

Imaging Insights- #2

Fractures that are not

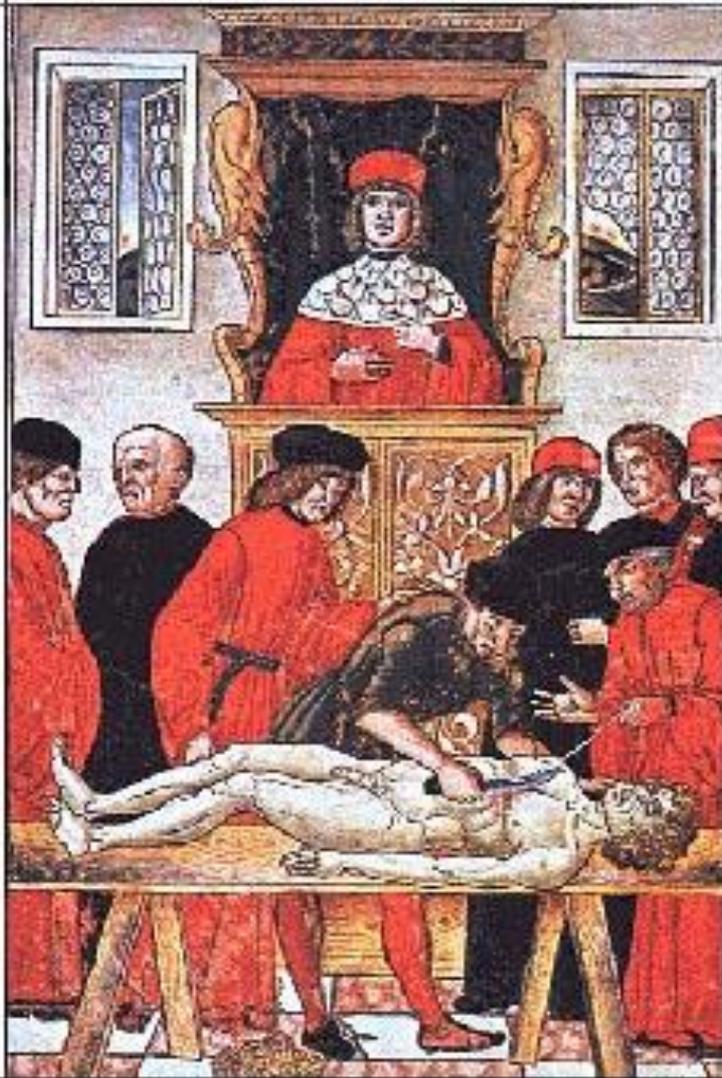
“The problem of normal variation is a lifelong one for the radiologist, and the mark of his experience is often his ability to recognize a wide range of these entities. Cataloging and describing normal variants demonstrated by roentgenology is of more than academic interest, for recognition of the abnormal first requires full knowledge of the normal. Variation is inseparably related to the study of normal anatomy. In addition, the error of overdiagnosis of a normal variation as evidence of pathology may be more serious than omission, and may lead to needless and harmful therapy.”

Theodore Keats: Atlas of Normal Roentgen Variants That May Simulate Disease; preface to the first edition, 1973

Sources of variation

- Congenital
- Variable growth
- Projection
- Technical
- Acquired
- Reporting terminology

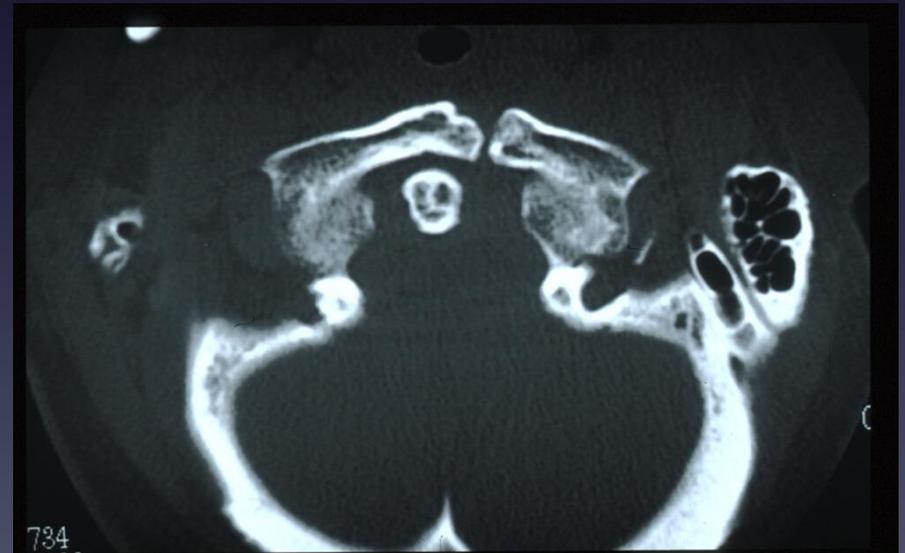
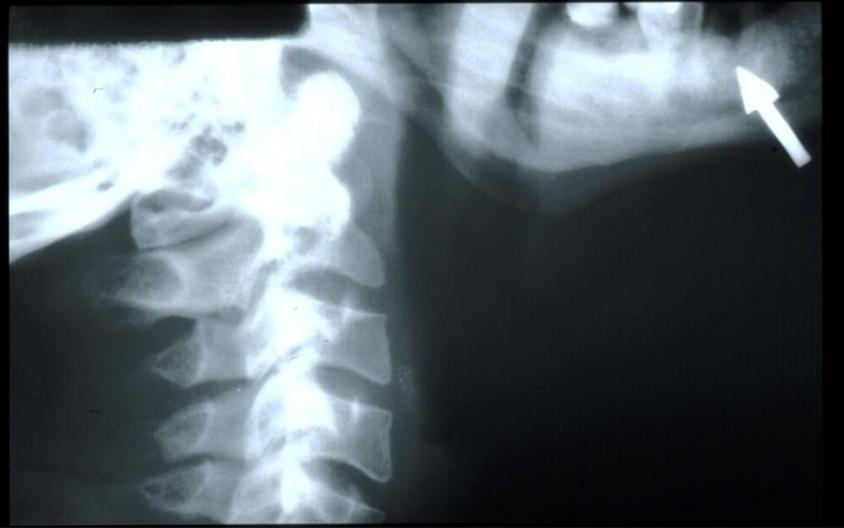
"The human features and countenance, although composed of some ten parts or a little more, are so fashioned that among so many thousands of men there are no two in existence who cannot be distinguished from one another. Book 7, Sect 8." Pliny the Elder, AD 23-79.



