



Parvovirus infection mimicking a myeloproliferative neoplasm in a toddler with sickle cell disease

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Authors: Emily Y. Jen; Ronald Jackups

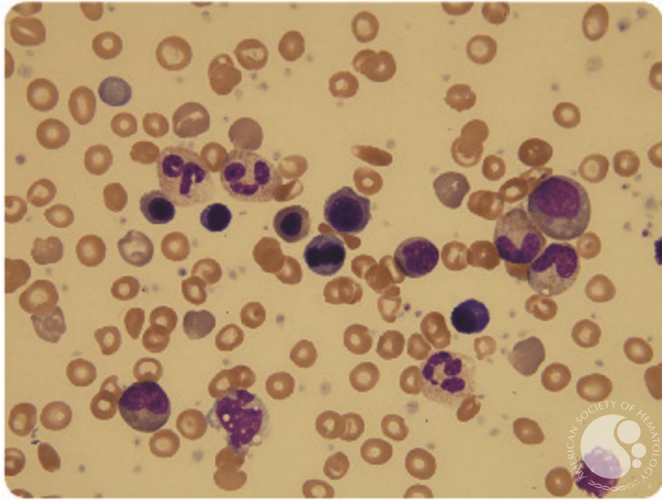
Category: Infectious Disease > Viruses > Parvovirus B19

Description: A 3-year-old boy with sickle cell disease (SCD) presented to the emergency room postsplenectomy for abdominal pain and constipation. Upon examination, he was noted to be tachycardic with a 3/6 systolic ejection murmur. Complete blood count showed a white blood cell (WBC) count of $62.3 \times 10^9/L$, hemoglobin 50 g/L, platelets $586 \times 10^9/L$, mean corpuscular volume 84.3 fL, and 111 nucleated red blood cells (RBCs) per 100 WBCs. Morphologic examination of the peripheral blood showed a leukoerythroblastic smear, including rare blasts and erythroid mitotic figures, and thrombocytosis, including occasional large platelets. Lactate dehydrogenase was 981 U/L and uric acid was 4.7 mg/dL. Given these findings, there was concern for a myeloproliferative neoplasm (MPN), although MPNs are not known to be associated with SCD. However, within 24 hours, his WBC count decreased to $30.7 \times 10^9/L$, and his parvovirus polymerase chain reaction was reported as positive. Following transfusion with 10 mL/kg packed RBCs, his tachycardia and abdominal pain resolved, and no further interventions were employed. Within 1 week, his WBC count had normalized to $9.4 \times 10^9/L$. Leukoerythroblastosis that mimics juvenile myelomonocytic leukemia has been reported in neonates with Epstein-Barr virus and cytomegalovirus infections. However, this case of extreme leukocytosis represents an unusual and rarely reported presentation of parvovirus infection in a splenectomized toddler.





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