

Cysticercosis Presenting as an Isolated Cervical Intramedullary Lesion: A Rare Benign Condition at a Dangerous Location

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The intramedullary lesions affecting cervical cord usually present with significant neurological deficits and the differentials on magnetic resonance imaging (MRI) can be neoplastic, infective, vascular, or demyelinated.¹ We are providing imaging description of an isolated cervical intramedullary cysticercosis, which is very rare, with only 24 cases reported to date.

A 21-year-old male patient presented with complaints of neck pain of 3-month duration followed by asymmetric spastic quadriparesis (power ½ in both upper limbs, 4 +/5

in lower limbs), along with graded sensory loss below C4 dermatome, and bladder and bowel involvement of 2-month duration; Modified Japanese Orthopedic Association (mJOA) score at presentation was 8.

Preoperative MRI revealed a well-circumscribed intramedullary T1 hypointense, T2 hyperintense lesion affecting cervical cord (►Fig. 1). Intraoperatively, lesion was deep seated and approached by midline myelotomy. The solid cystic with solid part was well circumscribed, grayish white, firm, moderately vascular, and had clear

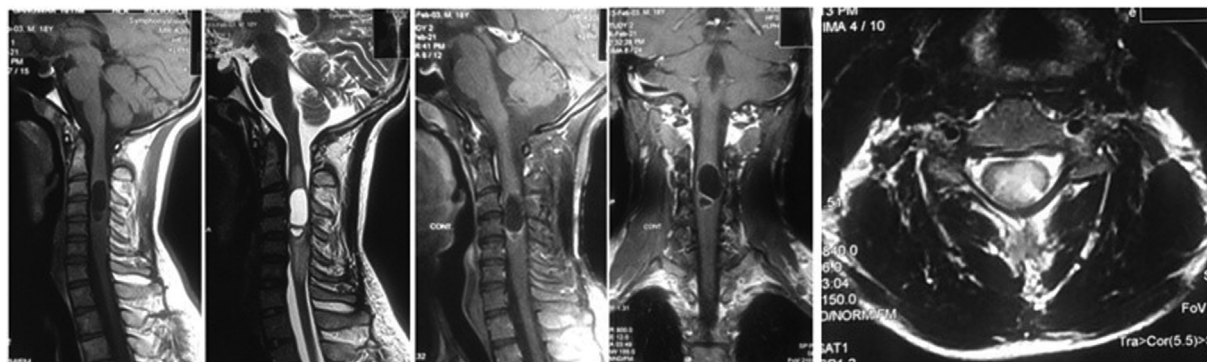


Fig. 1 Magnetic resonance imaging spine suggestive of well-circumscribed intramedullary T1 hypointense, T2/short tau inversion recovery hyperintense lesion (30 × 11 mm) in the cervical cord from C3 to C5 levels. There is a small hypointense septum at the lower end of the lesion separating main lesion with small hyperintense portion at base. Lesion was causing widening of the cervical cord at the involved level, with perilesional edema extending cranially and caudally to the lesion. On T1 contrast, peripheral rim enhancement of the lesion was noted.

