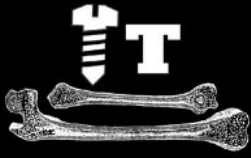


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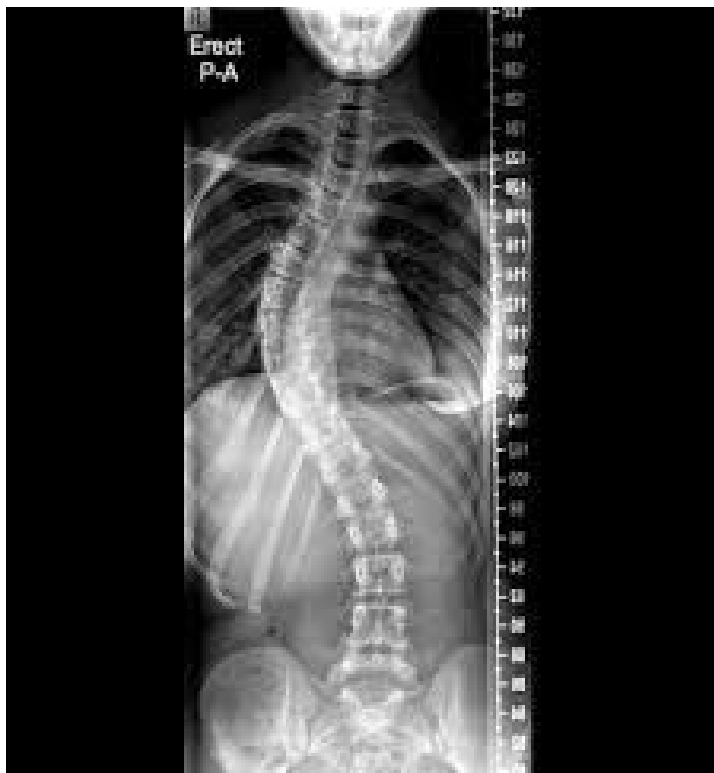
Weekly Podcast Episodes!



Adolescent Idiopathic Scoliosis Notes- w/ Dr. Cho

[@drbobbybones](#)

Twitter- [@DrRobertCho](#)



History/Physical

- Age, Birth history, family history
- assessment of physiologic maturity (menarche)
- Baseline assessment of curve patterns
- shoulder levels, waist asymmetry, pelvic tilt
- Adam forward bend test
- Most present due to a deformity

- Full neurological & musculoskeletal exam
- Look for presence of signs that points out secondary causes of scoliosis
 - a. Midline skin defects
 - b. spina bifida
 - c. cafe-au-lait spots
 - d. foot deformities
 - e. asymmetric abdominal reflexes



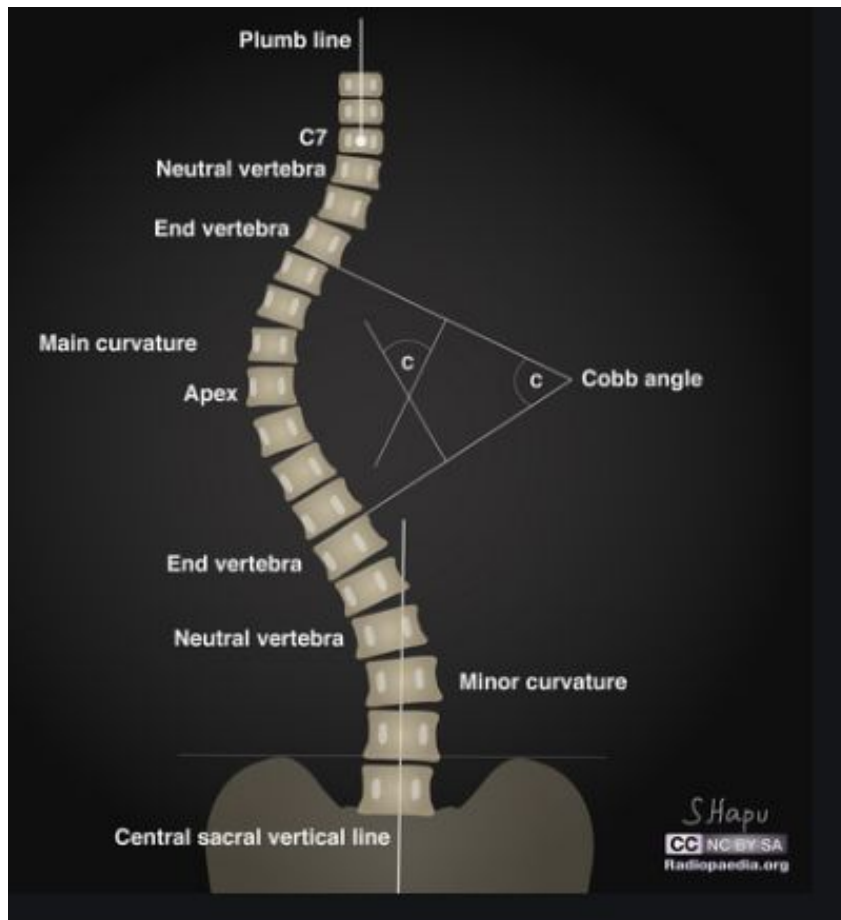
Red Flags:

Severe pain, stiffness, sudden rapid progression, abnormal neuro findings, extensive progression in a patient after skeletal maturity

Imaging

Xray Imaging – Standing PA & Lateral

- Measure the degrees of the curve using the Cobb method
 - Appreciate any sagittal abnormality
- should include pelvis to assess the ossification of iliac crest



Obtain bending films to assess the flexibility of the curve

- Cobb angle
- Spinal Balance- C7 plumb line

- Stable zone
- Stable vertebrae
- Neutral vertebrae
- Apical vertebrae

MRI imaging

- mandatory in patients who present w. rapid curve progression
- Back pain
- Neurodeficits
- neck stiffness
- severe unexplained headaches
- ataxia or cavus feet

Epidemiology/Pathology

- Scoliosis is a complex three-dimensional deformity of the spine characterized by a lateral deviation of at least 10 degrees associated with a rotational component
- Commonly affect girls w/ female to male ratio of up to 3:1 in the literature
- Most presents with Right sided thoracic curve
- Genetics?
- Primary muscle disorder ?
- Likely multifactorial w/ genetic predisposing factors

Curve Progression

- Age at presentation (future growth potential)
- Gender (menarche status)
- Magnitude of the curve at presentation

Risser Grading Classification
Tanner-Whitehous

Classification

Lenke Classification

Treatment based on

- A. maturity of the patient
- B. Location
- C. Severity and risk of progression of the curvature

Observation

- Curvature is less than 25 degrees patient can be observed on a 6-12 monthly basis

Bracing

- Curves between 25-45 degrees and risk of curve progression
- Thoracolumbar Bracing
- Does this correct scoliosis ?
- Compliance ?

Surgery

- Curves beyond 45 degrees
- correct deformity including rotation, improve spinal alignment and balance

Approaches

- Anterior only
 - Combined anterior/posterior
 - Posterior
- Pros and Cons ?

Treatment

Nailed It Ortho podcast episode

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References mentioned:

Weinstein, S. L., Dolan, L. A., Wright, J. G., & Dobbs, M. B. (2013). Effects of bracing in adolescents with idiopathic scoliosis. *New England Journal of Medicine*, 369(16), 1512-1521.