Vertebral Compression Fracture (VCF)

Key Points

- <50 yo trauma is the most common etiology
- 20-30% incidence of multiple fractures, often in other regions of the spine
- Thoracic fractures make up 40-55% of all compression fracture
- Lumbar fractures only make up 20-30%
- Take views of BOTH thoracic and lumbar spines, regardless of pain area
- Most VCF occur from T7-L1
- VCF above T7 need to rule out malignancy

X-ray Findings:

- Loss of height > 20% of vertebral body
- Presence of endplate deformity
- Acute= cortical disruption
- Altered appearance of vertebral margins
- Vacuum sign (but may also be DDD)

Vertebral Compression Fracture MRI Findings:

- Acute= vertebral bodies may be darker on T1 weighted images
- Vertebral body edema (white on T2, or STIR) is sensitive for active fracture.
- T2 signal normalizes over time (no predicable amount of time)