

64th ANNUAL DIAGNOSTIC SLIDE SESSION 2023

CASE 12

Submitted by:

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Clinical History:

The decedent was a 79-year-old male with history of prostate cancer and squamous cell carcinoma of the skin, admitted to the hospital for sepsis, acute kidney injury, rhabdomyolysis, confusion, fever, leukocytosis, hypothermia, and rash in the setting of a recent bite/sting by an unknown insect. He eventually developed a morbilliform rash covering the trunk and extremities. A lumbar puncture showed no elevated white blood cell count, with normal glucose and protein. With treatment there appeared to be improvement, however 2 days after admission he was dysarthric with left facial droop and was not stable enough for MRI evaluation. He became more acidotic, oliguric with increasing fevers, decreased mentation, and intubated on the third day, continued to worsen and died on day 4 following admission.

Autopsy findings:

Postmortem examination was consistent with end-stage shock that appears to be most likely septic in nature. Histopathological analysis shows acute tubular necrosis of the kidney, diffuse ischemic enterocolitis (small intestine, large intestine, and rectum), and signs of coagulopathy with disseminated petechial hemorrhages, all findings consistent with shock. The skin was remarkable for diffuse lesions suggestive of a small vessel vasculitis or leukocytoclastic vasculitis with sweat duct necrosis. However, these findings seem nonspecific and most likely representing a vascular reaction pattern secondary to shock and end-stage coagulopathy.

The brain and dura weighed 1430 gm and were grossly normal with questionable subarachnoid hemorrhage over the right parietal cortex. Microscopic examination did not show signs of encephalitis or meningitis. Additional findings include cerebral amyloid angiopathy, neuropathologic changes consistent with Alzheimer disease, low probability, (A1, B1, C1), as well as atherosclerotic cerebrovascular pathology. Testing of the postmortem blood and CSF for tickborne illnesses, sent to the CDC for analysis, resulted negative for Rickettsia, Ehrlichia, Powassan, Bourbon, and Heartland viruses.

Materials submitted:

- Gross photos of the brain
- H&E section of cerebellum

Points for discussion:

1. Histopathologic features and differential diagnosis.
2. Diagnosis and clinical significance.