

Case 2000-08

Submitted by: Robert E. Mrak, MD, PhD
Department of Pathology
DVAMC and University of Arkansas for Medical Sciences
Little Rock, Arkansas

Clinical Summary:

The patient was a healthy, 19 year-old construction worker without significant past medical history, who presented to a local emergency room with weakness in his right arm and leg.

Four or five days prior to admission a large door fell on his back and neck at a construction site, knocking him down. However, he did not lose consciousness and was able to work the rest of the day with a mild headache. One day prior to admission, he noted vague "tingling" in his right arm. On the day of admission, he was driving home from work with friends, and incidentally passing a local hospital, when he suddenly developed weakness in his right arm and leg. By the time they had pulled into the parking lot, this had progressed to right leg paralysis, now accompanied by weakness in his left arm and severe back pain with radiation to his chest and right arm. He was evaluated and transferred to the University Hospital for neurosurgical evaluation.

On arrival he had full deltoid strength and 4+ biceps strength bilaterally, 0-1/5 right and 3/5 left intrinsic hand muscle strength, and no leg strength on either side. Difficulty voiding necessitated placement of a Foley catheter. Myotatic stretch reflexes were present only in the biceps muscles, there was a C6 sensory level, and there was decreased rectal tone. Subsequently, priapism was noted, together with loss of cremasteric and abdominal reflexes.

Magnetic resonance imaging of the head and entire spine were normal. The patient was started on Decadron, and subsequently treated with acyclovir. Cerebrospinal fluid analysis showed glucose 65 mg/dl, protein 74 mg/dl, 1 WBC/cc, and 2 RBC/cc. A repeat analysis on the seventh hospital day showed glucose 65, protein 74, 1 WBC, and 0 RBCs.

High dose solumedrol was added to the acyclovir, without improvement. On the eighth hospital day, the patient died suddenly.

Postmortem findings:

At autopsy, a large pulmonary saddle embolus was found. The cervical spinal cord was extremely friable. Additional findings were cardiomegaly (495 gm) without significant coronary atherosclerosis; hepatic congestion, and Hashimoto's thyroiditis.

Slides provided: Cervical spinal cord (hematoxylin and eosin)

Points for discussion:

1. Diagnosis
2. Pathogenesis