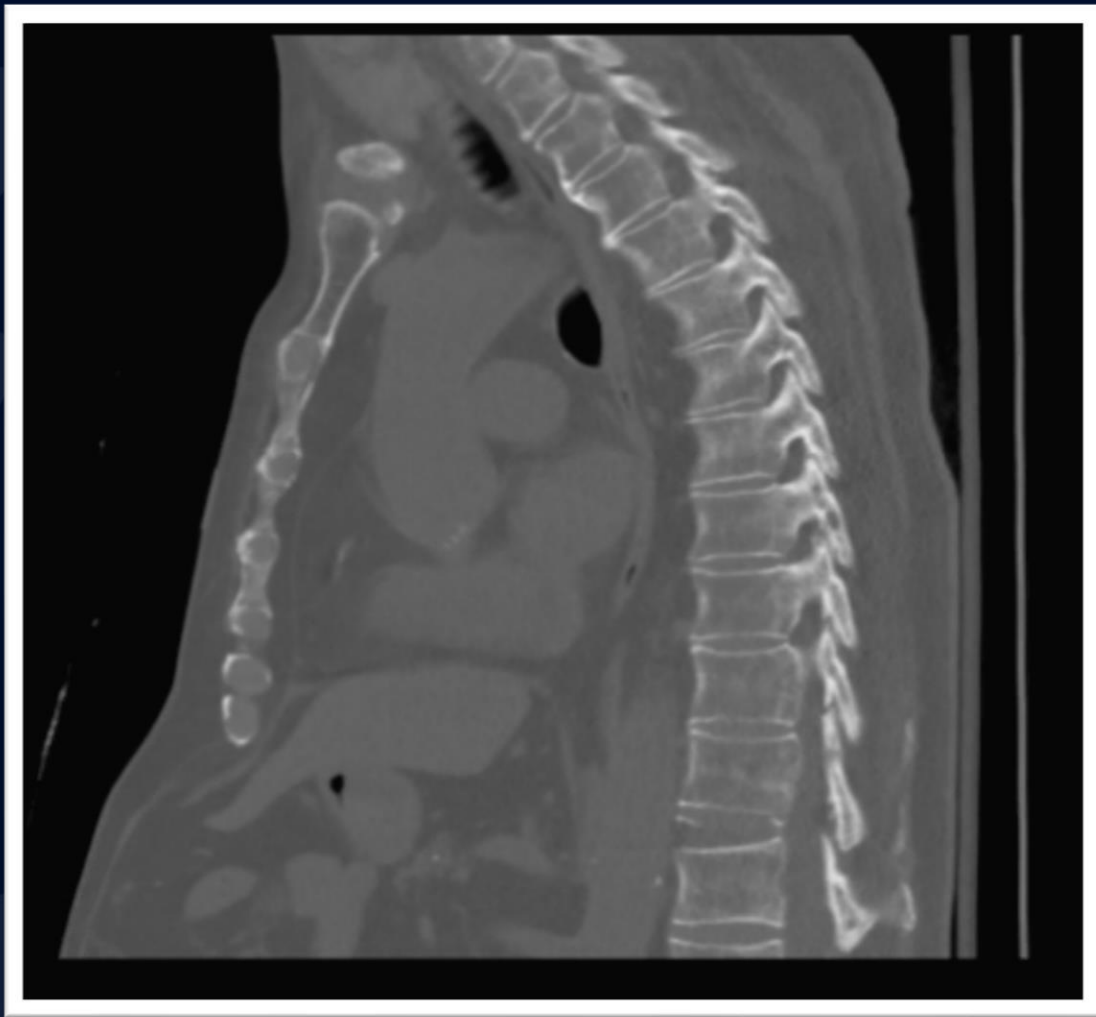
