

# Seronegative Spondylo arthropathies

- Involvement of the sacroiliac joints, s, and the spine is the central feature of seronegative spondyloarthropathies

- A 32-year-old man presents with back pain with prominent stiffness lasting several hours, in addition to a painful swollen left ankle. The examination shows limited motion of the spine and a left Achilles tendinitis.

# HLA-B27 associated spondyloarthropathies

- Ankylosing spondylitis.
- Reactive arthritis.
- CIBD-chronic inflammatory bowel dis-  
associated spondyloarthropathy.
- Psoriatic spondyloarthritis.

# Common features of spondylarthropathies

1. Familial and Association with **HLA-B27**.
2. Involvement of the **spine**.
3. **Asymmetrical** peripheral joint involvement.
4. **Enthesitis**.
5. Extra-articular signs.
6. **Negative** rheumatoid factor.

# Ankylosing Spondylitis

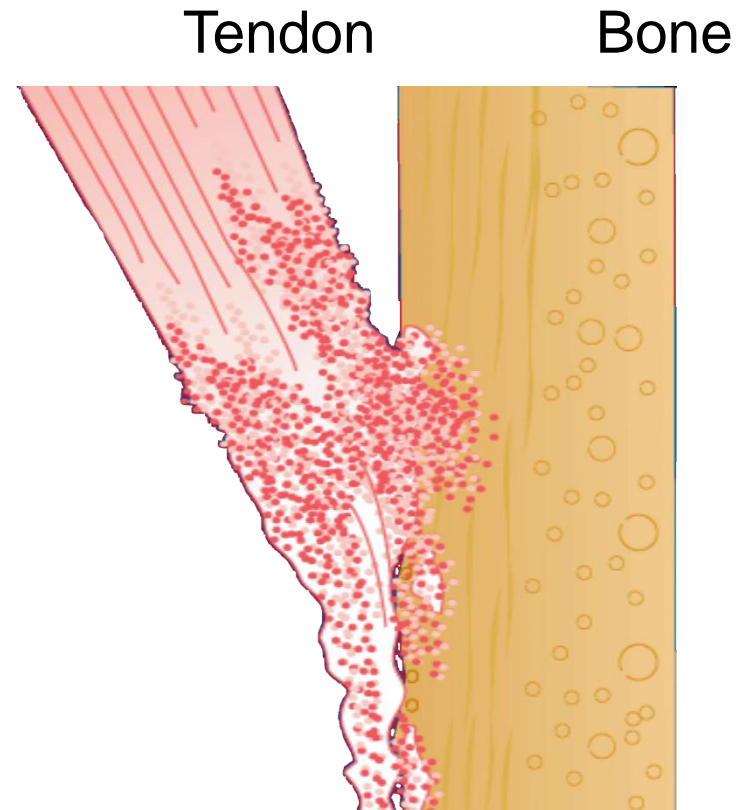
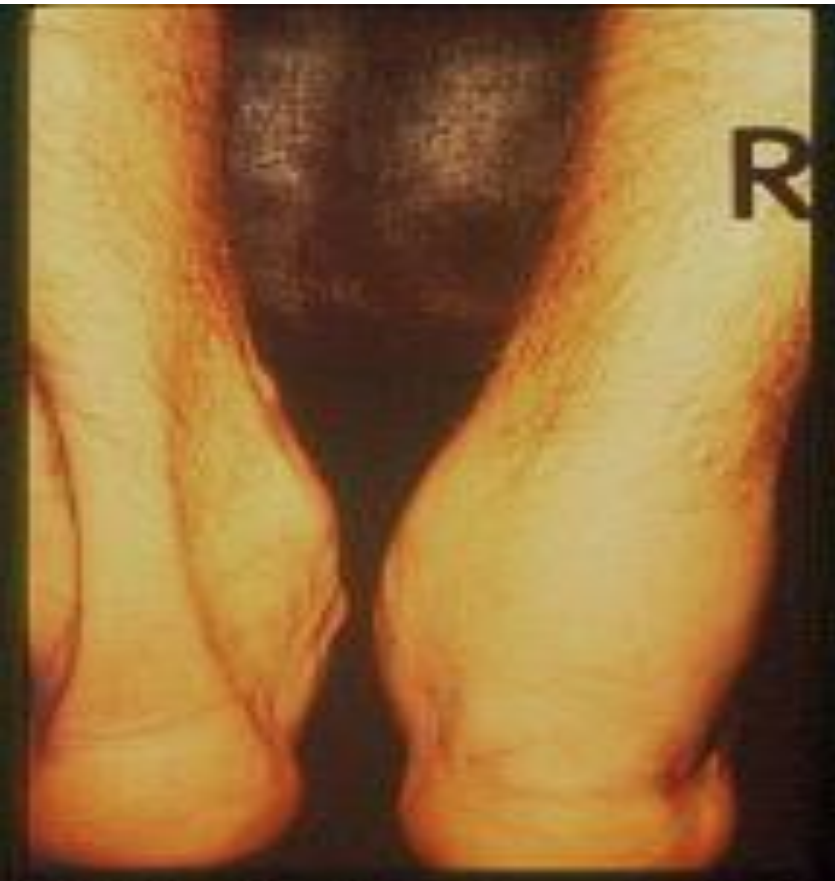
- Commonest of spondyloarthropathies
  - Prevalence variable 0.2 -0.5%.
  - Male>female.
  - 96% are HLA-B27 +ve.

