## Japanese Encephalitis with Unilateral Thalamic Lesion: Clinical Pictures

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Here we present a case of Japanese encephalitis with an interesting MRI image. The patient is a previously healthy 27 years old male living around a hog farm. Initially, he went to a local hospital and was treated with Levofloxacin as a pneumonia infection. He presented with fever and headache for two days before he sought medical assistance. For two days, his symptoms didn't improve, and progressive consciousness declining was noted. Hence the family decided to transfer to our hospital for further evaluation.

On examination, his consciousness was stupor, cannot obey orders, and febrile. The pupils were equal with preserved light reflex. His muscle powers were symmetric bilaterally near his baseline. CSF examination showed normal opening pressure, elevated WBC count with 196 nucleated cells/mm<sup>3</sup>, normal

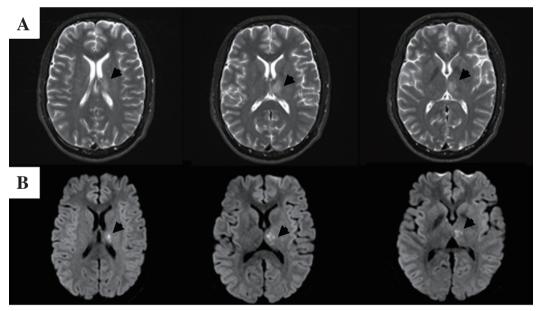


Figure 1. Brain MRI sequences with T2-weighted and fluid-attenuated inversion recovery (A) and DWI(B). The left medial thalamus lesion was enhanced on both views labeled by arrows.

From the <sup>1</sup>Department of Neurology, Changhua Christian Hospital, Changhua, Taiwan. Received July 20, 2021. Revised and Accepted September 9, 2021. Correspondence to: Chih Ming Lin, MD PHD, Department of Neurology, Changhua Christina Hospital. E-mail: josephsimion@gmail.com, 166110@cch.org.tw glucose, and elevated protein level. Brain MRI showed left medial thalamic hyperintensity on T2WI and DWI (Figure 1). Finally, the patient was diagnosed with Japanese encephalitis based on the positive result of the Nucleic acid amplification test.

The patient received supportive care with a gradual recovery of his consciousness and became able to obey commands. However, subtle learning problems persisted after one week.

Based on the literature review, the MRI or CT finding on thalamic lesions on imaging has high specificity, which could be an assistance tool diagnosis of Japanese encephalitis<sup>(1)</sup>. The typical Japanese MRI feature consists of hyperintense lesions on T2WI or DWI, and the thalamus was the most commonly involved region<sup>(2-4)</sup>. Although the majority of Japanese encephalitis had bilateral thalamic lesions, the unilateral lesion is uncommon<sup>(4,5)</sup>. Thus the case presented here provides a rare image of reference for Japanese encephalitis with a unilateral thalamic lesion.

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