

Sparganosis of the Brain

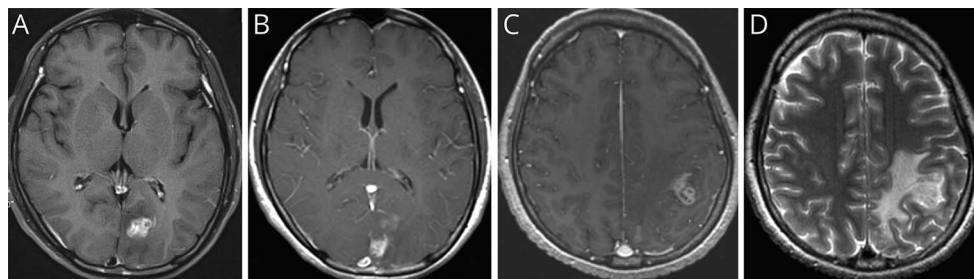
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Figure Serial Brain MRI and CT Scans Demonstrating the Migration of a Mass Lesion Over 10 Months



(A) Gadolinium-enhanced T1WI revealed a conglomerated enhancing mass lesion with central nonenhancing beaded structures in the left occipital lobe. (B) Three months later, brain MRI demonstrated the migration of the enhancing mass lesion with central nonenhancing beaded structures from the left occipital lobe to the left occipito-parietal lobe in T1WI with gadolinium. (C) Ten months later, brain MRI taken demonstrated additional migration of the enhancing mass lesion with central nonenhancing beaded structure from the left occipito-parietal lobe to the left parietal lobe in T1WI with gadolinium. (D) T2WI revealed widespread high-signal lesion surrounding the enhancing nodule in the left parietal lobe. (E) The CT scan revealed a hypodense lesion in the left parietal lobe.

A 43-year-old woman presented with severe headaches and vomiting to another hospital. Brain MRI revealed an irregularly enhancing mass lesion in the left occipital lobe (Figure, A). The patient, a defector from North Korea, had a history of drinking pond water and eating raw snake meat. She was advised to undergo surgery for a suspected brain tumor but refused further treatment after her headaches improved. Seven months later, she was found unconscious after a severe headache and generalized seizure. Neurologic examination revealed right inferior homonymous quadrantanopsia. Follow-up MRI scans showed that the mass had migrated from the left occipital to the left parietal lobe (Figure, B and C), with widespread perilesional edema (Figure, D and E). The differential diagnosis included a brain tumor or a parasitic infection. ELISA tests in CSF and serum detected antibodies against sparganum. After stereotactic biopsy confirmed an inflammatory granuloma, open craniotomy was performed and a live sparganum was removed (Video 1). Although rare, sparganosis should be suspected in patients with exposure to contaminated water or food, especially if imaging reveals migratory lesions.

Author Contributions

H.R. Park: drafting/revision of the manuscript for content, including medical writing for content; major role in the acquisition of data. S.H. Paek: study concept or design; analysis or interpretation of data.

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