ADOLESCENT KYPHOSIS: Scheuermann’s Disease

Fixed Round back deformity due to kyphosis in the thoracic spine.
Defect in the ring epiphysis of the vertebra.
Cause is not known.

Pathogenesis: Possible avascular necrosis of ring apophysis with premature fusion of the anterior ring and herniation of the nucleus pulposum through defective end plate causing Schmorl’s node

Incidence 04%-8%; equal for both sexes

Normal Kyphosis in thoracic spine [Fon]
Adolescent boy 25
Girl 26
Over 40° is significant

Signs and Symptoms
5% incidence, TAD
Usually in boys; at puberty
Progression of deformity: Patients perceptive and radiological assessment
Some patients may complain of pain
Neurological symptoms: rare

Look for: Spondylolisthesis and Scoliosis [30-50%]
Cardiopulmonary compromise only there is severe Kyphosis [more than 100°]
Differential diagnosis: Postural Kyphosis [Kyphosis is flexible]

Radiology
Lower thoracic vertebral involvement T7-12
5° wedging of 3 vertebra
or thoracic Kyphosis more than 45°

Schmorl’s nodule
Irregularity of endplate [anterior half]
Decrease disc space

Treatment
Majority requires only symptomatic treatment.
Stretching exercises should be encouraged
50-75°: Milwaukee brace is indicated in adolescent
>75°: Flexible Posterior stabilization
>75° and rigid >50°: requires anterior release and posterior instrumentation
**Scheuermann’s in Adults**

Pain is a predominant symptom; is due to development of spondylosis and can be refractory to non-operative treatment

Rarely increased deformity and neurology

Pseudo Scheuermann’s: lumbar. Pain is the problem.

Increased Cervical and lumbar lordosis to compensate for thoracic vertebra and both sagittal and coronal balance is well preserved.

Natural history is difficult to discern

MRI reveals disc degeneration 5 fold more than normal population

Untreated Scheuermann’s more pain and deformity in adult life