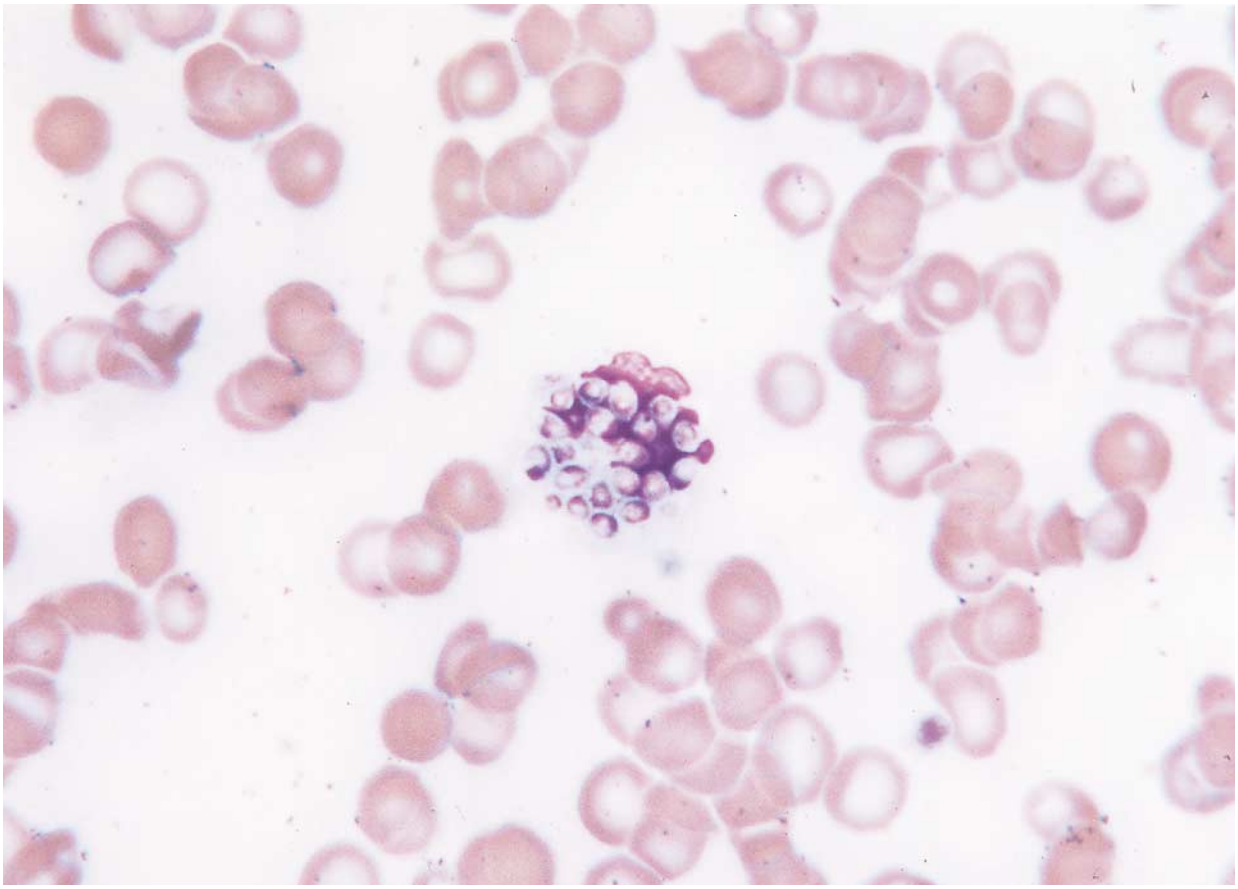
Images in Clinical Medicine



Histoplasma capsulatum *in a Peripheral-Blood Smear*

A 45-year-old man with the acquired immunodeficiency syndrome presented with night sweats, fatigue, cachexia, and a productive cough. He had a fever (temperature, 40°C), tachycardia (heart rate, 136 per minute), a leukocyte count of 2.5×10^3 per cubic millimeter, and hypotension (blood pressure, 90/50 mm Hg). A chest x-ray film revealed an infiltrate in the right lower lobe. A peripheral-blood smear (Wright's stain, ×1000) obtained on admission showed a monocyte with a grossly distorted nucleus and numerous intracellular yeast-like organisms 2 to 4 μm in diameter with eccentric chromatin. The organisms were surrounded by an artifactual pseudocapsule caused by cytoplasmic shrinkage. These features are diagnostic of *Histoplasma capsulatum*. Of 200 neutrophils or monocytes examined, 26 (13 percent) contained these organisms, and the intracellular burden ranged from 1 to 20 organisms. *H. capsulatum* was isolated from cultures of blood obtained on admission. The patient was treated with amphotericin B, but his condition deteriorated and he died of septic shock two weeks later. *H. capsulatum* is acquired by the inhalation of conidia or mycelial fragments. Reactivation of a latent infection is possible and may explain the occurrence of histoplasmosis in this patient, who was originally from Alabama, an area in which the fungus is endemic.

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