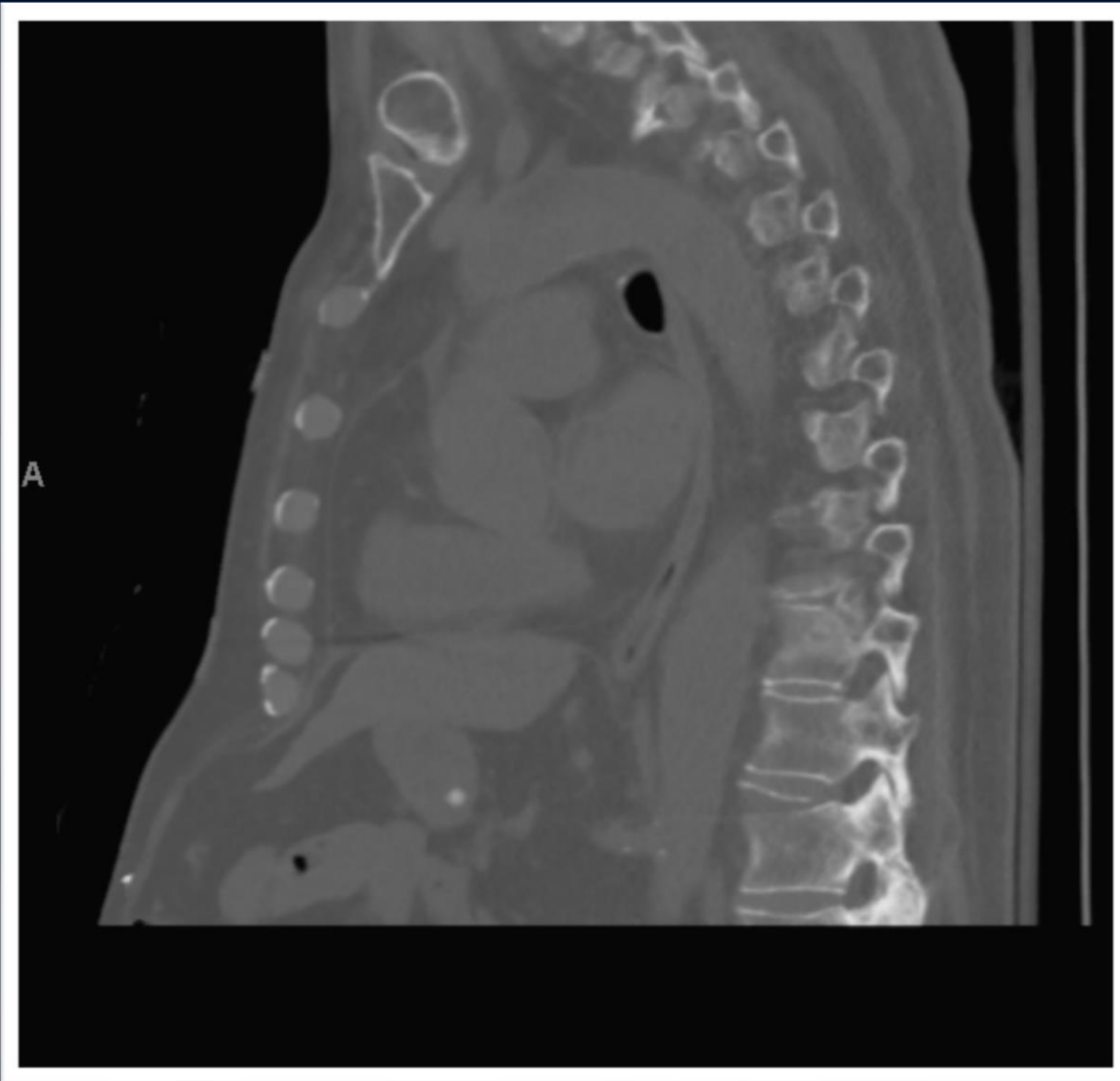