HLA = human leucocyte antigen.

# Clinical signs in AS

- Spinal involvement
  - Decreased lumbar spine mobility
  - Then cervical spine.
- Peripheral arthritis
  - Hips, shoulders, knees
- Achilles tendonitis, dactylitis
- Uveitis

# Enthesitis



inflammation at the site of a ligament or tendon insertion in the bone

Enthesitis of the achiles tendon



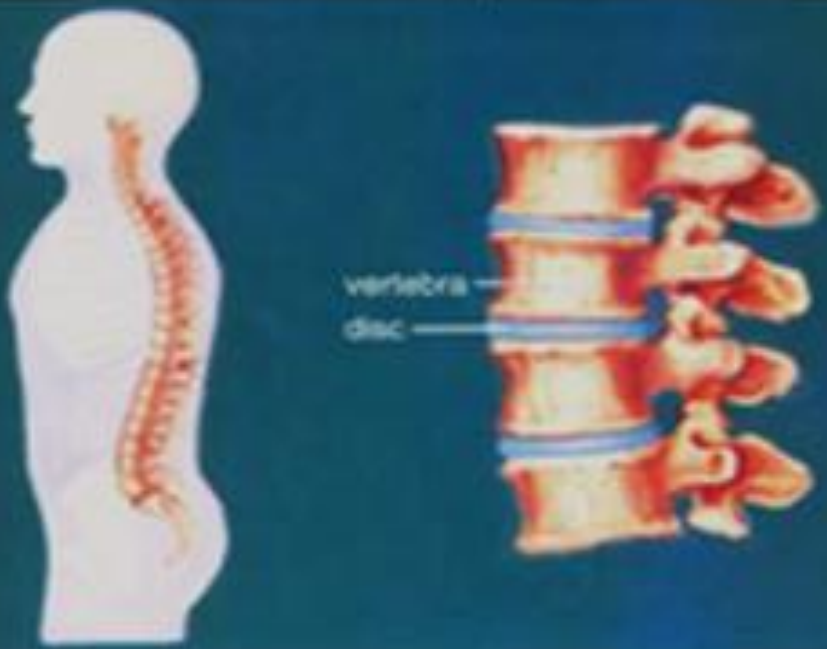
## **dactylitis**

inflammation of a whole 2<sup>nd</sup> and 3<sup>rd</sup> finger.



- **Enthesitis** : is inflammation at the site of a ligament or tendon insertion into bone.
- **Dactylitis**: inflammation of a whole finger or toe.

