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RADIOLOGY IMAGES

Recurrent neurocysticercosis

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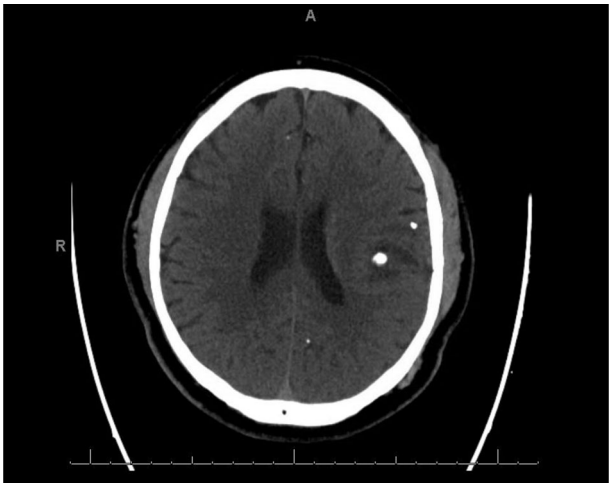
Neurocysticercosis is fairly common, with up to 5,000 new cases in the USA every year (1). New onset neurological symptoms in patients with a history of neurocysticercosis should make the physician suspect recurrent neurocysticercosis as a potential etiology, as a considerable number of patients suffer from late neurologic sequelae (2). Radiological imaging helps in the diagnosis. CT has a better sensitivity to detect calcifications, but MRI is the most accurate imaging modality. Four recognized stages on MRI are vesicular, colloid vesicular, granular nodular, and nodular calcified. Cystic lesions demonstrating the scolex as a bright nodule, known as the 'hole-with-dot', is pathognomonic (3). FLAIR images have the maximum rate of scolex detection, whereas the last gadolinium-enhanced T1-weighted series identifies the maximum number of lesions, which can influence the management plan (3). Treatment depends on the location and number of lesions, which usually involves antiepileptic therapy and a short course of steroids with a rapid taper.

Case presentation

A 52-year-old Hispanic male with a history of seizures secondary to neurocysticercosis diagnosed and treated about 10 years ago came to ED with complaints of difficulty speaking and right-sided weakness. His home medications included topiramate. On examination, he had aphasia and partial complex seizure–like activity involving the right extremities. A CT scan of the head showed scattered parenchymal calcifications, including a 7 mm calcified area in left parietal, compatible with prior history of neurocysticercosis. MRI of the brain revealed a 1 cm ring enhancing calcified lesion with surrounding edema within the left parietal lobe with the appearance compatible with an active cysticercosis lesion. There were other areas of calcification within the brain without edematous change or enhancement, likely secondary to healed areas of cysticercosis. The patient was treated with a 2-week course of albendazole 400 mg BID and Decadron 4 mg BID and was advised to follow-up with neurology to taper steroids. In addition to topiramate, he was also prescribed levetiracetam to prevent further seizures.

CT Head: Multiple calcifications from neurocysticercosis, largest calcification of 7 mm in left parietal lobe.



MRI Brain AX T1 + C1 Flair: 1 cm ring enhancing calcified lesion within the left parietal lobe with the appearance compatible with an active cysticercosis lesion.

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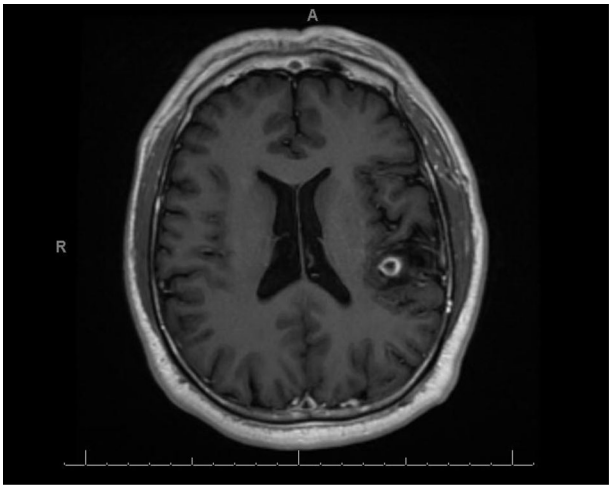

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