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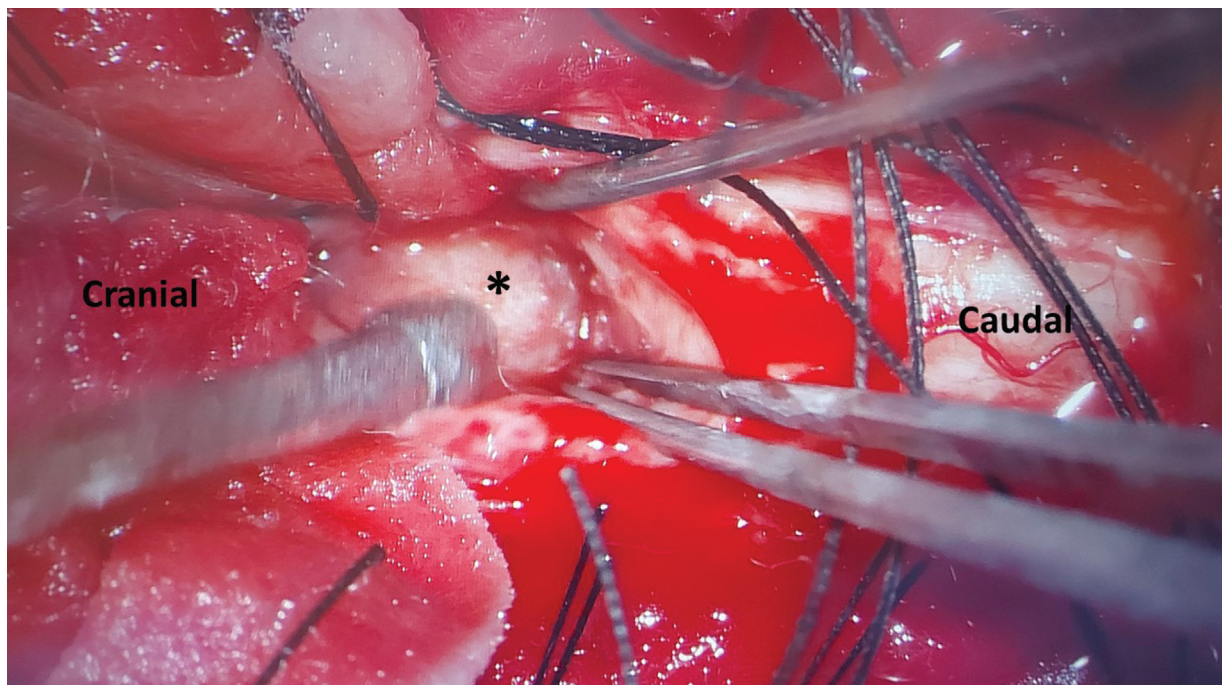


Fig. 2 Intraoperative image showing well-defined intramedullary lesion (*) with clear planes with surrounding cord parenchyma.

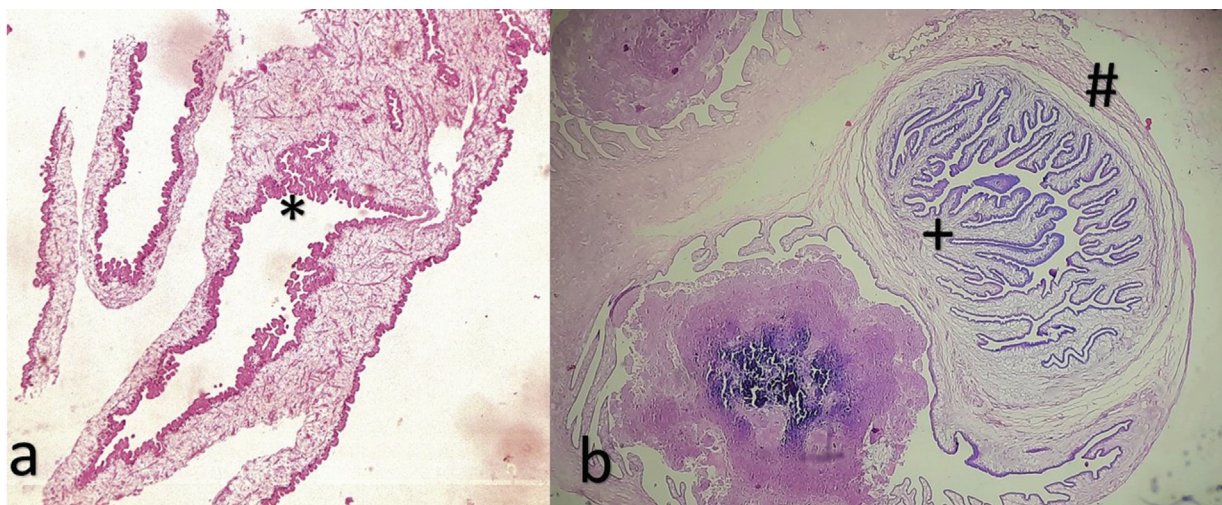


Fig. 3 (a) Hematoxylin and eosin (H&E), 4 ×, showing cysticercus comprising of an eosinophilic membrane with duct-like invaginations (*). (b) Another H&E 40× slide showing a full cysticerci larva (#) with thin fibrous cyst wall (+) surrounding it.

plane with surrounding cord parenchyma. Cystic part contained straw-colored fluid. Lesion was resected in piecemeal manner (►Fig. 2). The immediate postoperative neurological status was unchanged. Histopathological examination was consistent with cysticercosis (►Fig. 3).

