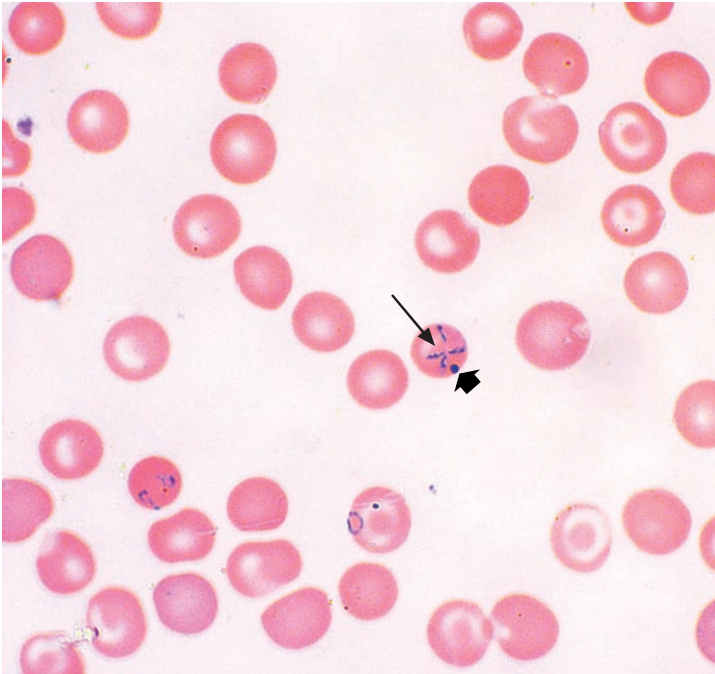


## IMAGES IN CLINICAL MEDICINE

## Babesiosis



A 34-YEAR-OLD MAN CAME TO THE EMERGENCY ROOM WITH A 3-DAY HISTORY of fevers (peak temperature, 40°C), accompanied by shaking chills. Laboratory tests revealed a hemolytic anemia, with a hemoglobin level of 8.6 g per deciliter. Nodular sclerosing Hodgkin's lymphoma, stage IIIB, had been diagnosed 12 years earlier, in 1994, and the patient underwent splenectomy at that time. He had traveled recently to Massachusetts, Oregon, Hawaii, Florida, and Illinois and to South Africa and Costa Rica. The peripheral-blood smear shows numerous intracellular organisms in red blood cells, with nearly 3% of erythrocytes harboring parasites. Multiple ring forms are seen, as well as rare tetrads (thin arrow). These so-called Maltese cross formations are essentially pathognomonic of babesiosis, since they are not seen in malaria, the primary consideration in the differential diagnosis. The dark, round body in the right lower quadrant of the red blood cell with the tetrad is a Howell-Jolly body (thick arrow), an erythrocyte inclusion representing an incompletely extruded nucleus. Howell-Jolly bodies are seen in patients with functional asplenia, and such patients are particularly susceptible to serious babesial and encapsulated bacterial infections. This single red cell provides both a diagnosis and an understanding of the underlying pathogenesis. Our patient received a 7-day course of treatment with azithromycin and atovaquone. His fever subsided rapidly, and his hematocrit eventually returned to normal.

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Kyle Noskoviak, M.D.  
Elizabeth Broome, M.D.

University of California, San Diego,  
Medical Center  
San Diego, CA 92115