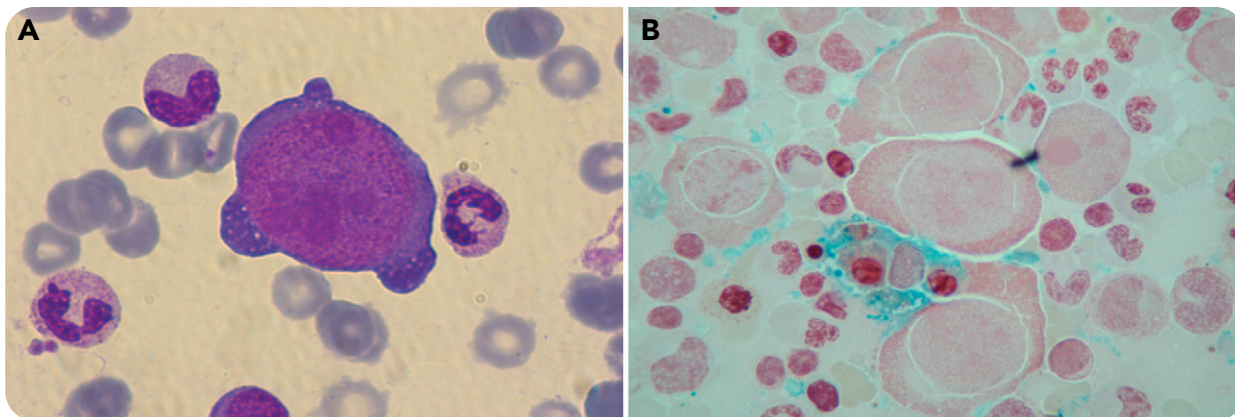




## Severe acute anemia attributable to concomitant occurrence of AIHA with PRCA induced by parvovirus B19 infection

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A 10-year-old, previously healthy girl presented with asthenia and fever of 3 days' duration. Initial investigations revealed mild leukopenia and severe hemolytic anemia (hemoglobin = 4.9 mg/dL) with a markedly positive direct Coombs test. However, the absolute reticulocyte count was unexpectedly low, necessitating a bone marrow aspiration. It revealed marked hypoplasia of erythroid lineage that was mainly represented by scattered giant proerythroblasts showing intranuclear inclusions highly suggestive of underlying parvovirus B19 infection (panel A; May-Grunwald Giemsa stain, original magnification  $\times 1000$ ). Activated macrophages showing hemophagocytosis were also noted as highlighted on the iron stain preparation (panel B; Perls' Prussian blue stain, original magnification  $\times 1000$ ). After common causes of infection and hemolysis were ruled out, the diagnosis

was confirmed by serology showing significantly increased anti-human parvovirus B19 immunoglobulin M and by qualitative polymerase chain reaction performed on a bone marrow sample. Therefore, the patient was diagnosed with autoimmune hemolytic anemia (AIHA) associated with pure red cell aplasia (PRCA) caused by parvovirus B19 infection. She was treated with steroids and intravenous immunoglobulin and had a complete recovery.

PRCA induced by parvovirus infection is a well-known entity. However, concomitant occurrence of AIHA has been rarely reported in such a context. This association should be considered when a patient presents with a severe acute anemia in the absence of a known cause of shortened erythrocyte lifetime.



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