

Pathology Page

Rabies**Yung-Hsiang Hsu****Department of Pathology, Buddhist Tzu Chi General Hospital, Hualien, Taiwan*

A 45-year-old woman was bitten on her left wrist and right leg by a puppy on April 29, 2002, in Hu-Nan Province, mainland China. At the time, she did not receive post-exposure prophylactic vaccination for rabies, and the puppy was killed without further examination. Afterwards, she visited her sister in Hualien, Taiwan, in May. On the morning of admission on June 29, 2002, symptoms of hydrophobia were noted. She turned her head away as someone handed her a glass of water. Finally, she died of adult respiratory distress syndrome. Autopsy proved rabies encephalitis (Fig. 1).

Rabies, a bullet-shaped RNA virus in the rhabdovirus group, is infective in all mammals, and the mortality rate is 100% once clinically manifested. Asymptomatic carriers are blood-sucking bats. In the United States, a few patients have been infected by bat bites. Taiwan has been rabies-free since 1958. It is of note that vaccination after a dog bite effectively prevents the manifestation of the virus infection. Histologically, Negri bodies, eosinophilic round- to oval-shaped inclusions measuring 1–7 μ m, in the cytoplasm of neurons, are pathognomonic. Negri bodies are seen most often in the pyramidal cells in the hippocampus, and also in the cerebral cortex, Purkinje cells of the cerebellum, and anterior horn neurons in the spinal cord. When compared with the severe clinical manifestations, the microscopic features of encephalitis are mild, in particular in areas with Negri bodies. (*Tzu Chi Med J* 2007;19(4):259)

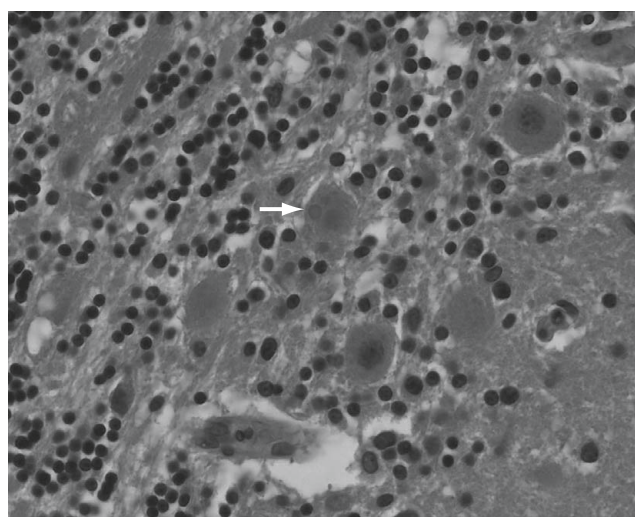


Fig. 1 — Negri bodies (arrow) in the cytoplasm of the cerebellum (hematoxylin & eosin, 400 \times).

References

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*Corresponding author. Department of Pathology, Buddhist Tzu Chi General Hospital, 707, Section 3, Chung-Yang Road, Hualien, Taiwan.
E-mail address: yhhsu@mail.tcu.edu.tw