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Mitchell S.V. Elkind, MD, MS

Teaching NeuroImages: Bilateral pedicular fractures in severe lumbar dural ectasia

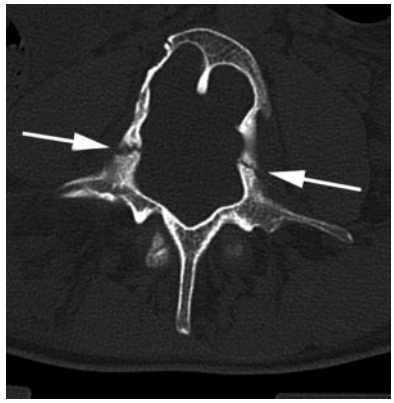
Shevantha Rosa, FRCR
Indran Davagnanam, FRCR

Correspondence & reprint requests to Dr. Davagnanam: indrandavagnanam@gmail.com

Figure 1 Sagittal CT

Imaging shows evidence of dural ectasia with posterior vertebral body scalloping (arrowhead). A mild L4/5 anterolisthesis is present.

Figure 2 Axial CT



The lumbar pedicles were elongated and thinned with bilateral pedicular fractures (arrows). The fractures showed no edema on MRI suggesting chronic nonunited fractures.

A 20-year-old man with neurofibromatosis I presented with back pain and altered sensation in the lower limbs without a radicular distribution and normal power. He subsequently developed urinary retention and reduced sensation to the level of T10. MRI and CT examinations performed to exclude cord compression demonstrated dural ectasia (expansion of the dural sac) resulting in elongated lumbar pedicles and bilateral chronic fractures (figures 1 and 2). Pedicular fractures are a recognized but rare complication of dural ectasia.[1] It is postulated that pedicular weakness secondary to thinning relate to dural ectasia and result in stress fractures.[2]

AUTHOR CONTRIBUTIONS

Dr. Rosa: collation of images, literature search, manuscript, and submission. Dr. Davagnanam: content ideas, reviewing and editing, corresponding author.

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From The Lysholm Department of Neuroradiology, National Hospital for Neurology & Neurosurgery, London, UK.
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