatic improvement

eg: Prednisolone

Bridge therapy (glucocorticoid till inflammation gone, then taper till DMARD takes effect)

Pulse therapy



Immunosuppressants - Cyclophosphamide  
Azathioprine

Physiotherapy, rehab, assistive device

**TABLE 9.10:** American College of Rheumatology (ACR)/European League against Rheumatism (EULAR) classification criteria for rheumatoid arthritis, 2010.

| Features                                                                                | Score |
|-----------------------------------------------------------------------------------------|-------|
| <b>A. Joint involvement</b>                                                             |       |
| ➤ 1 large joint (shoulder, elbow, hip, knee, ankle)                                     | 0     |
| ➤ 2-10 large joints                                                                     | 1     |
| ➤ 1-3 small joints (MCP, PIP, thumb IP, MTP, wrists) + involvement of large joints      | 2     |
| ➤ 4-10 small joints + involvement of large joints                                       | 3     |
| ➤ >10 joints (at least 1 small joint)                                                   | 5     |
| <b>B. Serology (at least one test result is needed for classification)</b>              |       |
| ➤ Negative RF and negative ACPA                                                         | 0     |
| ➤ Low-positive RF or low-positive ACPA ( $\leq 3$ times ULN)                            | 2     |
| ➤ High-positive RF or high-positive ACPA ( $\geq 3$ times ULN)                          | 3     |
| <b>C. Acute-phase reactants (at least one test result is needed for classification)</b> |       |
| ➤ Normal CRP and normal ESR                                                             | 0     |
| ➤ Abnormal CRP or abnormal ESR                                                          | 1     |
| <b>D. Duration of symptoms</b>                                                          |       |
| ➤ < 6 weeks                                                                             | 0     |
| ➤ $\geq 6$ weeks                                                                        | 1     |

Score > 6 for diagnosis

Surgery - Synovectomy  
Osteotomy  
Arthrodesis  
Excision arthroplasty  
Joint replacement