71 yo woman with neck pain and RA

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Axial T2-FSE
Basilar Invagination
McRae Line: basion to opisthion

Tip of odontoid process: normally ~5 mm below McRae line

Basilar invagination diagnosed when tip crosses line
Basilar Invagination

Definition: Craniocervical junction abnormality where the tip of the odontoid process projects above the foramen magnum

Causes
- Congenital
  - osteogenesis imperfecta
  - Klippel-Feil syndrome
  - achondroplasia
  - Chiari I malformation/Chiari II malformation
  - cleidocranial dysostosis
  - Schwartz-Jampel syndrome 2
- Acquired
  - rheumatoid arthritis
  - Paget disease
  - hyperparathyroidism
  - osteomalacia/rickets

Management
- Based on symptoms – if necessary, surgical anterior decompression and posterior stabilization
References