

may trigger rheumatoid disease in some patients and has been associated with juvenile idiopathic arthritis.

Transient Aplastic Crisis Asymptomatic transient reticulocytopenia occurs in most individuals with B19V infection. However, in patients who depend on continual rapid production of red cells, infection can cause transient aplastic crisis (TAC). Affected individuals include those with hemolytic disorders, hemoglobinopathies, red cell enzymopathies, and autoimmune hemolytic anemias. Patients present with symptoms of severe anemia (sometimes life-threatening) and a low reticulocyte count, and bone marrow examination reveals an absence of erythroid precursors and characteristic giant pronormoblasts. As its name indicates, the illness is transient, and anemia resolves with the cessation of cytopathic infection in the erythroid progenitors.

Pure Red Cell Aplasia/Chronic Anemia Chronic B19V infection has been reported in a wide range of immunosuppressed patients, including those with congenital immunodeficiency, AIDS ([Chap. 202](#)), lymphoproliferative disorders (especially acute lymphocytic leukemia), and transplantation ([Chap. 143](#)). Patients have persistent anemia with reticulocytopenia, absent or low levels of B19V IgG, high titers of B19V DNA in serum, and—in many cases—scattered giant pronormoblasts in bone marrow. Rarely, nonerythroid hematologic lineages also are affected. Transient neutropenia, lymphopenia, and thrombocytopenia (including idiopathic thrombocytopenic purpura) have been observed. B19V occasionally causes a hemophagocytic syndrome.

Studies in Papua New Guinea, Gabon, and Ghana, where malaria is endemic, suggest that co-infection with *Plasmodium* and B19V plays a major role in the development of severe anemia in young children. Case reports from other countries are rare, but further studies are required to determine whether B19V infection contributes to severe anemia in other malarial regions.

Hydrops Fetalis B19V infection during pregnancy can lead to hydrops fetalis and/or fetal loss. The risk of transplacental fetal