

Cerebral hydatid cyst showing pathognomonic daughter cysts

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Ann Indian Acad Neurol 2011;14:217-8

A 45-year-old woman presented with intermittent, generalized, moderate intensity headache for last 6 months. She had no history of associated vomiting, diplopia, seizures, or fever. The central nervous system (CNS) examination was normal, except for the presence of papilledema on fundoscopic examination. Routine laboratory investigations were within normal limits. MRI of the brain showed multiple, spherical, homogeneously cystic lesions having well-defined smooth wall. The cyst fluid was isointense with CSF on T₁- and T₂-weighted images [Figure 1]. Also noted were the daughter cysts within cystic lesion in the right frontoparietal region [Figure 2]. Post gadolinium-contrast image revealed minimal rim enhancement [Figure 3]. No calcification or perilesional edema was seen. Based on neuroimaging findings, the patient was diagnosed as having cerebral hydatid cysts. USG of the abdomen and CT of chest did not reveal any cysts within the liver and lungs, respectively. The patient was operated and histopathology was consistent with *Echinococcus granulosus* infestation.

Cerebral hydatid disease is a rare parasitic infestation caused by larval stage of *E. granulosus* and *E. multilocularis*, accounting for 2% of all intracranial space occupying lesions even in high endemic countries.^[1] Isolated cerebral hydatid disease is rarely reported and the exact incidence is unknown.^[2] Children are most commonly affected with symptoms of raised intracranial tension and focal neurologic deficits. Multiple intracranial cysts are rare.^[3] MRI reveals well-defined, smooth, thin-walled, spherical, homogeneous cystic lesions. Appearance of the cyst fluid is similar to that of CSF on T₁- and T₂-weighted images. The cyst wall usually shows a rim of low signal intensity on both T₁- and T₂-weighted images. Rim enhancement, perifocal edema, and calcification are rare features. The presence of daughter cysts is considered pathognomonic, but rarely

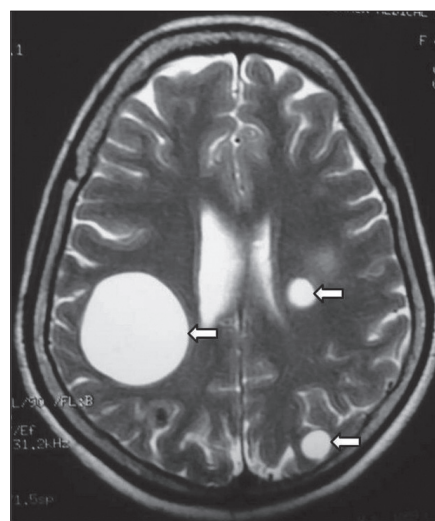


Figure 1: Axial T₂-weighted image showing multiple, spherical, homogeneously cystic lesions having well-defined, smooth wall (arrows)



Figure 2: Axial T2 FLAIR image showing well-defined, large cyst in the right frontoparietal region showing pathognomonic daughter cysts within (arrowheads)

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Figure 3: Axial T₁-weighted image after gadolinium contrast showing minimal rim enhancement (arrows)

reported. The differential diagnosis includes pyogenic or fungal abscess, cystic astrocytoma, arachnoid cyst, and porencephalic cyst.^[4,5]

References

1. Tlili-Graies K, El-Ouni F, Gharbi-Jemni H, Arifa N, Moulahi H, Mrad-Dali K, *et al.* Cerebral hydatid disease: Imaging features. *J Neuroradiol* 2006;33:304-18.
2. Karak PK, Mittal M, Bhatia S, Mukhopadhyay S, Berry M. Isolated cerebral hydatid cyst with pathognomonic CT sign. *Neuroradiol* 1992;34:9-10.
3. Gupta S, Desai K, Goel A. Intracranial hydatid cyst: A report of 5 cases and review of literature. *Neurol India* 1999;47:214-17.
4. Bukte Y, Kamanoglu S, Nazaroğlu h, Ozkan U, ceviz A, Simsek m. cerebral hydatid disease: CT and MR imaging findings. *Swiss Med Wkly* 2004;134:459-67.
5. Tuzun M, Altinors N, Arda IS, Hekimoglu B. Cerebral hydatid disease CT and MR findings. *Clin Imaging* 2002;26:353-7.

How to cite this article: Vidhate MR, Singh D, Sharma P, Singh MK. Cerebral hydatid cyst showing pathognomonic daughter cysts. *Ann Indian Acad Neurol* 2011;14:217-8.

Received: 19-01-11, **Revised:** 09-03-11, **Accepted:** 31-03-11

Source of Support: Nil, **Conflict of Interest:** Nil

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