

CASE 4

Submitted by: Paul G. Greenlee, D.V.M., Susan Morgello, M.D., and Carol K. Petito, M.D.  
Departments of Pathology (Neuropathology) Cornell University  
Medical College and the Animal Medical Center  
New York, New York 10021

Reference No.:

Clinical Abstract:

This 3-month-old female kitten was the full term product of an uncomplicated gestation in a domestic short-haired cat. Delivery was uneventful and the kitten, though somewhat small at birth, developed normally. At seven and nine weeks of age the kitten was seen for routine vaccinations, and at that time physical exam was unremarkable although the kitten was slightly small for age. At ten weeks of age, the kitten experienced several seizures described as tonic-clonic but recovered without therapy. One week later, the kitten again experienced seizure activity, was brought to her local veterinarian, and was hospitalized. Seizure activity continued during the first hospital day, and stopped without therapy by the second day. However, at that time the kitten displayed extreme rage, intermittently attacking anything in sight. She would hurl herself at her cage door whenever a person passed by. By the third hospital day the kitten was clinically normal and was discharged. Laboratory values remarkable during this admission were a hematocrit of 25% (normal 25-38%) and SGPT of 118 IU (normal 10-80 IU).

One week after discharge the cat experienced her third seizure episode, was taken to a different veterinarian, was hospitalized and was placed on sodium pentobarbital. The same pattern of seizures followed by behavioral change followed by spontaneous resolution was seen. On this admission, laboratory values included: albumin of 2.3 gm/dl (normal 2.3-3.5 gm/dl), total protein of 4.9 gm/dl (normal 5.3-7.8 gm/dl), and LDH of 213 IU (normal less than 200 IU), and "elevated" blood ammonia levels. A toxoplasmosis titer was equivocal at 1:20. Because of the cyclical pattern of seizure activity followed by rage, the owner elected to have the kitten euthanized.

Material submitted: One H&E slide from cerebral hemisphere.

Points for discussion: 1) Diagnosis  
2) Pathogenesis and relevance to human disease