



Recurrence of a Cerebral Hydatid Cyst

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Abstract

Our case is an example of primary hydatid cyst disease with a parietal cystic lesion with well-defined borders in the right parietal lobe on MRI. Definitive treatment is complete removal of the cystic lesion by surgery followed up with medical treatment with Albendazole to avoid recurrence. Since our patient refused surgery, she was given 15mg/kg/day Albendazole. As stated above, our patient is still under clinical follow-up for 12 months by Neurology and Infectious Diseases department. In conclusion, hydatid cyst should be included in the differential diagnosis for cranial cystic masses in patients especially from endemic countries.

Keywords: Hydatid cyst, brain, MRI

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Case Report

A 43-year-old female patient presented with complaints of headache, numbness in her left side and involuntary movements. Medical history of the patient revealed previous surgery for cerebral hydatid cyst resection 18 years ago. She admitted to being treated with a drug of which she couldn't recall its name for six months and also reported the results of further investigations conducted as of that time to look out for any other location of the disease outside the brain as unremarkable. Neurological examination performed was positive for a slight hemiparesis and hemihypoesthesia, babinski reflex and an increased deep tendon reflex on her right side compared to the left side. Other physical examination findings were normal. Computed Tomography Imaging of the thorax and abdomen were also normal. Electroencephalography showed epileptiform activities in the left temporal and parietal regions of the brain. Magnetic Resonance Imaging (MRI) of the brain with Contrast demonstrated a T1 hypointense and T2 hyperintense well defined, spherical, 5X4 cm sized cystic lesions in the left hemisphere of the brain (Figure 1). Based on previous medical history and cranial MRI findings a diagnosis of recurrent hydatid cyst was arrived at. Surgery was recommended for definitive diagnosis and treatment however the patient refused surgical treatment. She was therefore started on albendazole 15mg/kg/day for 8 months cure. The patient was clinically stable and in the second MRI after initiating albendazole therapy, a minimal regression and non expansion of the cystic lesions differentiated them from a tumor or brain abscess (Figure 2). The patient is still under clinical follow up by Neurology and Infectious Diseases departments.

Cerebral cyst hydatid disease is an extremely rare entity clinically characterized by the structure of the cyst, size, its location in the cranium and effect on other cranial structures [1]. Symptoms are usually expressed late due to the slow growth of cerebral cystic lesions [2]. Neurological findings are usually associated with an increase in intracranial pressure [3]. Headache, nausea and vomiting are among the early symptoms that are commonly encountered [1]. Diagnosis is made based on clinical and laboratory findings together with imaging studies. Computed tomography (CT) scan alone or with MRI of the brain has been reported to be useful in determining preoperative diagnosis and treatment. The lesions are generally single with multiple lesions being extremely rare [3,4]. Localization of these lesions

in the cranium varies with the supratentorial, middle cerebral artery feeding areas such as the parietal region being the most common areas where they are found[4,5].

Cerebral hydatid cyst disease is classified into primary and secondary depending on the nature of the cystic lesions [6]. The primary type is more common with soliter and fertile characteristics. They occur as a result of the escape of embryos via the systemic filters of the body[6]. The secondary type is uncommon and occurs after rupture of the cystic lesions leading to embolization of the scolex[6]. They are generally multiple and infertile.

Our case is an example of primary hydatid cyst disease with a parietal cystic lesion with well-defined borders in the right parietal lobe on MRI. Definitive treatment is complete removal of the cystic lesion by surgery followed up with medical treatment with Albendazole to avoid recurrence. Since our patient refused surgery, she was given 15mg/kg/day Albendazole. As stated above, our patient is still under clinical follow-up for 12 months by Neurology and Infectious Diseases department.

In conclusion, hydatid cyst should be included in the differential diagnosis for cranial cystic masses in patients especially from endemic countries.

