

## Case 1999 # 1

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### **Clinical History:**

The patient was a 53-year-old male, initially admitted to the Hematology/Oncology service one month earlier with preliminary diagnosis of hairy cell leukemia. The diagnosis was confirmed following review of slides and flow cytometry. Chemotherapy with 2-chlorodeoxyadenosine (2-CdA) was initiated, soon after which the patient developed multiple problems including neutropenia with fever, seizures and right lower lobe pneumonia. He was started on Cefaz and Clindamycin. Amphotericin B was later added as the patient continued to be febrile and later, Acyclovir was added for suspicion of herpes encephalitis. A MRI was obtained but showed no evidence a generalized process or focal brain lesion, including herpes encephalitis. Bronchoscopy was performed and revealed non-necrotizing pulmonary granulomas. The patient was thereafter started on multidrug therapy (INH, Rifampin, pyrazinamide and ethambutol) for mycobacterial infection (atypical mycobacterium or tuberculosis).

The patient had changes in mental status in that he was agitated and combative. He also had multiple seizures over the initial period of his current admission. Although he had a history of seizure disorder as an adult, he had not experienced any seizures for almost ten years. He had previously been on Tegretol and was started on Dilantin. His mental status improved and adequate seizure control was achieved. However, he deteriorated two weeks later, becoming only intermittently responsive and coherent. The patient also began to develop progressive renal dysfunction, likely secondary to acute tubular necrosis. He became remarkably hypotensive. Blood cultures were positive for *Corynebacterium* and the patient was started on appropriate antibiotic therapy. The patient's liver function tests were abnormally elevated. Anti-tuberculosis medications were withdrawn. The patient's clinical condition continued to decline. Blood cultures were positive for gram-positive cocci in clusters and Vancomycin was added. No aggressive measures were taken in the face of his multi system organ failure and sepsis. The patient expired one month after admission.

Autopsy findings were consistent with the clinical course described above. The brain was examined after fixation and was grossly and histologically normal with the exception of the changes shown in the submitted kodachrome and paraffin section.

Material submitted: Kodachrome of transverse section through the medulla and cerebellum  
H&E stained and one unstained section from the area of the dentate nucleus

Points for discussion 1. Diagnosis  
2. Etiopathogenesis