

CASE 5

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Clinical Abstract:

The man was 52 years old at his death. At age 44, he was hospitalized with the acute onset of severe headache followed by transient loss of consciousness. In hospital, he was alert and without focal neurologic signs but with nuchal rigidity. Lumbar puncture revealed grossly bloody fluid. Cerebral angiography was performed and showed narrowing of the supraclinoid portions of both the left and right internal carotid arteries. Most branches of the middle cerebral arteries were thinned bilaterally, and there was marked collateral circulation noted. The radiologic diagnosis was 'anomalous cerebral vasculature'. The patient recovered sufficiently to be discharged and return to work.

At age 49 he was readmitted to the same hospital with a second episode of acute onset headache followed by transient loss of consciousness. Lumbar puncture showed grossly bloody fluid, and a CT examination demonstrated a right posterior frontal lobe hematoma as well as an area of decreased density in the left parietal and frontal lobes. After three weeks of improvement the patient was discharged.

At age 51 he was admitted to hospital with headache and abnormal behavior. Earlier in the day he had complained of bitemporal headache, after which his speech became incoherent. In the emergency room he was uncooperative and unable to comprehend the requests of the medical staff. CT examination showed a left temporal hematoma as well as multiple areas of low density. Angiography at this time showed no change in the internal carotid arteries, but a reduction in the collateral circulation was noted when compared to the angiogram done 7 years previously. With conservative management he recovered sufficiently to be discharged three weeks later. Deficits at this time included left sided spasticity, right hemianopia and some verbal comprehension difficulties.

At age 52 he was admitted to hospital for the last time, having been found unconscious on a sidewalk. CT scan showed a new right frontal and parietal intracerebral hemorrhage. With Decadron and mannitol therapy his condition improved slowly. However, on the 25th hospital day, he was found unresponsive and pulseless, and was declared dead.

General autopsy findings: Acute bronchopneumonia  
Left ventricular hypertrophy  
Mild coronary and aortic atherosclerosis

Material submitted: One H&E stained slide which includes sections of posterior (larger one or two) and anterior (smaller) cerebral arteries.

Points for discussion: 1. Diagnosis  
2. Epidemiology  
3. Associated pathology and neuropathology