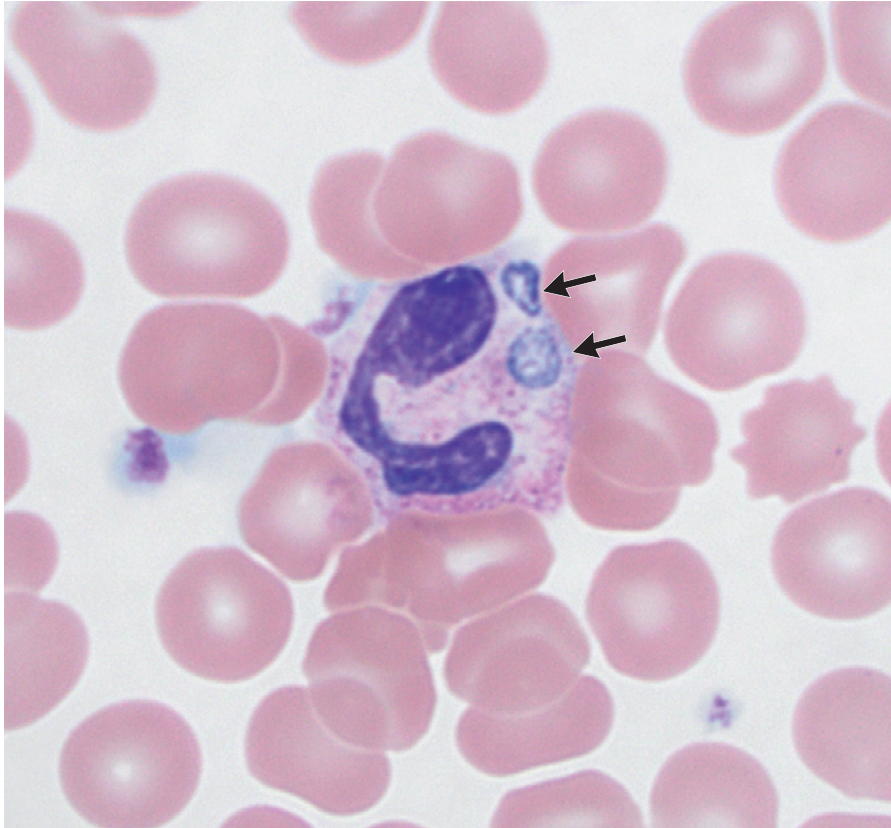


IMAGES IN CLINICAL MEDICINE

Stephanie V. Sherman, M.D., *Editor*

Anaplasmosis



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A 58-YEAR-OLD MAN PRESENTED TO THE EMERGENCY DEPARTMENT WITH A 3-WEEK HISTORY OF FATIGUE, fever, poor appetite, headache, and yellow discoloration of the eyes. He had a history of splenectomy after a traumatic injury. He lived on a farm in upstate New York. His temperature was 37.8°C (100.1°F), and his heart rate was 105 beats per minute. Physical examination was notable for scleral icterus and mild tenderness to palpation in the right upper abdomen. Laboratory studies showed a leukocytosis with bandemia, a normal hemoglobin level and platelet count, direct hyperbilirubinemia, and mild elevations in aminotransferase and alkaline phosphatase levels. A peripheral-blood smear revealed band and segmented neutrophils with abnormal intracytoplasmic inclusions (arrows). A blood polymerase-chain-reaction (PCR) assay for *Anaplasma phagocytophilum* was positive. A diagnosis of human granulocytic anaplasmosis — a tickborne disease endemic to the northeastern United States — was made. Intracytoplasmic inclusions known as morulae form in anaplasmosis when the bacteria are ingested by neutrophils. Although morulae in neutrophils are diagnostic for anaplasmosis, they are not always present, and a PCR assay should also be ordered in suspected cases. In this patient, testing for coinfection with other tickborne illnesses was negative. Treatment with doxycycline was started, and the patient's condition improved within 1 day.

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