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## Photo Quiz: A 2-year-old female with fever and rash

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## A 2-Year-Old Female with Fever and Rash

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## Photo Quiz

(For answer and discussion, see page 2784 in this issue [doi:10.1128/JCM.r00081-11])

### A 2-Year-Old Female with Fever and Rash

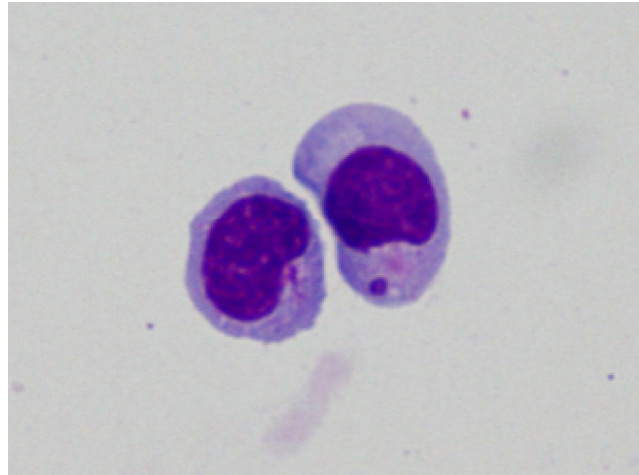


Fig. 1. Wright-Geimsa stain of cerebral spinal fluid from the patient, showing cytoplasmic inclusion bodies within monocytes (original magnification,  $\times 1,000$ ).

A previously healthy 2-year-old Caucasian female from southeast Missouri presented to the emergency department of St. Louis Children's Hospital in June 2010 with a week-long fever. Her history included the removal of a small tick engorged with blood several days prior to fever onset. She exhibited high fevers of up to 104°F, with associated rhinorrhea, a mild cough, and episodes of emesis and diarrhea causing moderate dehydration. After several days at home, she was admitted to the hospital, where she was treated with ceftriaxone and azithromycin for otitis media without overall improvement. She developed an erythematous, maculopapular rash that blanched with pressure and that initially began on her cheeks and then spread down her neck to her trunk and extremities, sparing her palms and soles; no petechiae were observed. A complete blood count (CBC) revealed a low-normal white blood cell (WBC) count of  $4.9 \times 10^9$  cells/liter, a (low) hemoglobin concentration of 10.9 g/dl, and a low platelet count of  $102 \times 10^9$  cells/liter. Her serum metabolic panel indicated hyponatremia (133 mmol of sodium/liter) with mildly elevated liver transaminase levels (aspartate transaminase [AST], 56 U/liter; alanine transaminase [ALT], 48 U/liter). Routine bacterial cultures of blood and urine were negative for growth. After further evaluation, a lumbar puncture was performed, with analysis of cerebrospinal fluid (CSF) showing a total cell count of  $95 \times 10^6$  cells/liter, with a nucleated cell count of  $93 \times$

$10^6$  cells/liter, including 84% lymphocytes and 13% monocytes; the CSF glucose level was 52 mg/dl, and the CSF protein level was 53 mg/dl. Geimsa staining of the CSF specimen was performed as part of her evaluation and revealed inclusion bodies present in the cytoplasm of monocytes (Fig. 1). A PCR assay of whole blood was performed and confirmed the diagnosis.

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