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Tzu Chi Medical Journal

Pathology Page

Japanese Encephalitis

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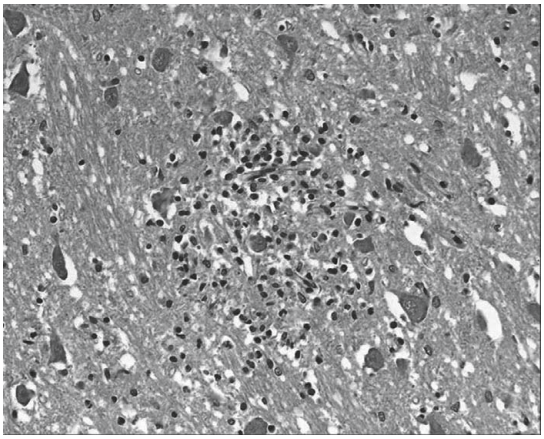

Fig. 1 — Histopathology shows neuronophagia and glial nodule formation (hematoxylin & eosin, 400×).

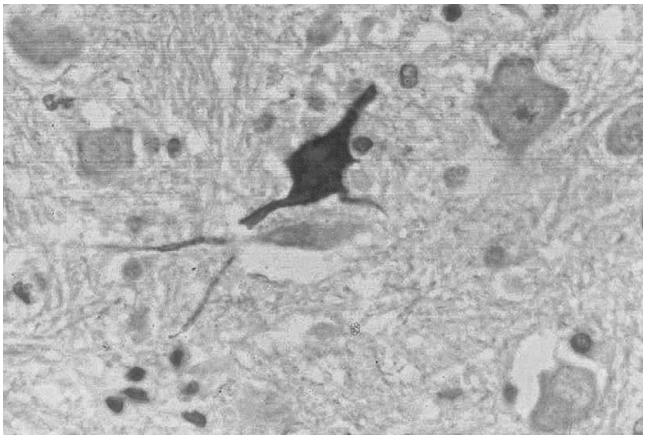

Fig. 2 — Immunohistochemistry stain shows Japanese encephalitis virus protein located in the cytoplasm of neuron and axon (AEC, 400×).

A 35-year-old man suffered from headache, fever and chills for more than 3 days. He visited our emergency department on June 19, 1998. He was given only some supportive drugs. Suddenly, he died at home at 6:30 am on June 21, 1998. Forensic autopsy proved viral encephalitis characterized by perivascular lymphocyte cuffing, neuronophagia and glial nodule formation (Fig. 1). Immunohistochemistry stain showed Japanese encephalitis virus protein located in the neuron and axon (Fig. 2).

Japanese encephalitis is an acute viral encephalomyelitis, caused by the Japanese encephalitis virus, a single-stranded RNA (*Flavivirus*). Clinically, the patient exposed to the viral vector (mosquito, *Culex tritaeniorhynchus*) manifests symptoms of high fever, headache and impaired consciousness. The ratio of disease manifestation is as low as 0.3%. Pigs, cows, horses, sheep and goats can be a reservoir of the virus. Japanese encephalitis is endemic in Southeast Asia and Oceania. Only a few patients have been recorded in Taiwan. Japanese encephalitis involves many portions of the supra- and infratentorial compartments, including the brain stem, hippocampus, thalamus, basal ganglion and white matter. The therapy is primarily conservative and supportive. Patients with the disease show a high mortality rate. (*Tzu Chi Med J* 2008;20(2):154)

References

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