

56th ANNUAL DIAGNOSTIC SLIDE SESSION 2015.

CASE 2015-4

Submitted by:

Abeer Tabbarah, M.D., Barbara Crain M.D., PhD, and Fausto J. Rodriguez, M.D.
Johns Hopkins University
Department of Pathology
Division of Neuropathology
Sheikh Zayed Tower, Rm M2101
1800 Orleans Street
Baltimore, MD 21231

Clinical History:

The patient was a 73-year-old man with a past medical history of angioimmunoblastic T-cell lymphoma diagnosed 6 years before death and treated with 6 cycles of cyclophosphamide, doxorubicin, vincristine, and prednisone with complete remission in a year later. Two years later, he developed treatment-related acute myeloid leukemia that was unresponsive to chemotherapy. He also had chemotherapy-induced cardiomyopathy with an ejection fraction of 25% and treatment-related chronic kidney disease. One year prior to death, he underwent a non-myeloablative haploidentical bone marrow transplant.

He presented to the hospital approximately two months after for one episode of aphasia, which had been preceded by gait instability, lightheadedness and altered mental status for about 1 week. Vital signs showed a blood pressure of 105/60 and hypothermia (34.9 °C). White blood cell count was low with a left shift. On neurologic exam, he had depressed consciousness and was disoriented. He also had multifocal myoclonus, bilateral tremor more evident with intention than at rest, and dysmetria. There were no focal neurologic findings. He was admitted, but no acute intracranial changes were present on CT scan. In the hospital, he had rapid worsening of his mental status with respiratory failure requiring intubation. Bone marrow biopsy showed an aplastic marrow and suspected graft failure. He developed polymicrobial bacteremia and septic shock, and his family decided to make him comfort care. He died approximately one month after the recent hospitalization.

Autopsy findings:

Bone marrow profoundly hypocellular

Material submitted:

1 H&E stained section of the hippocampus

Points for discussion:

1. Differential Diagnosis
2. Pathogenesis