**A** The Normal Spine



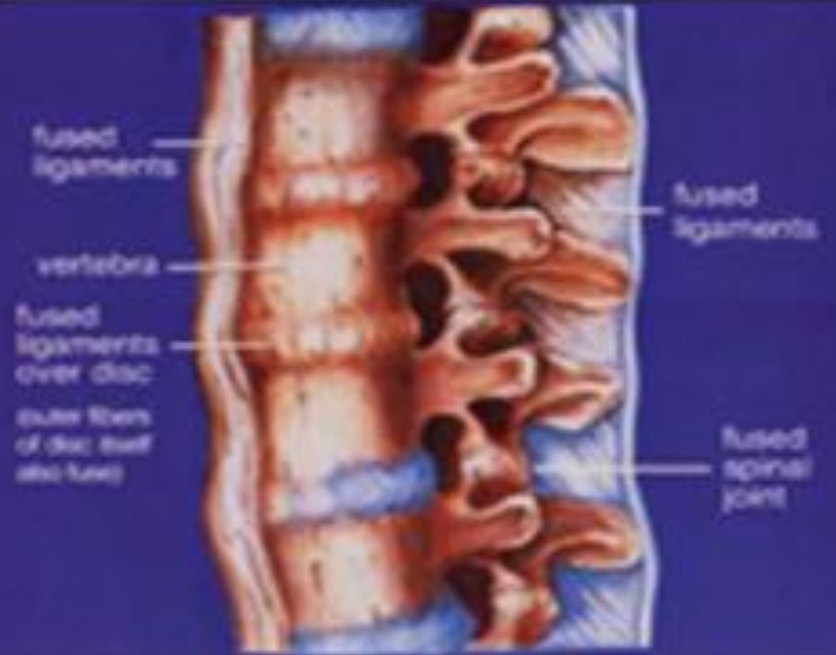
**B** Normal Spine—Ligaments Attached



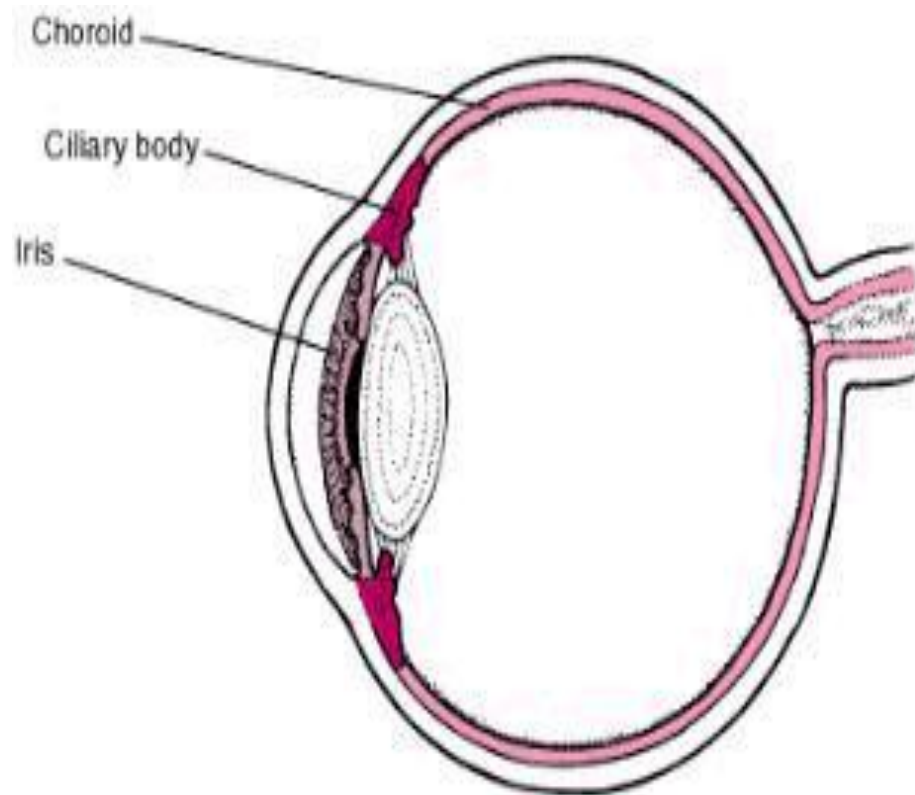
**C** Inflammation



**D** Fusion (Ankylosis)









© ACR

# What is inflammatory backpain?

## History

Back pain  $> 3$  months that has four of the following characteristics:

1. improved by exercise
2. not relieved by rest
3. insidious onset
4. night pain
5. age at onset  $< 45$

Good response of back pain to NSAID

Family history of spondyloarthritis

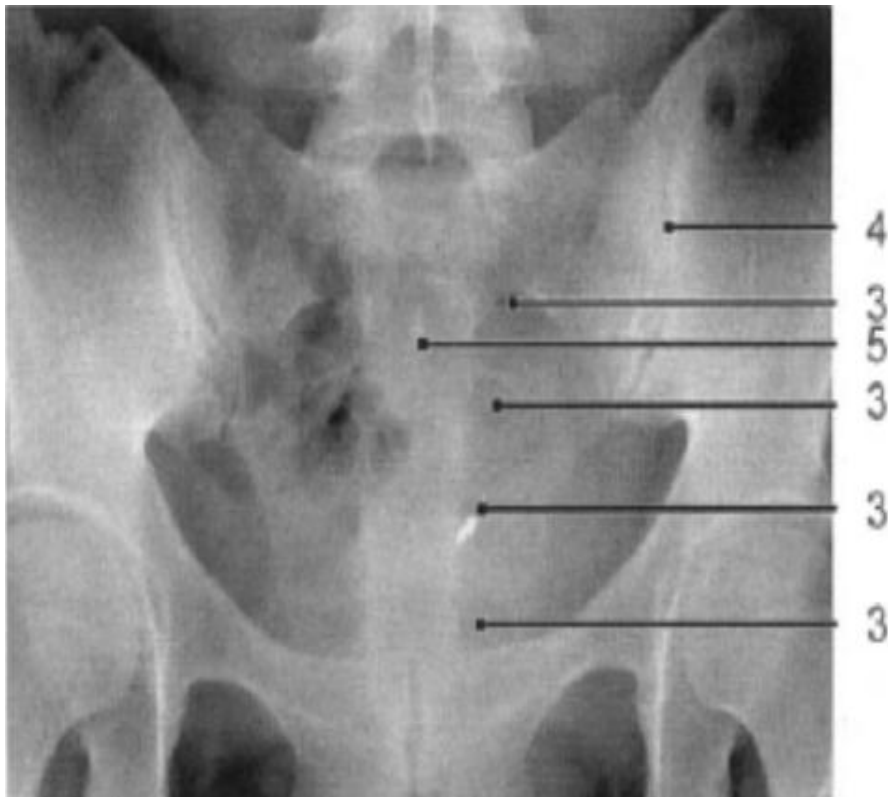
History of inflammatory bowel disease

# Diagnosis

- Inflammatory back pain.
- Limitation of spinal movement in all planes.
- Early morning stiffness in the back.
- Characteristic enthesitis-
- extra articular e. g uveitis.
- Radiological evidence of sacroileitis.



