

## 51st ANNUAL DIAGNOSTIC SLIDE SESSION 2010

### CASE 2010-10

Submitted by: Douglas C Miller MD, PhD  
University of Missouri School of Medicine  
Department of Pathology & Anatomical Sciences  
One Hospital Drive, M263 MSB  
Columbia, Missouri 65212

#### Clinical History

This 65-year-old man developed a cough and sore throat, which worsened over several days, bringing him initially to his primary care physician. He had a negative test for influenza and told he had a viral illness, given cough syrup, and sent home. He developed fever to 104°F, weakness, and anorexia and went to the hospital. He was admitted, started on oxygen, antibiotics, and bronchodilators. He was noted to have febrile neutropenia. His neurological exam was normal. However, he further deteriorated and required sedation, intubation, ICU admission, and pressors for septic shock. He developed ventricular tachycardia and then had a cardiac arrest after being given amiodarone; he was resuscitated. He developed acute renal failure. Six days after admission a head CT show subarachnoid hemorrhage. He was weaned from sedation but remained comatose, thought to be secondary to hypoxic brain damage after his cardiac arrest. Given the poor prognosis the family agreed to comfort care only, and shortly thereafter he died. Permission for a full autopsy was obtained.

#### Autopsy findings:

The general autopsy documented septicemia and a bilateral lower lobe pneumonia with *Candida glabrata* and coagulase-negative *Staphylococcus*. The bone marrow was hypercellular, consistent with sepsis. There was cardiomegaly with moderate coronary artery disease.

The brain was 1600 grams (fixed weight) and was swollen with central herniation and had small foci of fresh subarachnoid hemorrhage. Coronal sections showed no abnormalities of the cortex, but the white matter had numerous scattered round petechiae, the largest of which was 0.6 x 0.5 cm in one section. There were also petechiae in the brainstem and in the cerebellar white matter.

#### Material submitted:

One Luxol Fast Blue/H&E combined stained section of cerebrum (from one of three areas)

#### Points for discussion:

1. Diagnosis
2. Pathogenesis