Teaching NeuroImages: Japanese encephalitis

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Neurology® 2018;91:e2031-e2032. doi:10.1212/WNL.0000000000006553

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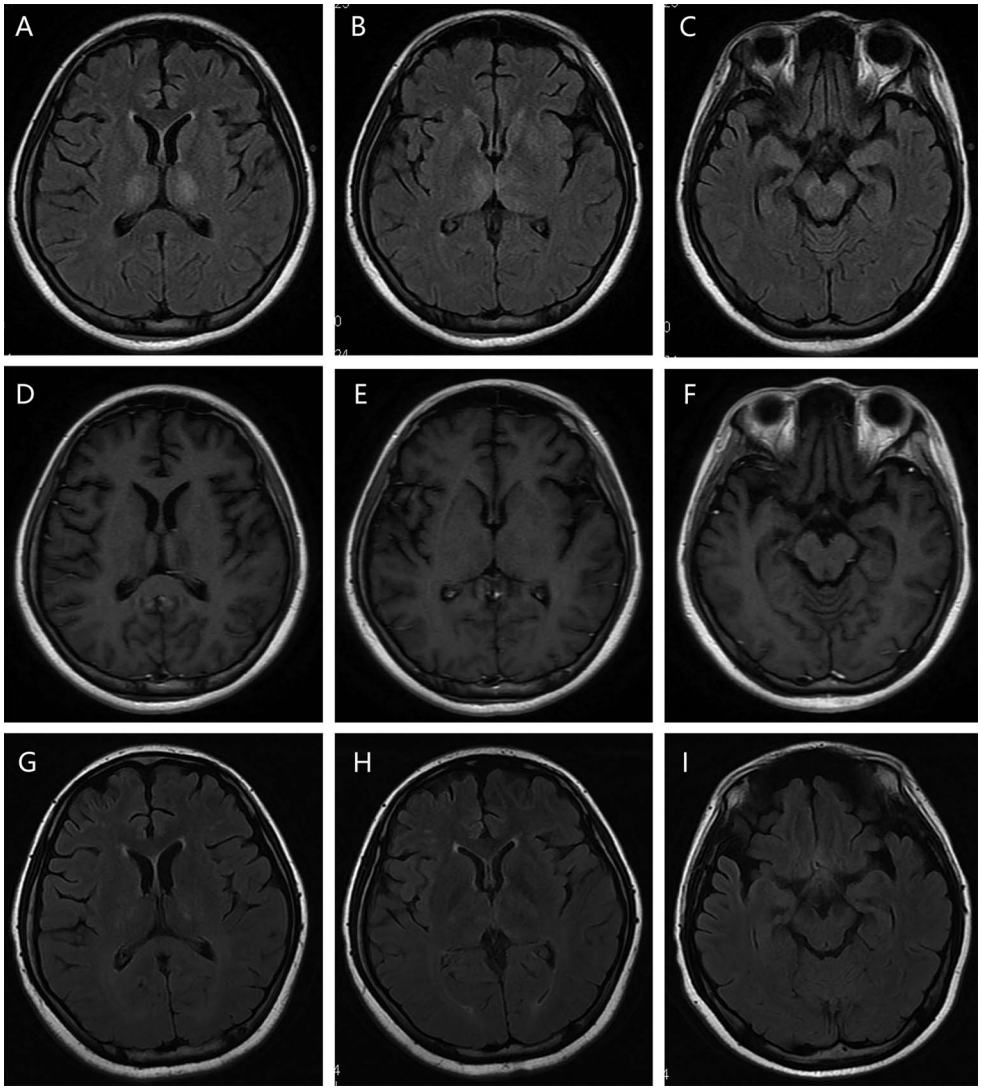
Figure MRI findings in Japanese encephalitis



(A–C) MRI brain axial T2 fluid-attenuated inversion recovery: symmetric hyperintensity in the thalami and substantia nigra. (D–F) MRI brain axial T1+ gadolinium: no contrast enhancement. (G–I) MRI brain axial T2 fluid-attenuated inversion recovery: The lesions had improved substantially after 3 months supportive care.

A 20-year-old woman presented with 3 days' history of fever and deteriorating consciousness. Physical examination showed positive Kerning sign. Brain MRI revealed hyperintensity involving bilateral thalami and substantia nigra (figure). Although CSF tests

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for white blood cells, protein, glucose, chlorine, and TORCH antibodies were normal, Japanese encephalitis (JE) virus immunoglobulin M antibody was positive. Therefore, a diagnosis of JE was made. The patient recovered from coma, and brain lesions were disappearing after 3 months supportive care (figure). As a common human viral encephalitis in the world, JE is usually very severe with high case-fatality rate.[1] Symmetric thalami and substantia nigra involvement are characteristic in JE.[2]

Author contributions

B. Zhang: study concept and design, acquisition and analysis of data, preparation of manuscript including figures. S. Liao: data analysis and interpretation. Y. Yang: acquisition and preparation of data. Z. Lu: study concept and design, data acquisition and interpretation, critical revision.

Study funding

No targeted funding reported.

Disclosure

The authors report no disclosures relevant to the manuscript. Go to Neurology.org/N for full disclosures.

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