No evidence of cysticercosis in brain, orbits, or elsewhere in the body could be demonstrated. He was treated with oral

dexamethasone for 15 days followed by gradual tapering along with oral albendazole, started 2 days after inception of dexamethasone and continued for 4 weeks. Patient's neurological status improved significantly well over a period of next 3 months, with mJOA score of 13. Postoperative MRI at 1 month demonstrated complete resolution of lesion (►Fig. 4).

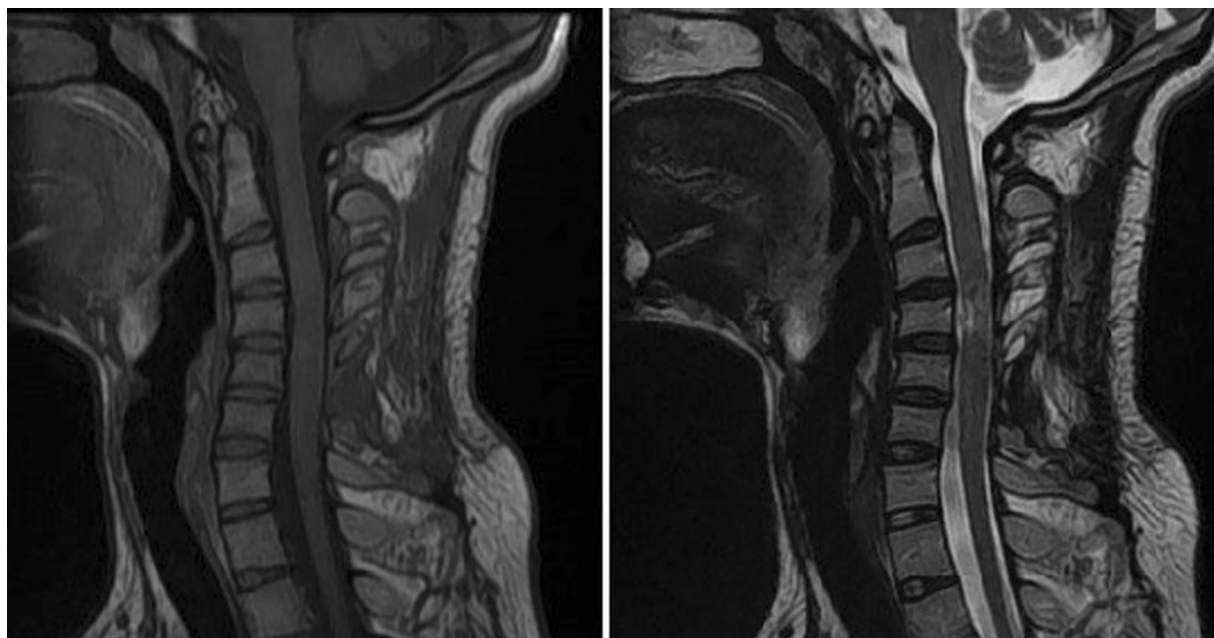


Fig. 4 One month postoperative magnetic resonance imaging (MRI) T1 and T2 sagittal images. No evidence of any hypointensity compared with preoperative T1 image. T2 image showing hyperintense signals at C4 level suggestive of gliotic changes. Significant parenchymal expansion can be noted compared with thinned-out parenchyma noted on preoperative MRI images.

Spinal involvement by cysticerci is rare, and intramedullary lesions are rarer compared with extramedullary lesions; thoracic spine is commonly involved,^{2,3} followed by cervical.² Surgical debulking and anthelmintics can cure the lesion.^{4,5}

Conflict of Interest

None declared.

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