Teaching NeuroImage: Antibody-Negative Giant Subarachnoid Neurocysticercosis With Isolated Motor Impairment

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A 54-year-old man from rural China presented with a four-month history of proximally-progressive weakness in the left upper limb, where diminished strength and hyperreflexia were noted. Head MRI showed a 5.5×4.8×4.6-cm right frontoparietal septate cyst with an enhancing mural nodule (Figure 1A–C). CT revealed foci of calcification (Figure 1D). Diagnosis of neurocysticercosis was suspected given the imaging findings suggesting a loculated cysticercus containing calcification and an enhancing scolex. Interestingly, ELISA-based detection of cysticercus-
specific antibodies in CSF was unsuccessful. CSF protein and cell count were also normal. During exploratory surgery, clear fluid with yellow nodules and daughter cysts was removed from the subarachnoid cyst, revealing foci of granulomatous inflammation on brain parenchyma (Figure 2). Pathologic examination identified *Taenia solium* larvae (eFigure 1). Giant subarachnoid cysticerci over the cerebral convexities are very rare. Absence of CSF antibodies in patients with radiographic findings suggestive of subarachnoid neurocysticercosis should not preclude its diagnosis.

**Figure 1 Neuroimaging findings.** Axial (A), sagittal (B), and coronal (C) views of contrast-enhanced T1-weighted MRI showed a cystic lesion with nodular enhancement (red arrowheads) and internal septation (white arrowheads). Note the mass effect evidenced by a slight midline shift. (D). Non-enhanced CT showed eccentric foci of calcification (yellow arrowhead).
Figure 2 Macroscopic findings. (A). A cyst of high pressure was readily visualized upon opening of the dura. (B). Nodular contents and daughter cysts were extracted from within. (C). One daughter cyst was sent for pathologic examination. (D). Foci of granulomatous inflammation (blue arrowheads) were noted on adjacent brain parenchyma.
REFERENCES


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