## normal sacroiliac joints



- 3. Intervertebral foramen
- 4. Sacroiliac joint
- 5. Spinous process

AS with early bilateral sacroiliitis. There is widening and irregularity of the SI joints with subchondral sclerosis.





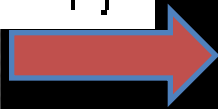
Where is the sacroiliac joints



Fusion due to chronic recurrent inflammation and local calcification



Syndesmophyte



Syndesmophytes

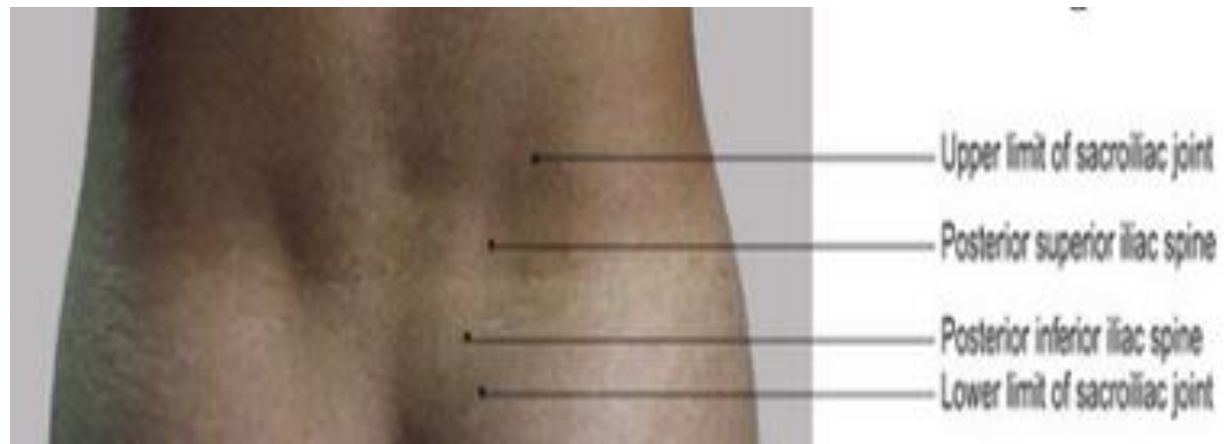
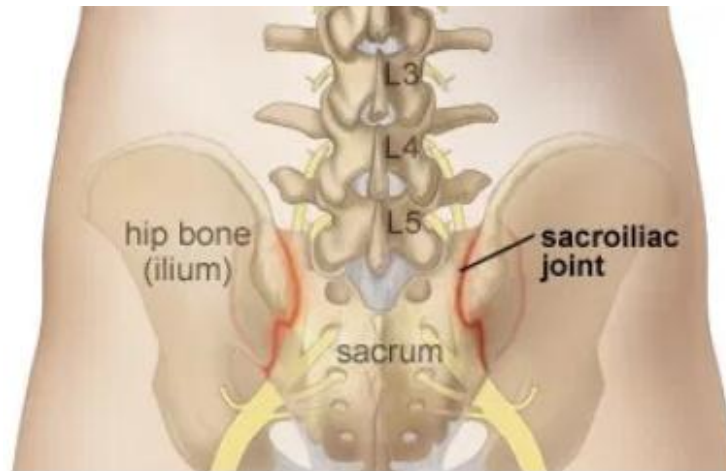
Bamboo spine

