Teaching NeuroImages:

Rib penciling and intraspinal dislocation of rib heads in type 1 neurofibromatosis

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Figure Imaging

(A) X-ray shows scoliosis with rib penciling (white arrows). (B) Axial CT image at the level of T5 shows dislocation of fifth rib head into the spinal canal. (C) Axial T2-weighted MRI at the level of T6 shows dislocation of sixth rib head into the spinal canal. (D) Postoperative X-ray shows instrumented fusion with excision of rib heads.

An 11-year-old girl with 10 cafe-au-lait macules >5 mm in diameter with axillary freckling presented with progressive deformity of spine. Therefore diagnosis of neurofibromatosis 1 was made. Clinical examination revealed left thoracic scoliosis. Plain radiograph showed left dystrophic thoracic scoliosis with penciling of left fifth and sixth ribs (figure, A). CT scan and MRI showed intraspinal dislocation of double rib heads (figure, B and C). The patient underwent laminectomy and excision of dislocated rib

heads with posterior instrumented fusion (figure, D). Dislocation of rib heads into spinal canal is extremely rare in type 1 neurofibromatosis and this anomaly should be recognized to prevent neurologic complications during surgery.¹

REFERENCE

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Disclosure: Dr. Krishnakumar performs spine surgery (80% clinical effort). Dr. Renjitkumar performs spine surgery (80% clinical effort).

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