# 88 y/o male presents after syncope and fall

Edward Gillis, DO








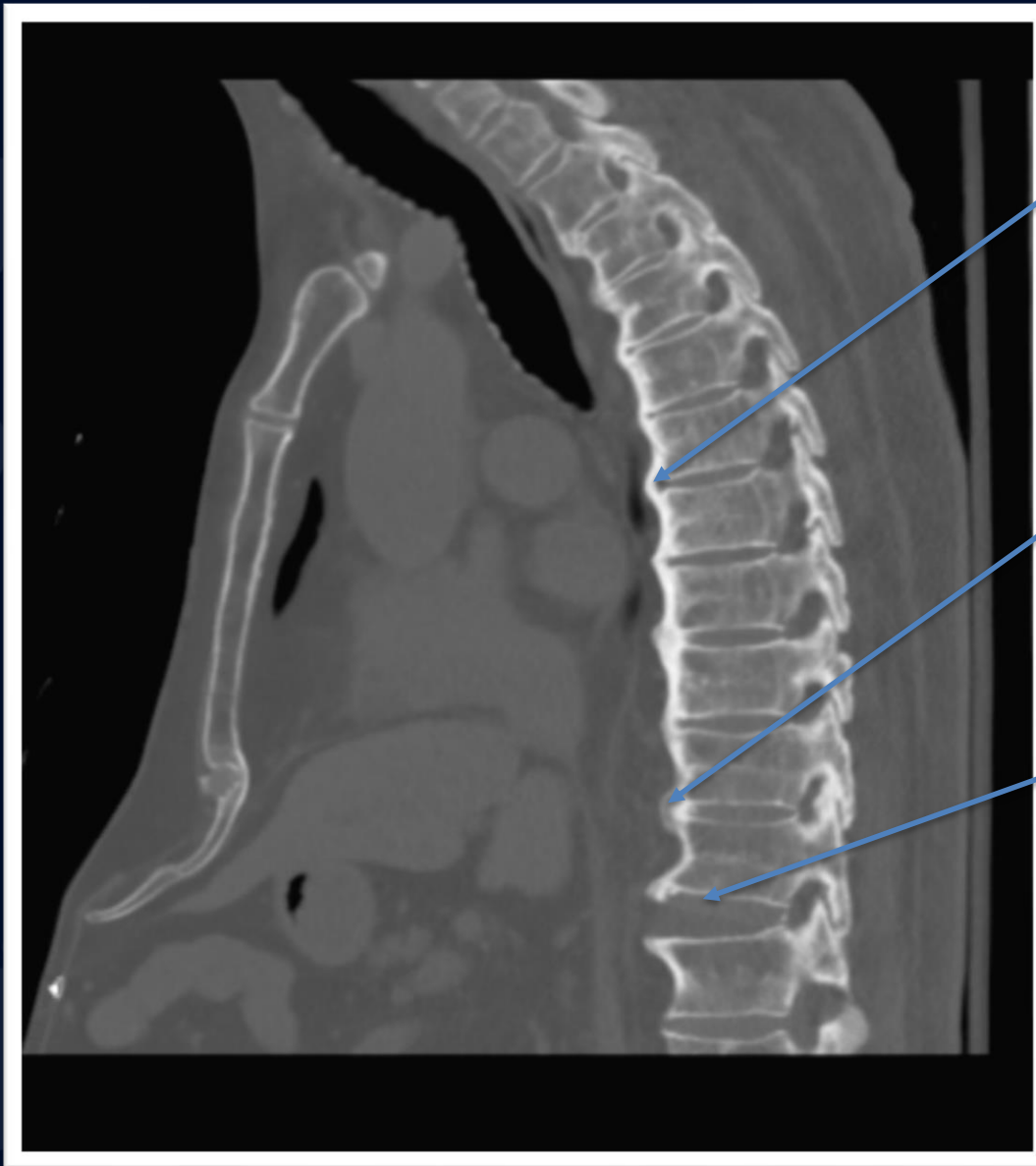


A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. It features detailed vein patterns and a lobed edge.

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A large, stylized oak leaf graphic in a dark blue color, positioned on the left side of the slide. The leaf has a prominent central vein and several smaller veins branching off, with a serrated edge.