## How you differentiate Inflammatory vs Mechanical Back Pain?

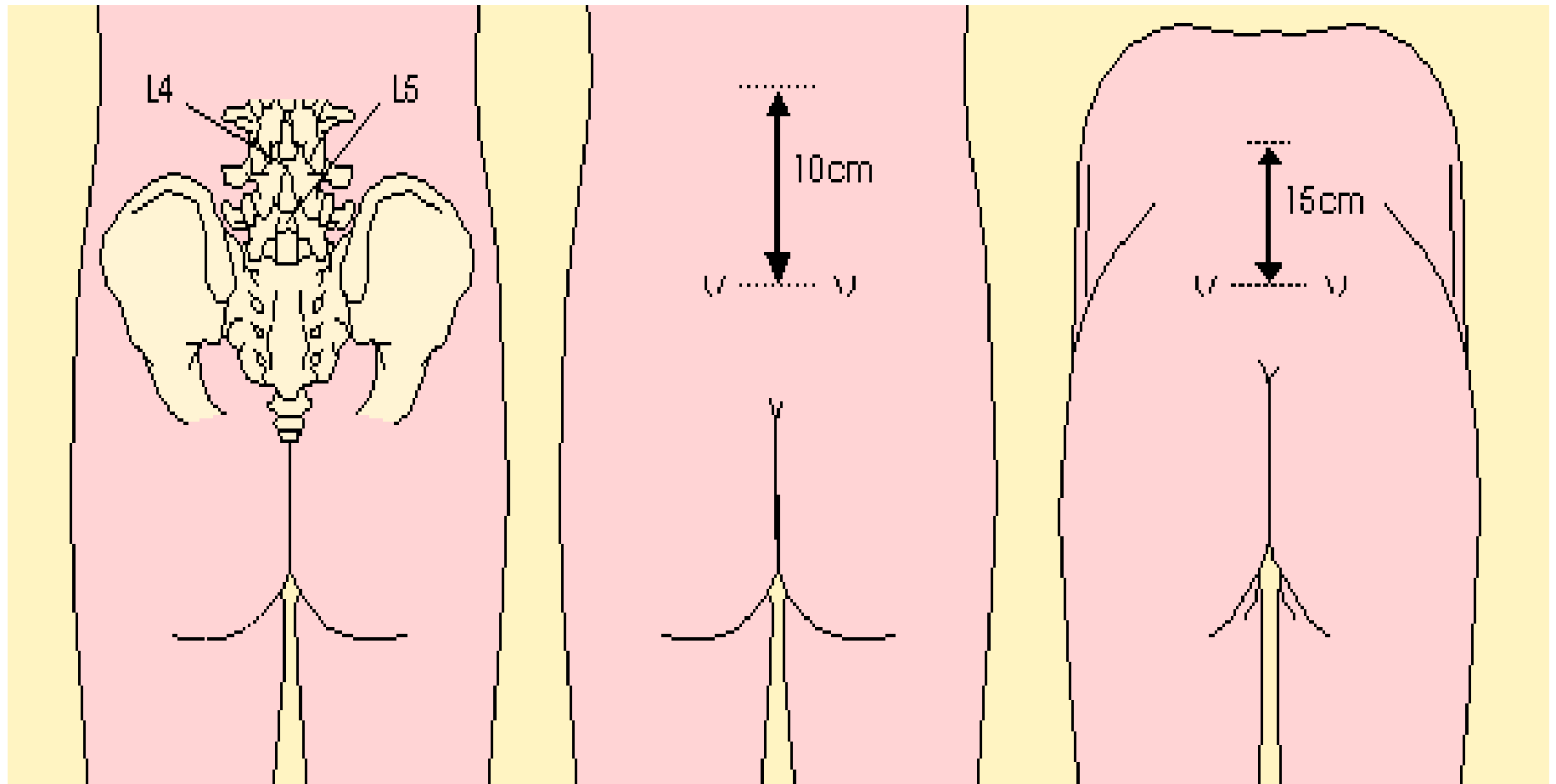
Inflammatory Back Pain	Features	Mechanical Back Pain
Prolonged $\geq$ 60min.	AM Stiffness	Minor $<$ 45 min.
Early AM	Max. Pain/Stiffness	Late in day
Improves Symptoms	<u>Exercise/activity</u>	Worsens Symptoms
Sacroiliitis, Vertebral ankylosis, syndesmophytes	Radiographs	Osteophytes, malalignment

# Investigations in AS

- Laboratory tests
- Raised acute phase response
- Anaemia of chronic disease.
- Positive HLA27
- Negative Rh factor.
- Pelvic XR
  - Sacro-ileitis= erosions
- Lumbar spine
  - Squaring of vertebrae
  - Syndesmophytes
  - Bamboo spine



