

Case 2

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CLINICAL ABSTRACT

This 72-year-old male presented with a two-week history of headache, low-grade fever, and mental confusion following hemodialysis.

The patient gave a history of chronic renal failure for several years, with azotemia due to arterionephrosclerosis. Worsening of this state necessitated institution of hemodialysis two weeks prior to the present admission. Following dialysis, he complained of headaches and manifested a low-grade fever. He was given a short course of antibiotics, but failed to improve. X-rays disclosed haziness in the left frontal sinus, but no other possible source for infection was discovered. CT scans of brain were interpreted as normal.

Admission general physical examination was unremarkable except for a temperature of 101⁰. He was somnolent, had recent memory loss, and decreased attention span. His eye movements were full, pupils equal and reactive; corneal reflexes were intact and facial strength was symmetrical. His palate and tongue moved well and his speech was clear. Asterixis was present, greater on the left, but no myoclonus was detected. Fine motor control was slow but symmetrical and no ataxia was found. Reflexes were normal.

Initial lumbar puncture yielded clear fluid with an opening pressure of 155, glucose 33, protein of 114 and 53 white blood cells-88% mononuclear. CSF and blood cultures were negative. He was placed on Penicillin, but continued to show progressive somnolence, diminished attention span, tremors and asterixis.

On the third hospital day, a repeat lumbar puncture was performed. The opening pressure was 120, and the protein had risen to 368 mgm, with a glucose of 29 and 39 WBCs-90% mononuclear. His condition continued to deteriorate and he died on the third hospital day.

General autopsy findings included generalized arteriosclerosis with an old posterior wall myocardial infarction, and end-stage kidneys (75 gm each) due to arterio- and arteriolar nephrosclerosis. Healed granulomata were found in both lungs, without identifiable organisms.

The brain weighed 1320 gm and no swelling or evidence of herniation was detected. The leptomeninges were slightly cloudy, but no exudate was seen. Multiple areas of hemorrhagic necrosis were found in the cerebrum, cerebellum, and brainstem. These varied from 2 mm to 2 cm in size, had indistinct borders, and some had evidence of early cavitation.

POINTS FOR DISCUSSION

1. Diagnosis.
2. Possible relationship to the chronic renal failure and/or hemodialysis?