# Chalk stick fracture with superior T12 endplate avulsion

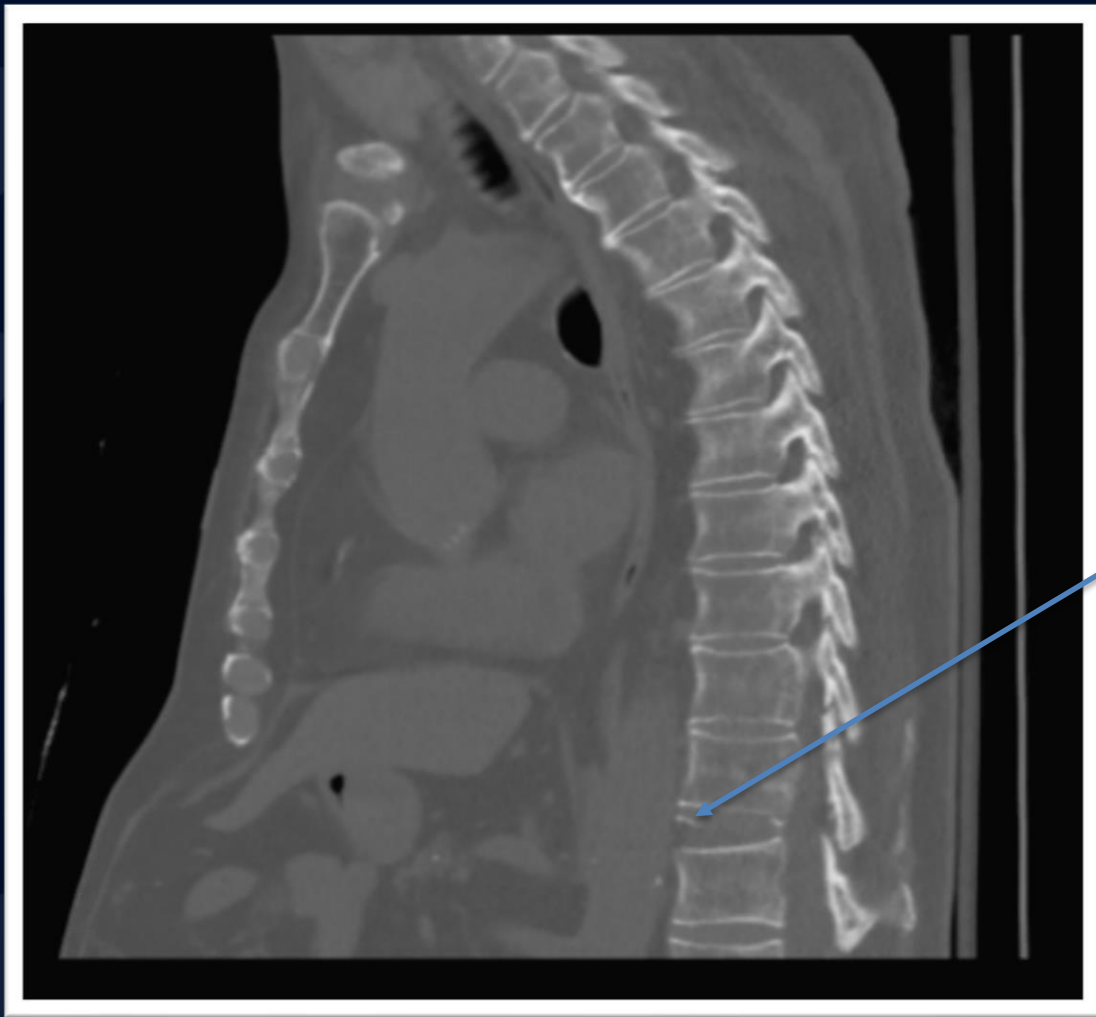


Ossification of the anterior longitudinal ligament

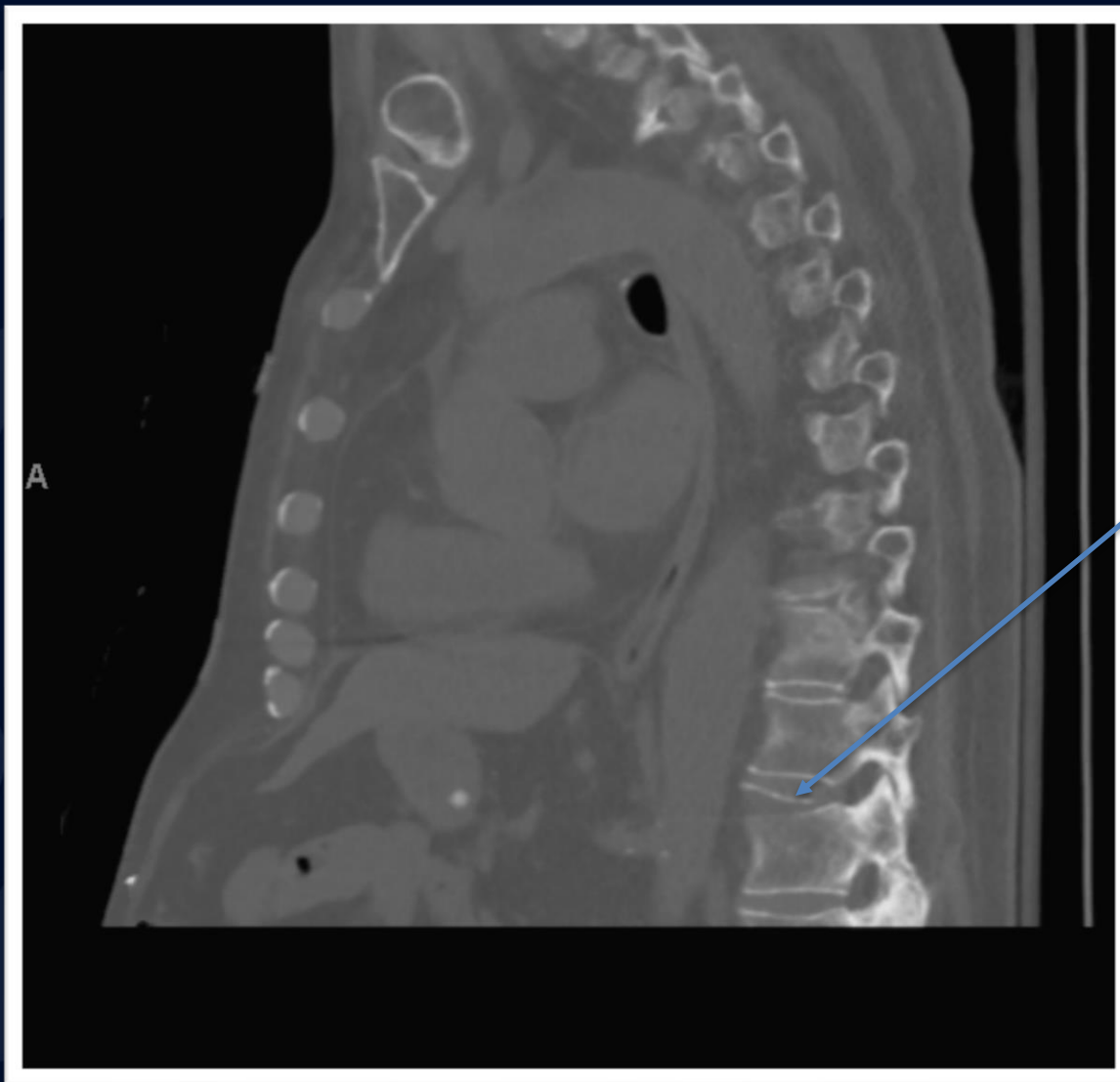
Vertical syndesmophytes

Disc space widening





Transverse fracture through the superior endplate at T12



Transverse fracture through the superior endplate at T12



- Difficult to visualize the T12 superior endplate fracture on plain radiographs
- Better appreciated are the multilevel anterior syndesmophytes producing spinal fusion

# Chalk Stick Fracture

- Fractures of a fused spine, classically seen in ankylosing spondylitis.
- Usually occur through the disco-vertebral junction.
- When several contiguous segments of the spine are fused, the fused column acts as a lever arm.
  - Increased stress on the fused segments.
  - Fractures often occur following minimal trauma due to fusion and osteoporosis.

# Radiographic Findings

- Thin vertical syndesmophytes which form in the outer fibers of the annulus fibrosus
  - Better appreciated on radiograph than CT or MRI
  - Leads to spinal fusion
- Osteopenia or osteoporosis
- May see ossification of anterior or posterior spinal ligament
- Fractures are generally transverse
- Often at cervicothoracic or thoracolumbar junctions

# References

- Chaudhary SB, Hullinger H, Vives MJ. Management of Acute Spinal Fractures in Ankylosing Spondylitis. *ISRN Rheumatology*. 2011;2011:150484. doi:10.5402/2011/150484.