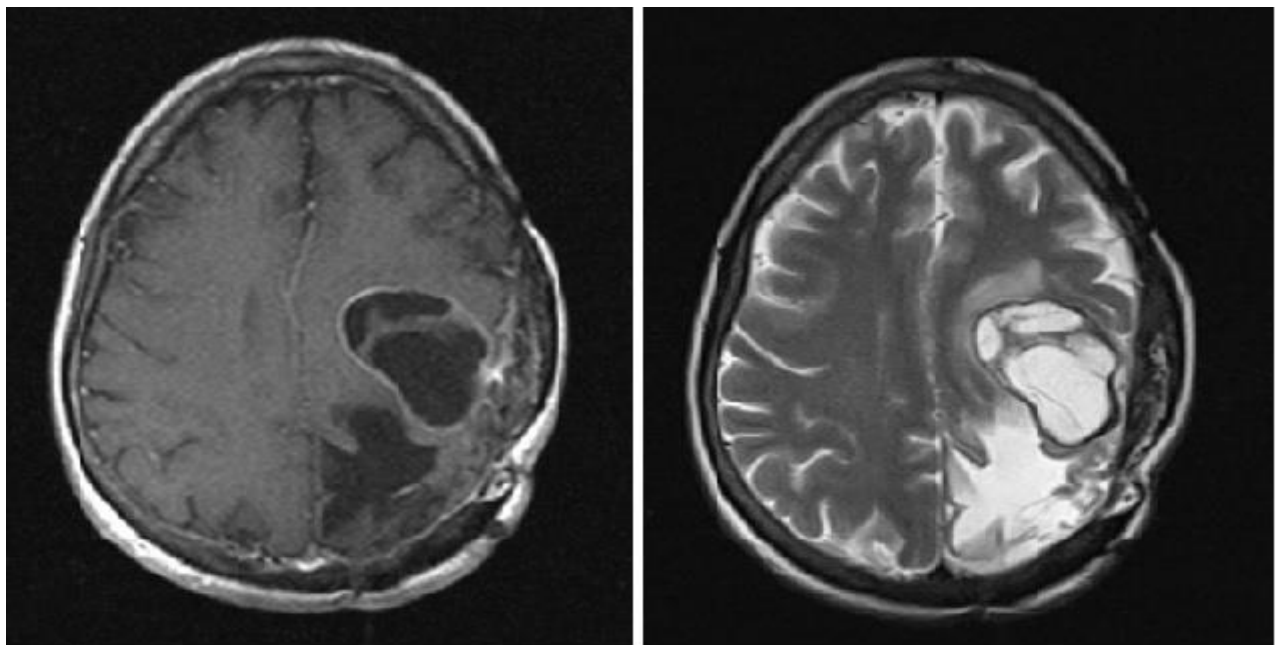


Figure 1. Cranial MR Imaging Findings, June 2013; Contrast axial T1-weighted MR image of the brain shows well defined, spherical, hypointense cystic lesions. Axial T2-weighted MR defined homogeneously hyperintense cysts with surrounding edema.

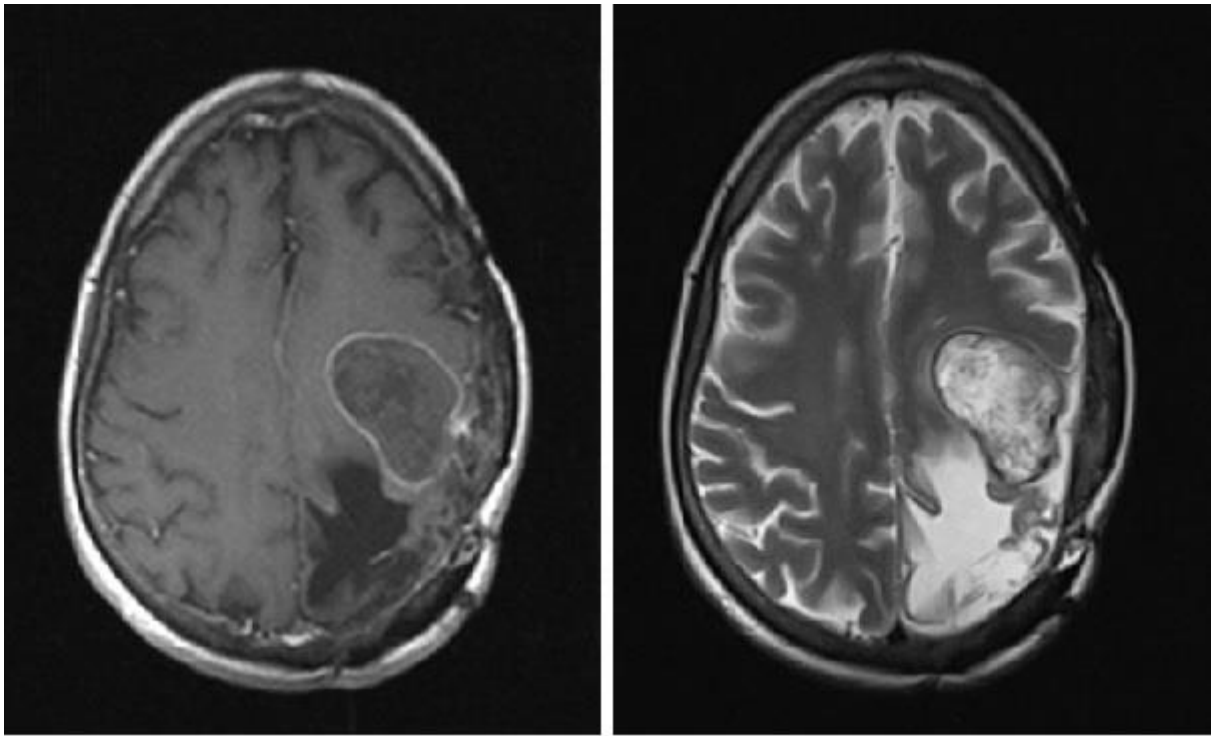


Figure 2. Cranial MR Imaging Findings, February 2014; Findings were similar to previous findings seen in June 2013. The patient was clinically stable and a minimal regression and non expansion of the cystic lesions differentiated them from a tumor or brain abscess.

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