# SCHOBER TEST





1947



1957



1967



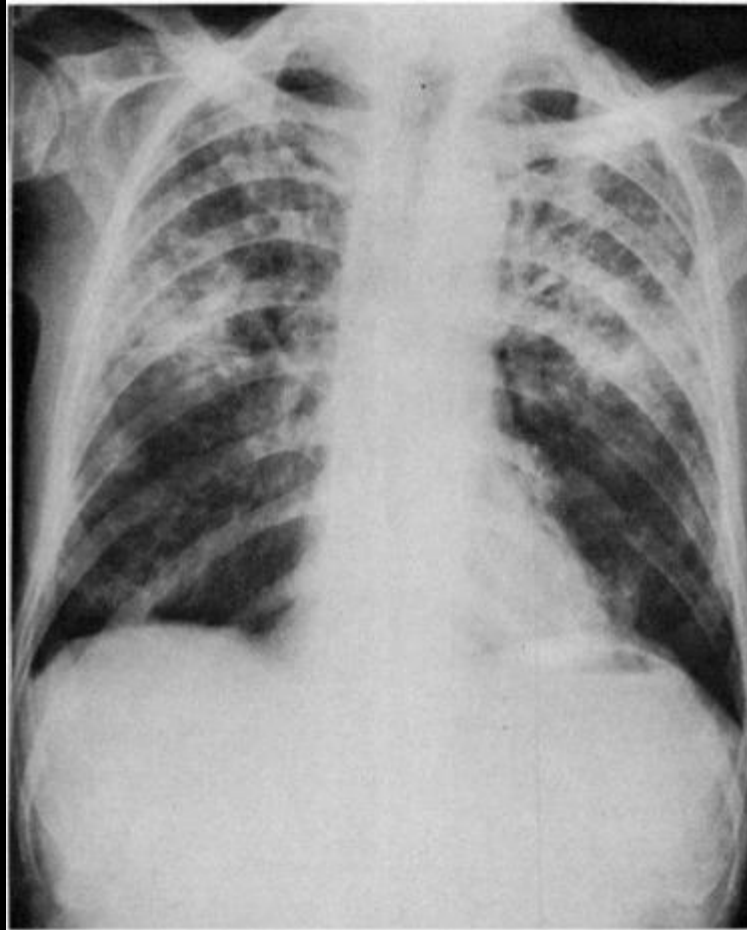
1972



# Complications in AS

- Anterior Uveitis
- Hip disease
  - Mayb need replacements within 15 years of disease onset.
- Spinal fracture
  - Increased risk with rigid spine and secondary osteoporosis
- **Apical fibrosis and Aortic regurgitation.**

# Apical (upper lobe )interstitial fibrosis



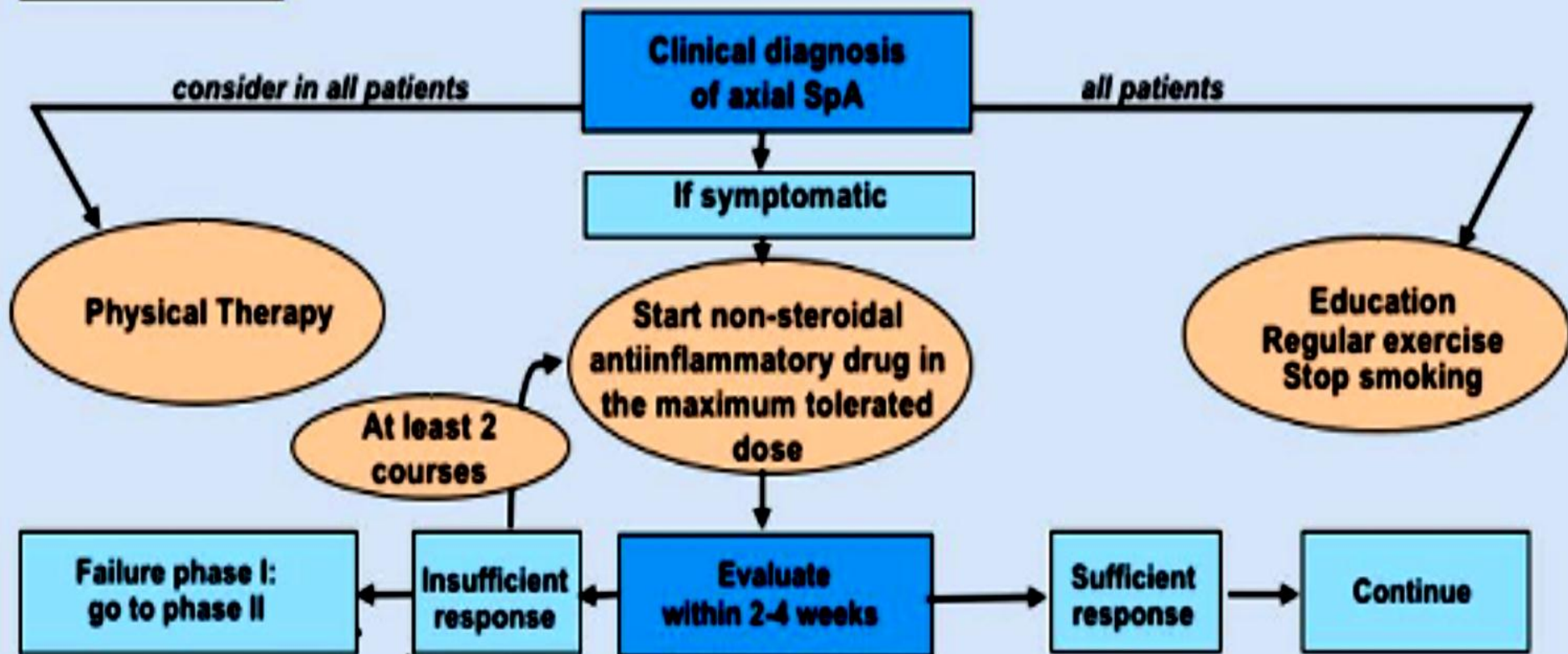
# Therapy in AS

- Hydrotherapy and physiotherapy with lifelong exercise programme.
- NSAID.
  - Indomethacin 75mg bd
- DMARD in those with peripheral arthritis  
Sulphasalazine.
- Anti-TNF DOC drugs examples infliximab ,adalimumab.

