**ANKYLOSING SYPONDYLITIS(AS)**

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**Like Rheumatoid Arthritis, this is a generalized chronic inflammatory disease, but its effects are seen mainly in the spine and sacroiliac joints. Characterized by:**

**1.Pain**

**2.Stiffness of the back.**

**It involves the hips and shoulders. Males are more affected than females. Prevalence of 2:1 to 10:1. The onset of the disease is between 15 to 25 years. There is a strong tendency to familial aggregation and association with genetic marker HLA-B27(HUMAN LEUCOCYTE ANTIGEN).**

**AETIOLOGY.**

 **A genetically determined immunopathological disorder-HLA -B27 is present in all 95% of families.**

**Sometimes associated with some infections of genitourinary or bowel.e.g. Reiter’s disease or ulcerative colitis.**

**PATHOLOGY.**

 **There are two basic lesions: Synovitis of diarthroidal joints and inflammation of the fibro-osseous junctions of syndesmotic joints and tendons.**

 **Synovitis of the sacroiliac and vertebra facet joints causes destruction of articular cartilage and peri-articular bone.**

**Pathological changes proceed in three stages:**

**1.An inflammatory reaction cell infiltration, granulation tissue formation and erosion of adjacent bone.**

**2.Replacement of the granulation tissue by fibrous tissue.**

**3.Ossification of the fibrous tissue leading to ankylosis of the joint. Ossification across the surface of the disc gives rise to small bony bridges or syndesmophytes (bony growths, osteophytes) linking adjacent vertebra bodies. If many vertebrae are involved the spine may become absolutely rigid.**

**CLINICAL FEATURES:**

**1.Backache**

**2.Stiffness**

**3.Symptoms worse in the morning.**

**4.Referred pain in the buttocks and thighs may appear as sciatica.**

**5.General fatigue.**

**6.Pain and swelling of joints**

**7.Tenderness at the insertion of the Achilles tendon**

**8.Foot strain or intercostal pain and tenderness.**

**9.Flattening of the lower back.**

**10.Limitation of extension in the lumbar spine.**

**11.Loss of the normal lumbar lordosis>kyphosis (WALL TEST).**

**12.Reduced chest expansion**

**13.Extra skeletal manifestations**

* **Fatigue**
* **Carditis**
* **Glaucoma**
* **Pulmonary fibrosis**
* **Aortic valve disease**

**INVESTIGATIONS**

**1,.X-rays**

**2. MRI**

**3.Special investigations Blood for ESR and CRP.HLA-B27 is present in 95% of cases**

**Diagnosis**

**History of AS in a close relative is strongly suggestive.**

**Typical deformities.**

**Differential diagnosis**

**1.Mechanical disorders**

**2.Other inflammatory conditions of joints and bones.**

**Treatment.**

**1.Rest**

**2.Exercises**

**3.General measures to maintain satisfactory posture and preserve movement.**

**4.Anti-infammatory drugs to counteract pain and stiffness.**

**5.Operation to correct deformity or restore mobility.**

**COMPLICATIONS**

**1.Spinal fractures C5-C7**

**2.Hyperkyphosis**

**3.Spinal cord compression**

**4.Lumbosacral nerve root compression**

**5.Lower limb weakness and paresthesia.**