Photo Quiz

(For answer and discussion, see page 2807 in this issue [[doi:10.1128/JCM.01529-12](https://doi.org/10.1128/JCM.01529-12)].)

Positive Blood Culture in a Patient with Sickle Cell Crisis

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FIG 1 Gram (a) and acridine orange (b) stains of blood culture broth. Original magnification, $\times 1,000$ (oil).

A 21-year-old African-American female with a history of sickle cell anemia, multiple admissions for sickle cell crises, cholecystectomy 3 years prior, and avascular necrosis of the left hip 2 years prior presented with a fever and back pain. The patient had undergone a recent 10-day hospitalization with a diagnosis of *Escherichia coli* and *Candida albicans* infection of her peripherally inserted central catheter (PICC) line. The PICC line was removed, and the patient was treated with a 2-week course of intravenous ceftriaxone and fluconazole via a new PICC line. The patient now presented 12 days after discharge in sickle cell crisis, with generalized back pain and a fever of 102.2°F. The results for the physical examination were unremarkable except for severe hepatosplenomegaly. There were no signs or peripheral stigmata of endocarditis. The complete blood count was significant for leukocytosis (white blood cell count of 23,700 cells/ μ l, with a neutrophil level of 82%) and anemia (hemoglobin level of 9.2 g/dl); the platelet count was within normal limits (345,000 platelets per μ l). The results for the renal and liver function tests were all within normal limits except for a low albumin level (3.1 mg/dl). The chest X-ray examination showed no acute cardiopulmonary process. The re-

sults for urinalysis were normal, with no evidence of infection, and blood cultures were negative. The patient was documented to be noncompliant with oral medications and to be injecting substances into her PICC line 10 days into this admission. Blood cultures were obtained peripherally and from PICC line ports at this time, and the patient was empirically treated with vancomycin and piperacillin-tazobactam. The peripheral cultures were negative, while those from the PICC line ports yielded *Escherichia coli* from two ports and *Achromobacter xylosoxidans* from the third port. Repeat blood cultures obtained from the PICC line 2 days after antibiotic treatment was initiated became positive 6 h after collection; Gram and acridine orange stains of the blood culture medium at this time revealed the organisms shown in Fig. 1.

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