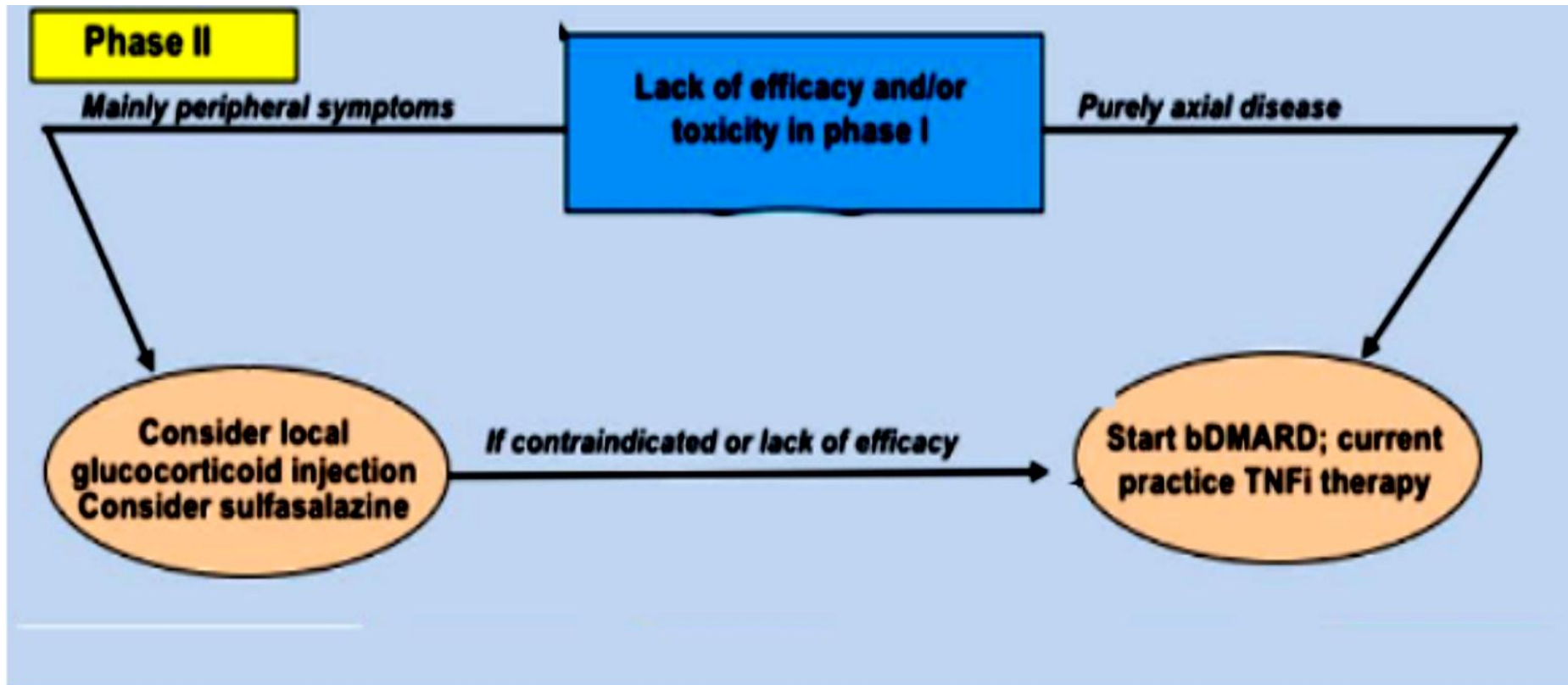
# Phase one is done by GP-F D

## ASAS-EULAR 2016 RECOMMENDATIONS FOR THE MANAGEMENT OF AXIAL SPONDYLOARTHRITIS

### Phase I



# phase 2 done by rheumatologist



There are phase three where other biologics are used by rheumatologist

# Reactive Arthritis Clinical Features

- Peripheral arthritis
  - Abrupt onset, asymmetric oligoarthritis
    - Lower extremities
- Enthesopathy
  - Sausage digits, heel pain (Achilles), plantar pain
- Inflammatory spinal pain
- Evidence of preceding infection
  - GU or GI most common

- 32 year old man presents with back pain and painful swelling of his right ankle and knee associated with conjunctivitis ,he has a history of gastroenteritis last month .

