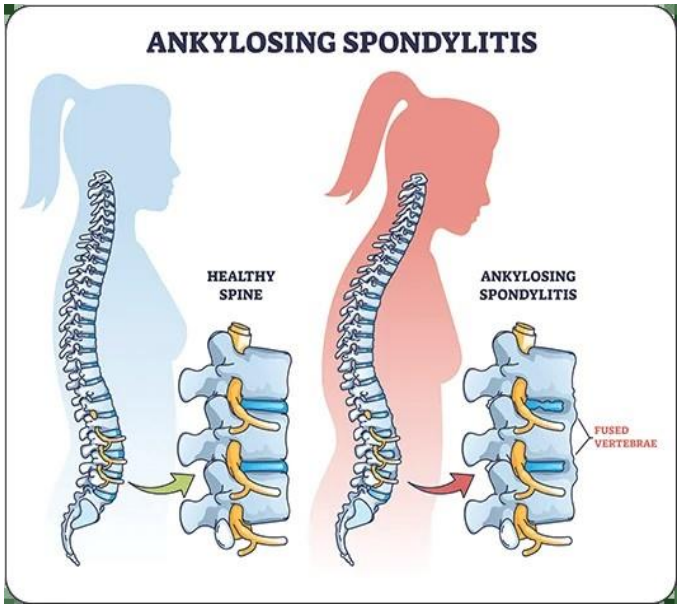

In ankylosing spondylitis there is chronic inflammation, progressing slowly to bony ankylosis, of the joints of the spinal column and occasionally of the major limb joints.

Cause - This is unknown. The condition is distinct from rheumatoid arthritis, although it is sometimes loosely termed rheumatoid spine.' There is evidence of an inheritable predisposition to the disease.

Pathology - The disease always begins in the sacro-iliac joints, whence it usually extends upwards to involve the lumbar, thoracic, and often the cervical spine. Occasionally the hips or shoulders are also affected. The articular cartilage, synovium, and ligaments show chronic inflammatory changes and eventually they become ossified. After several years the inflammatory process' burns itself out."

Clinical features -With few exceptions the disease is confined to men, and it nearly always begins between the ages of 18 and 30. The early symptoms are pain in the lower back and increasing stiffness. Later, the pain migrates upwards. Diffuse radiating pain down one or both lower limbs is also common. On examination the predominant finding is marked limitation of all movements in the affected area of the spine ('poker back'). When the thoracic region is involved chest expansion is markedly reduced, from ankylosis of the costo-vertebral joints. In a few cases the hips or shoulders are affected, with pain and limitation of movement.

Radiographic examination: In the early stages there is fuzziness of both the sacro-iliac joints, so that the joint outline is no longer clearly defined. Later, the sacro-iliac joints are completely obliterated and, if the disease progresses, the intervertebral joints in the lumbar, thoracic, and sometimes even the cervical region undergo bony ankylosis.

Investigations: The erythrocyte sedimentation rate is raised while the disease is active.

Diagnosis - Ankylosing spondylitis has to be distinguished from other causes of back pain and sciatica. The marked limitation of spinal movement, reduced chest expansion, typical radiographic features, and raised erythrocyte sedimentation rate are diagnostic.

Course and complications -The disease usually ceases to progress after ten or fifteen years, leaving permanent stiffness, the extent of which varies widely from case to case. Some patients become

bedridden. Complications include fixed flexion deformity of the spine, intercurrent respiratory infections, and iridocyclitis, which in severe cases may lead to blindness.

Treatment - Radiotherapy has in the past been widely advocated as the mainstay of treatment. It is certainly often effective in relieving pain, and many believe that it arrests or at least retards the progress of the disease. Its great disadvantage is that it

1. entails a risk of leukaemia though probably a very slight one if the dosage is carefully judged. A further objection in women is

2. that the ovaries may be damaged by irradiation of the base of the spine. The future of this method must depend upon a further long-term assessment of its efficacy and of the magnitude of the risk involved. As an alternative phenylbutazone may be found effective in relieving pain. Other mild anti-inflammatory drugs may also be tried, but corticosteroids should have no place in treatment except for ophthalmic complications. Apart from these measures, treatment should be directed towards preserving function Activity rather than rest should be enjoined. Special exercises should be practised to make the most of such movement as remains. The patient should adopt the habit of sleeping flat upon his back on a firm mattress, with only a single pillow, to prevent increasing flexion deformity of the spine. If severe flexion deformity occurs through neglect of this precaution it may be corrected by wedge osteotomy of the spine in the lumbar region.

Ref. Outline of Orthopaedic,page no. 195-198,John Crawford Adams,7th edition,The English language book society and churchilllivingstone,