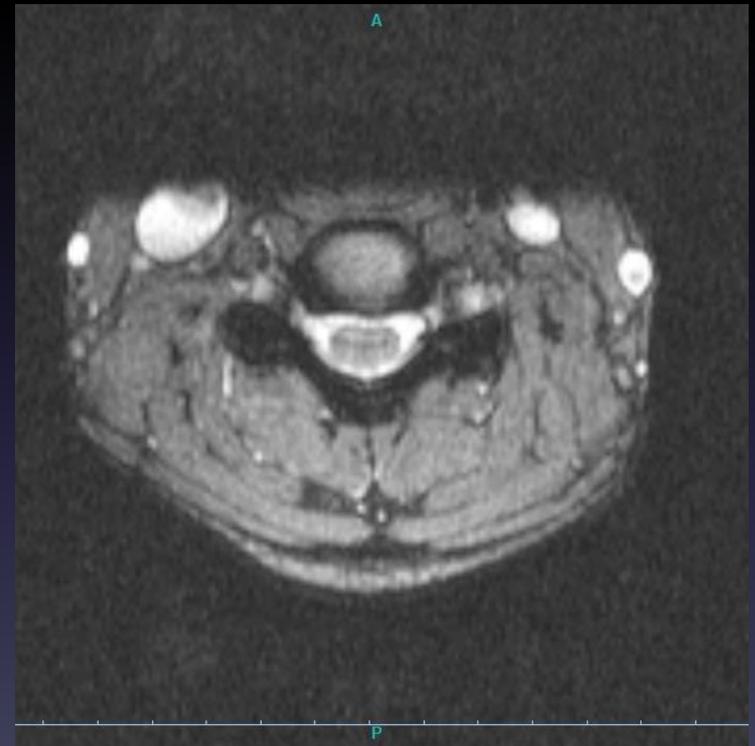
Pain following fall; read as fx



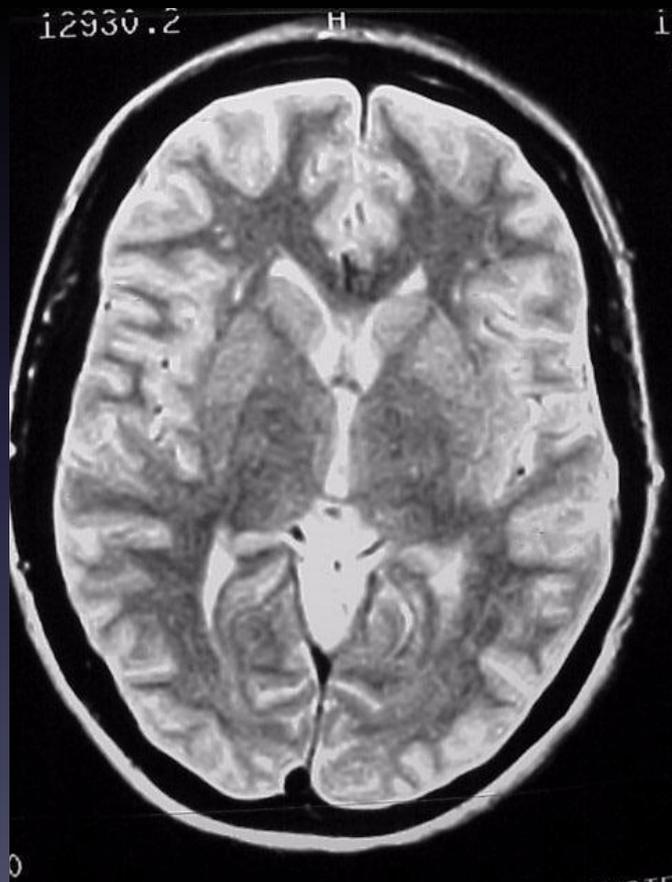
“Fx of C-1” - ununited apophysis



30 yo s/p MVA: "HNP C5-6"