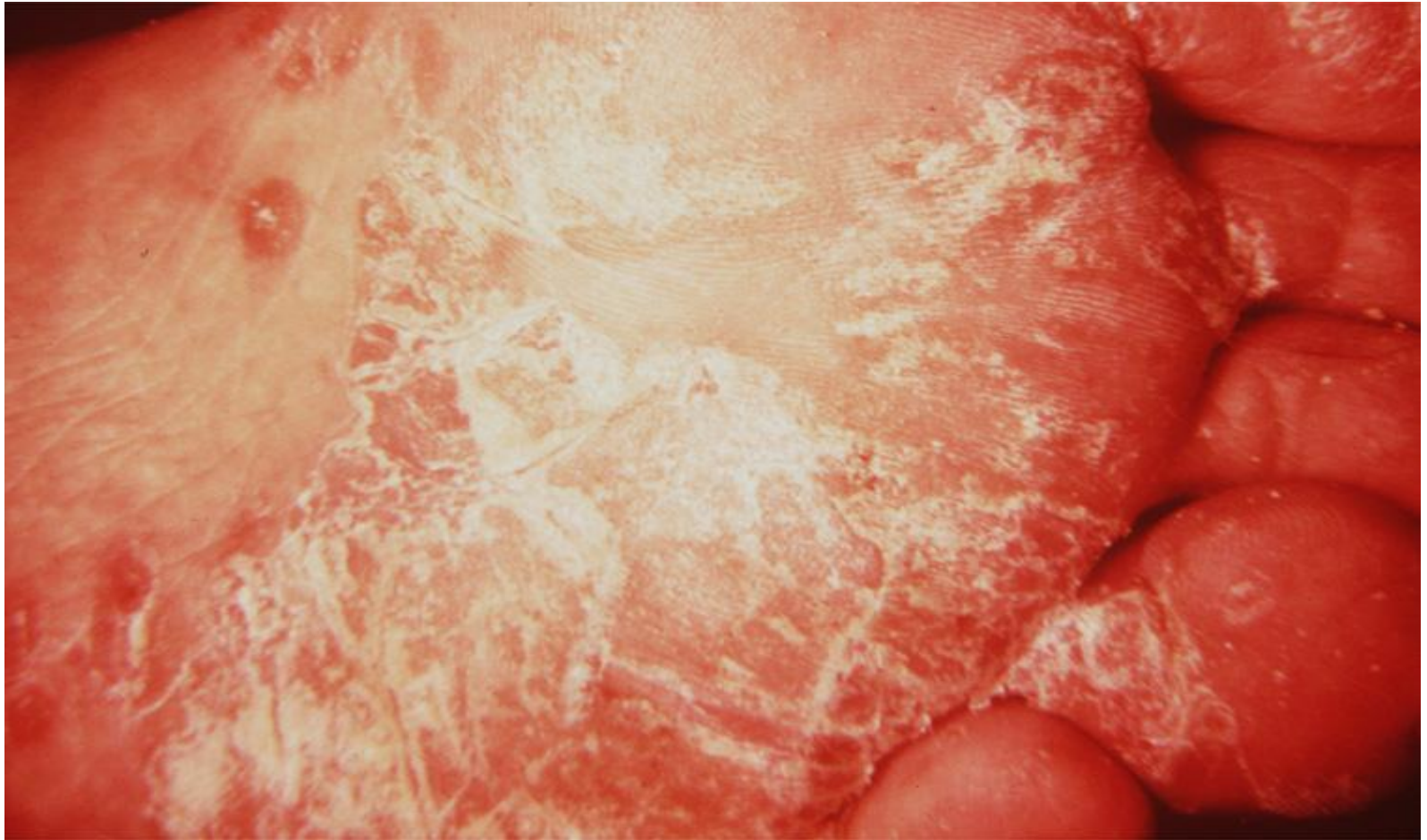


# Reactive arthritis

- Acute arthritis after GU (chlamydia) or GI (shigella, campylobacter, salmonella, yersinia) infection
- Clinical features
  - Mono/oligo arthirits
  - Conjunctivitis
  - Urethritis
  - Enthesitis
  - Dactylitis



# keratoderma blennorrhagica



Yellow and brown Vesicles –papules –scales

# Therapy of Reactive arthritis

- Acute
  - NSAID
  - Joint injection. (if infection excluded)
  - **3 months tetracycline in chlamydia infection**
- Chronic(rheumatologist)
  - NSAID
  - DMARD (e.g. sulphasalazine, methotrexate)

# Psoriatic Arthritis

## Clinical Variants

1. Inflammatory DIP disease
2. Asymmetric oligoarthritis with large and small joints
3. Symmetric polyarthritis
4. Arthritis mutilans
5. Spondyloarthropathy.

# Psoriatic arthritis

- Other features
  - Dactylitis, enthesistis, nail pitting
  - Psoriasis – may be very mild or extensive

# DIP arthritis

**Nail pitting**









**A****B**

**Fig. 24.43 Psoriatic arthropathy.** **A** Dactylitis. **B** Distal interphalangeal joint pattern with accompanying nail dystrophy (pitting and onycholysis).

## 24.62 The CASPAR criteria for psoriatic arthritis

Inflammatory articular disease (joint, spine or enthesis) with  $\geq 3$  points from the following (1 point each unless stated):

- Current psoriasis (scores 2 points)
  - History of psoriasis in first- or second-degree relative
  - Psoriatic nail dystrophy
  - Negative IgM rheumatoid factor<sup>1</sup>
  - Current dactylitis
  - History of dactylitis
  - Juxta-articular new bone<sup>2</sup>
-

# treatment

- methotrexate, sulfasalazine, azathioprine, antimalarials (specifically hydroxychloroquine .
- inhibitors of TNF- , etanercept, infliximab, and adalimumab.
- IL17-1L 23 mabs .monoclonal antibodies.

# Colitis related arthritis

- Can occur in association with Crohns or ulcerative colitis.
- Peripheral arthritis (often a mono or oligoarthritis) improves with colectomy, **axial disease does not**
- Sulphasalazine helpful



thank you