

Rapid Overview

Spondyloarthropathies (SpA) & Ankylosing Spondylitis (AS)



Spondyloarthropathies (SpA)

- A group of related chronic inflammatory conditions
- Tend to affect the axial skeleton with shared clinical features:
 1. Seronegativity
 2. HLA-B27 association
 3. Axial arthritis
 4. Asymmetrical large-joint oligoarthritis or monoarthritis
 5. Enthesitis: Achilles' tendonitis
 6. Dactylitis
 7. Extra-articular manifestations
e.g., anterior uveitis, psoriaform rashes
oral ulcers, aortic valve incompetence,
inflammatory bowel disease

Spondyloarthropathies (SpA)

- Ankylosing spondylitis
- Reactive Arthritis
- Enteropathic arthropathy (or spondylitis associated with inflammatory bowel disease)
- Psoriatic arthritis
- Juvenil idiopathic arthritis
- Undifferentiated spondyloarthropathy

A 25-years-old male presents to you with gradual onset of low back pain over last couple of months.

Pain is worse during the night with morning stiffness in spine.

Pain & stiffness is relieved by exercise.

Pain radiates from sacroiliac joints to hips & buttocks, and usually improves towards the end of the day.

What is the possible diagnosis? How will you confirm? What is the treatment?

ANKYLOSING SPONDYLITIS

Ankylosing Spondylitis

- Chronic inflammatory disease of the spine and sacroiliac joints of unknown etiology
 - Likely strong genetic & environmental interplay
 - ~90% are HLA B27 +ve
 - **Prevalence:** 0.25–1%
- Male to female ratio ~6:1 at 16 years old and ~2:1 at 30 years old

Symptoms & Signs

- < 30 years old usually male gender
- Gradual onset of low back pain, worse during the night with spinal morning stiffness relieved by exercise.
- Pain radiates from sacroiliac joints to hips/buttocks, and usually improves towards the end of the day.
- There is progressive loss of spinal movement in all directions
- Variable disease course
- Kyphosis, neck hyperextension (question-mark posture), and spino-cranial ankylosis

Symptoms & Signs

- Enthesitis - Achilles tendonitis, plantar fasciitis, at the tibial and ischial tuberosities, and at the iliac crests
- Anterior mechanical chest pain due to costochondritis
- Acute iritis occurs in $\sim\frac{1}{3}$ of patients and may lead to blindness if untreated
- Osteoporosis (up to 60%)
- Aortic valve incompetence (<3%)
- Pulmonary apical fibrosis

Diagnosis

- Diagnosis is clinical, supported by imaging
- HLA B27
(+ve in 90–95% of cases but only 5% of HLA B27 +ve have AS)
- Sacroiliitis on imaging plus ≥ 1 SpA feature *or* HLA B27 positive plus ≥ 2 SpA features
 1. Seronegativity
 2. HLA B27 association
 3. Axial arthritis
 4. Asymmetrical large-joint oligoarthritis *or* monoarthritis
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 7. Extra-articular manifestations: eg anterior uveitis, psoriaform rashes oral ulcers, aortic valve incompetence, inflammatory bowel disease

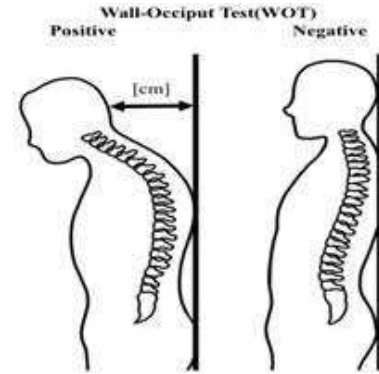
Diagnosis

- MRI allows detection of active inflammation (bone marrow oedema) as well as destructive changes such as erosions, sclerosis, and ankylosis
- X-rays can show SI joint space narrowing or widening, sclerosis, erosions, and ankylosis/fusion
- Vertebral syndesmophytes are characteristic. These fuse with the vertebral body above, causing ankylosis. In later stages, calcification of ligaments with ankylosis lead to a 'bamboo spine' appearance
- FBC (normocytic anaemia), raised ESR, raised CRP



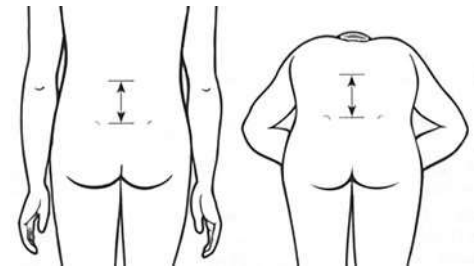
Clinical Tests

- Occiput-to-wall test



- Chest expansion

- Schober test (modified)



Management

- Exercise for backache, including intense exercise regimens to maintain posture and mobility
- NSAIDS
- TNF- α Blockers (eg etanercept, adalimumab) and Anti IL 17- α are indicated in severe active AS

Management

- Local steroid injections
- Surgery - hip replacement , spinal osteotomy
- Bisphosphonates

Prognosis

- There is not always a clear relationship between the activity of arthritis and severity of underlying inflammation
- Prognosis is worse if:
 1. Onset < 16yrs age
 2. ESR >30
 3. Early hip involvement
 4. Poor response to NSAIDS

Last Second **Medicine**

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