Rabies Death Shows Need for Diagnostic Vigilance

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abies should be part of the differential diagnosis of any patient hospitalized with encephalitis of unknown etiology, and rabies should be considered in people who have been bitten by a dog, especially if the bite occurs in a country where canine rabies is enzootic, according to the Centers for Disease Control and Prevention in Atlanta.

CDC investigators stressed the importance of early diagnosis and treatment of rabies, and they further underscored the point by describing a case of rabies that occurred last year in Florida (MMWR 2005;54:767-9).

In February 2004, a 41-year-old man died after a 4-day hospitalization; it was 8 months after the man had been bitten by a dog in Haiti. From the time he was bitten to the onset of symptoms 8 months later, the man reportedly was in normal

health and felt well, said Tammy Blankenship, M.D., of the Broward County Health Department in Ft. Lauderdale.

A diagnosis of rabies was considered on the day before his death, but no antemortem samples were obtained for testing. On postmortem, the medical examiner described cytoplasmic inclusions consistent with Negri bodies. Postmortem samples of fixed brain tissue were sent to the CDC, where laboratory testing consequently confirmed a diagnosis of rabies. "The man arrived at the hospital emergency department with a 2-day history of dysphagia accompanied by hyperventilation and agitation when he attempted to swallow liquids. The problem had worsened by the time of admission; he was noted as 'almost phobic' to liquids. The patient reported having had a brief period of mild fever. He was able to swallow soft, solid food and did not complain of throat pain or discomfort," the CDC reported.

On the day the man was admitted to hospital, a neurology consultant concluded that the dysphasia etiology was unknown and recommended infectious disease, gastrointestinal, and pulmonary consultations. On his third day of hospitalization, the patient had a consistent

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fever of 103° F, with an elevated white blood cell count of $14.5/\mu$ L.

An infectious disease consultant recommended a lumbar puncture and testing for viral illness, especially rabies. The patient's wife said that her husband

had been bitten on the fingertip by a dog while he was visiting Haiti 8 months earlier. That the dog was still alive could not be confirmed.

On the fourth day of hospitalization, the patient experienced diplopia, became decreasingly responsive, went into cardiopulmonary arrest, and died.

"In the United States, mandatory vaccination and stray-dog control programs have virtually eliminated circulation of any canine rabies-virus variant among dogs. In comparison, occurrence of rabies in dogs remains a problem in Haiti and other developing countries," the CDC said.

The agency suggested that travelers avoid contact with dogs and other animals, and recommended rabies preexposure prophylaxis for those planning to stay 30 or more days in remote areas without access to medical care.

Health care professionals should keep mind that tests for rabies are available at CDC and can be arranged through state health departments.

"With the recent report from Wisconsin of a survivor of clinical rabies, rapid diagnosis of rabies is even more critical to managing a patient's clinical course, despite a poor prognosis," the CDC said.

"In addition to enabling consideration of novel interventions, advantages of early diagnosis include prompt implementation of ... infection control measures, thereby limiting the number of persons exposed or potentially exposed who require postexposure prophylaxis."

The CDC reported a total of 8 cases of rabies in 2004 (including 4 transplant-associated cases and 1 involving an immigrant), the highest number of human rabies cases reported since 10 were identified in 1956.