40 yo F, MVA, no property damage, claims concussion and traumatic brain injury. MRI "mult sites of encephalomalacia due to injury" → Virchow-Robin Spaces



NI wedging at apex of thoracic kyphosis
called compression fx



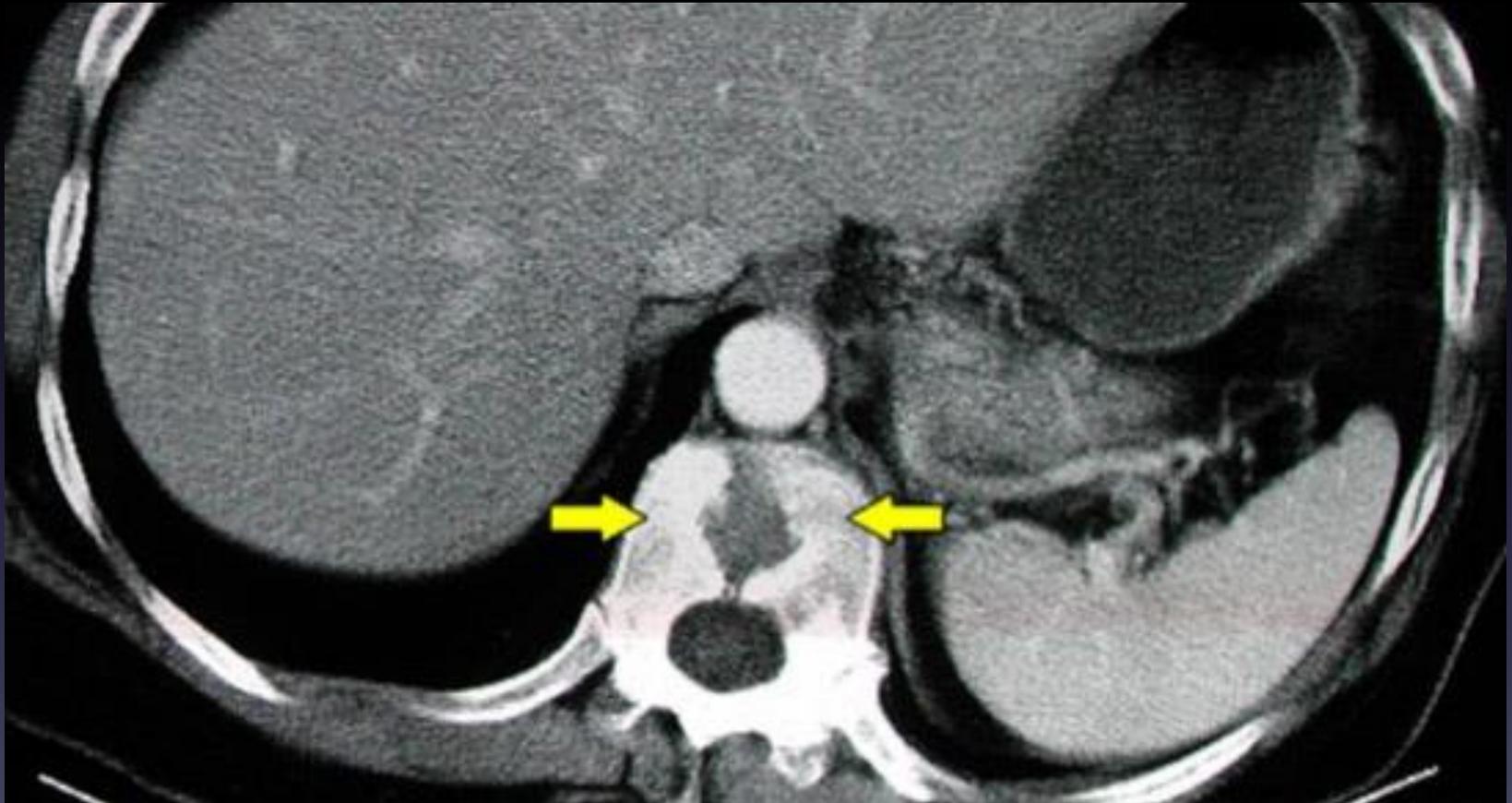
Limbus Vertebrae



Said to represent a fracture by the MD at walk-in clinic



Notochord Remnant called fracture



“Things are seldom what they seem;
Skim milk masquerades as cream.”

Gilbert and Sullivan; HMS Pinafore

Take home points:

- The radiology report may indicate findings that can be interpreted quite differently.
- A “second opinion” can provide a valuable contribution.
- Normal variants can be mistaken for significant pathology.