History
Teenager involved in a motor vehicle accident.

Diagnosis
Hangman's Fracture, Effendi Type I

Discussion
Hangman fractures were initially described as the result of judicial hangings with a submental location of the knot of the noose but now this fracture is almost exclusively seen related to motor vehicle accidents. Fractures can occur anywhere in the ring of C2 and are usually asymmetric. Classification is determined by the displacement of the body and inferior facets of the axis. Type I is characterized by nondisplacement. In Type II the body of the axis is tilted or displaced anteriorly with asymmetry of the C2-C3 disc space. Anterior tilting or displacement of the axis body and locking of the C2-C3 facets represents a Type III injury. Hangman fractures are associated with concussive brain injuries, facial injury, tracheal or laryngeal injury, chest trauma and vertebral artery dissection; cord injury is unusual since the fracture is intrinsically decompressive.

Findings
CT-Oblique fracture extending from the ring into the postero-inferior margin of the body of the axis. The body of the axis anterior to the fracture is not displaced and the C2-C3 disk space is normal. MR-Fracture is evident but no cord compromise.

Reference
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