CERVICAL SPONDYLOSIS

By: Abeer Huseein
Cervical spondylosis

Mainly in the last 3 vertebrae of the cervical spine.

Degenerative changes in:
1) Intervertebral discs.
2) Then to posterior intervertebral (facet) joints.

And this will causing pain and stiffness of the neck, sometimes with referred symptoms in an upper limbs.
Degenerative changes in:

1) Intervertebral discs.
   1) Degenerative narrowing of intervertebral disk.
   2) Bone reaction at the joint margins leads to the formation of osteophytes.

2) Then to posterior intervertebral (facet) joints
   1) Wearing away of the articular cartilage & the formation of osteophytes.
   2) This will compress the intervertebral foramen and reduce the space for transmission of the cervical nerves.
   3) Manifestation of nerve pressure are likely to occur.
Exceptionally, spinal cord itself may suffer damage from encroachment of osteophytes within the spinal canal.
Fig. 12.7 Osteoarthritis of the cervical spine. At first there is simply degeneration and narrowing of the intervertebral disc, with the formation of osteophytes anteriorly (A). Later, the posterior or facet joints are affected: the articular cartilage is worn away and marginal osteophytes may encroach upon the intervertebral foramen (B).
What is the cause?

- The primary degenerative changes may be initiated by injury but usually it is simply a manifestation of normal aging processes.

- So, we mainly see it in over 50 years of age pts.
Symptoms:

- The condition is not always symptomatic, and many people go throughout life without experiencing anything more than slight stiffness.
- Troublesome symptoms come on gradually.

“the main feature of nerve root irritation is radiating pain along the course of the affected nerve/s & often reaching the digits”.
Symptoms:

○ **Profile** ..... The patient, usually aged over 50 years.

○ **Chief complaint** ..... neck pain and stiffness.

○ The pain may radiate : to the occiput, the scapular muscles and down one or both arms.

○ Audible crepitation with movements are common.

○ Paraesthesia, weakness and are occasional symptoms.
Signs:

- There may be tenderness in the **soft tissues at the back of the neck** and **above the scapulae**.
- Neck movements are limited and painful at the extremes.
- Careful neurological examination may show abnormal signs in one or both upper limbs.
On examination:

- The neck may be slightly kyphotic.
- The post. Cervical muscles may be somewhat tender but they are not in spasm.
- Movement aren’t markedly diminished except during acute exacerbations or when the degenerative changes are very advanced.
- Audable crepitation on movement is common.
Radiographic features:

- Narrowing of intervertebral disc space with formation of osteophytes at the vertebral margins, specially anteriorly.

- A single vertebral level may be affected, often at c4-c5 and c5-c6 level.

- Encroachment of osteophytes upon intervertebral foramen is demonstrated best in oblique projections or on CT scans.

- MRI: will show whether there is nerve root compression.
Fig. 12.8 Cervical spondylosis. Note in the lateral view (A) the narrowed intervertebral space, with marginal osteophyte formation, at C5–C6 and at C6–C7. The oblique view (B) shows severe encroachment of osteophytes upon an intervertebral foramen (compare with the normal foramen below).
Diagnosis:

Distinction has to be made from:

1) Other causes of neck pain:
   - prolapsed vertebral disc.
   - Tuberculosis or pyogenic infection.
   - Tumors involving the vertebral column.
   - Fibromyalgia.

2) Other causes of upper limb pain:
Fig. 12.9 Seven causes of interference with the brachial plexus or its roots.
1. Tumour of cord. 2. Tumour of spinal column. 3. Tumour of nerve root.
7. Tumour at thoracic inlet.
During painful episodes, heat and massage are soothing; some patients benefit from a period in a restraining collar. Physiotherapy is the mainstay of treatment, patients usually being maintained in relative comfort by various measures including exercises.

Surgical treatment is indicated if severe symptoms are relieved only by a rigid and irksome support, particularly if there are neurological changes due to nerve root compression.
END OF 1ST LEC.