

Spondyloarthropathies

- Immunological relation with HLA B27.

- 1) Axial Spondyloarthropathy
 - a) Ankylosing spondylitis
 - b) Axial spondyloarthritis
- 2) Reactive arthritis
- 3) Psoriatic arthritis

Ankylosing Spondylitis
↓ ↓
Stiffness vertebra Inflammation

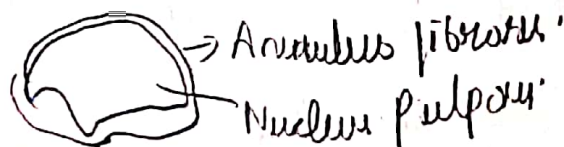
- Bechterew disease - Seronegative spondyloarthropathy that autoimmune diseases that affect the joints with absence of Rheumatic factor.
- It is chronic inflammatory disease that affects the vertebral joints & (eyes & blood vessels).

Etiology → unclear

- Autoimmune disease with HLA B27 positive
- Male to female ratio - 3:1.
- Associated with P - Psoriasis, A - IBD, R - Reiter's syndrome.

Pathophysiology

Normally it has



1) Intervertebral Disc (Type I & Type II collagen)

Annulus Fibrosus & Nucleus Pulposus

- shock absorber

2) Facet Joint (synovial joint)

- limit the motion of spine.

Patient with HLA B27 mutation positive.

↓
MHC class I molecule swallows the collagen

↓
T lymphocyte CD8+ T cells binds to the antigen

↓
Cytokines → Neutrophils

↓
Cytokines (TNF α , IL1)

↓
Inflammation & destruction of the Intervertebral disc, facet joints & sacroiliac joint

↓
Fibroblasts replace the destroyed with fibrin

↓
Fibrous Band limits the motion.

↓
Osteoblasts form the bone from fibrous tissue.

↓
Spondylophytes (Makes spine immobile)

Clinical Features

- Fatigue is the most common feature.
- Weight loss & fever.
- Sacroiliac Joint involvement is the criteria for diagnosis → Buttock pain.
- Cervical / Thoracic region → Neck or Back pain & stiffness → Shortness of breath, Kyphosis.

Extra articular

- 1) Anterior Uveitis (common)
- 2) Prostatitis and Sterile Orchitis.
- 3) Inflammatory Bowel disease.
- 4) Cardiovascular disease (aortic valve disease).
- 5) Pulmonary fibrosis.

Investigation

→ Xray and MRI

Early → Erosion or narrowing of joint space.

Late → Joint fusion (Synostophytes)

Xray → of spine → Bamboo spine → due to ossification of annular fibrosis.

→ Blood → ↑ ESR, ↑ CRP, Anemia

→ Genetic → HLA B27 positive.

→ No antibodies is associated like ANA, RF, ACPA.

Management

- Exercise, physical therapy
- Biologics.
- Spinal surgery is risky.

(Reiter's Syndrome) Reactive arthritis. Some negative
→ After infection causes inflammation. ~~use~~ (HLA-B27)
Causes: Gram Negative (lipopolysaccharide outside)
Sexually Transmitted ↓ Gastroenteritis - (Endotoxin)
- Chlamydia - Salmonella, Shigella, Yersinia,
Campylobacter, E. coli

Clinical Features

2-3 weeks after infection

- 1) Pain & swelling of single large joint } Reiter's syndrome.
- 2) Arthritis → Urgency, frequency, dysuria,
- 3) Conjunctivitis → Discharge, erythema, burning
- 4) Cervicitis → Dyspareunia
- 5) Pericarditis → chest Pain & Fever.
- 6) Keratoderma blennorrhagica → In palms & soles.
- 7) Circinate balanitis.
- 8) Urethritis, Mouth ulcers.

Investigation

- ESR & CRP ↑
- No antibodies for ANA, RF, ACPA.
- HLA B27.
- vaginal swab → Chlamydia.

Psoriatic arthritis = Inflammation

Psoriasis → Red lesion

- Seronegative spondyloarthropathy

CLF

Pathology → Same as Psoriasis

5 types

1) Oligoarticular / Monoarticular

2) Polyarticular → Resembles RA

3) ~~Sp~~ Distal Interphalangeal joint arthritis

↳ Sausage digit or dactylitis

Hallmark

→ Nail abnormality like pitting

4) Spondyloarthritis

5) Arthritis mutilans

↳ Telescoping of digit due to erosion of bone

Opesia - glass shard

Enthesitis → Pain & stiffness in the insertion
sites of tendons or ligaments in bones

Investigation

- HLA B 27, CRP, ESR

- No autoantibodies, No ANCA, ANA, RF

- X rays → Erosion, MRI, CT