

**1999-11**

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**Clinical history:** This 45 year old man with a history of AIDS (CD4+ lymphocyte count = 3/ml), presented with fever, diarrhea, and dizziness.

His history was notable for multiple opportunistic infections, including Pneumocystis carinii pneumonia and atypical mycobacterial infection, the latter treated with INH and ethambutol. He also had had hepatitis B. In the prior six weeks, he underwent antibiotic treatment of S. aureus arthritis of the shoulder. During this time, he complained of vague difficulty walking, which was attributed to orthostasis and resolved with fluid replacement. He had received no anti-retroviral therapy.

On admission, he had fever of 100.3F, oral thrush, a supple neck, diffuse pulmonary wheezing, normal cardiac and abdominal examination, and limited active range of motion of the right shoulder joint without effusion or signs of inflammation. Mental status was "baseline", and neurologic examination was "nonfocal". Laboratory studies showed the following: Peripheral WBC 2,800/ml (64% N, 14% L, 11% M, 10.6% E); normal renal and liver function tests; CSF protein 59 mg/dl, glucose 56 mg/dl, with 0 RBC and 1 WBC in tube #1 and 0 RBC and 7 WBC in tube #4; cryptococcal antigen determination was negative in serum and CSF. Stool and CSF were sent for microbiologic evaluation. He was begun on Flagyl for presumptive C. difficile colitis. Radiographic studies of the shoulder showed only small fluid collections, improved since a previous study. An ophthalmologic consultant detected no evidence of CMV retinitis.

He remained febrile. On hospital day 9, he developed a change in his mental status, progressing from lethargy with dysarthria, right-sided weakness, and diffusely increased muscle tone with hyperreflexia, to complete coma within 24 hours. A diagnostic CSF microbiology report was received. Despite fluid management, broad-spectrum antibiotics, and institution of acyclovir therapy, he died on hospital day 14.

**General autopsy findings:** Acute hemorrhagic bronchopneumonia, splenic lymphoid depletion, and chronic periportal inflammation in the liver.

**Neuropathology findings:** Softening and hemorrhage of the pons, extending into the cerebellum and rostrally through the left cerebral peduncle into the left thalamus; a grossly normal basilar artery; and diffuse centrum ovale atrophy (HIV leukoencephalopathy):

**Material submitted:** One kodachrome of Kluver-Barrera-stained whole mount section of formalin-fixed pons and cerebellum, one H&E-stained and one unstained glass slide of the pons.

**Points for discussion:** 1) Differential diagnosis; 2) Likely diagnostic CSF microbiology report; 3) Special studies desired??