

Spine Case 22

EXAM: CT brain, and total spine

INDICATION: 38 yo s/p fall approx 20ft onto his buttocks, no LOC. C/o left shoulder and lower back pain. Patient has GSC 15, remembers events, no SOB.

TECHNIQUE: Axial CT scan images were performed from the foramen magnum to the vertex without administration of intravenous contrast. Contiguous axial images of the cervical, thoracic, lumbar spine were obtained from the skull base through the sacrum. This data was reconstructed into thinner slices and 2D multiplanar reformations obtained.

FINDINGS:

CT head:

Cortical sulci and ventricular system are within normal limits. There are no focal masses or midline shift. There is no acute hemorrhage. There are no abnormal intra-axial or extra-axial fluid collections. Maxillary and frontal sinus mucoretention cysts. Mucoperiosteal thickening involving the ethmoid air cells bilaterally. Mastoid air cells are clear. The calvarium is unremarkable.

CT cervical spine:

The cervical vertebrae are normal in height and alignment. There is no evidence of fracture or subluxation. The intervertebral disk spaces are well preserved. The facet joint alignment is anatomic bilaterally. Vertebral soft tissues are unremarkable.

C3-C4: Minimal disc protrusion with partial effacement of the ventral thecal sac. No significant central canal or neural foramina narrowing.

C4-C5: Disc bulge with associated central protrusion. Mild effacement of the ventral thecal sac. There is mild central canal narrowing which measures approximately 8.5 mm in AP dimension. No neural foraminal narrowing.

C5-C6: Disc bulge without significant central canal or neural foraminal narrowing.

C6-C7: Disc bulge with associated central protrusion. There is effacement of the ventral thecal sac. There is no significant central canal or neural foraminal narrowing.

CT thoracic spine:

Vertebral body alignment is unremarkable. Vertebral body heights as well as intervertebral disc heights are well-maintained. There are no acute fractures or subluxations. Facet alignment is anatomic bilaterally. The central canal and neural foramina are patent.

CT lumbar spine:

Comminuted burst fracture of the L1 vertebral body with approximately 30 to 40% loss of its anterior height. There is secondary retropulsion of the superior posterior aspect of the vertebral body into the central canal. The retropulsed fragments extend approximately 8.5 mm into the ventral canal. There is secondary narrowing of the thecal sac which measures approximately 7 mm in its narrowest portion. Nondisplaced fracture involving the right L1 lamina. Minimally displaced fracture involving the right L1 transverse process.

L2-L3: Disc protrusion with secondary partial effacement of the ventral thecal sac. There is mild central canal narrowing which measures approximately 9 mm in AP dimension. No significant neural foraminal narrowing.

L3-L4: Disc bulge with associated mild flattening of the ventral thecal sac. There is no significant central canal or neural foraminal narrowing.

L4-L5: Disc bulge with flattening of the ventral thecal sac. There is no significant central canal or neuroforaminal narrowing.

L5-S1: Disc bulge with associated flattening the ventral thecal sac. There is minimal central canal narrowing which measures approximately 9.5 mm in AP dimension. There is moderate right and moderate to severe left neural foraminal narrowing.

IMPRESSION:

1. L1 burst fracture with associated retropulsed fragments into the ventral central canal which is narrowed. Findings are concerning for cord compression and further evaluation with an MRI is recommended. Associated L1 right lamina and transverse process fractures.
2. No acute fracture of the cervicothoracic spine. Multilevel degenerative spine disease as described in detail above.
3. No acute intracranial process.

REPORT CONTAINS Findings THAT MAY BE CRITICAL TO PATIENT CARE.



