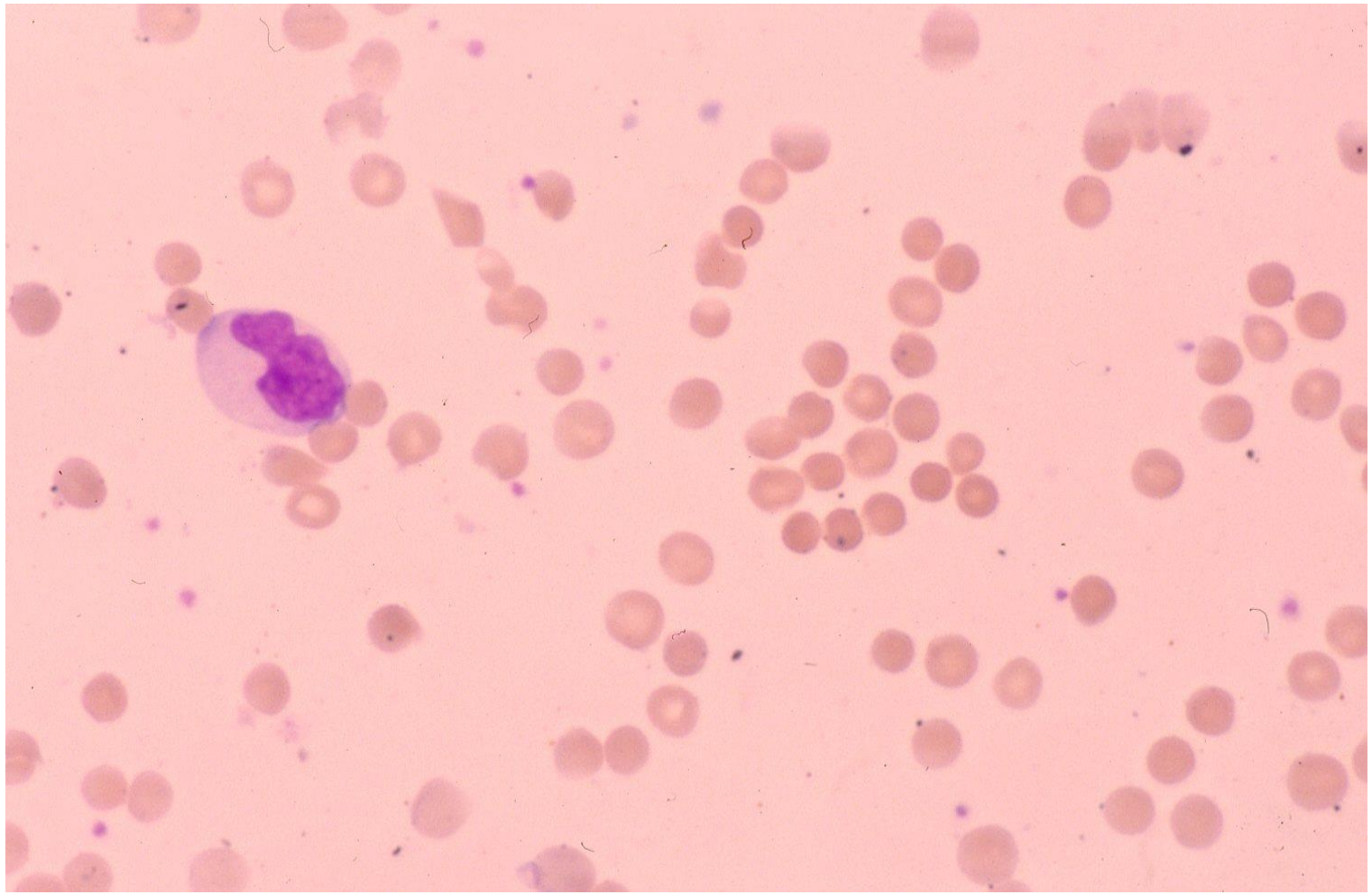
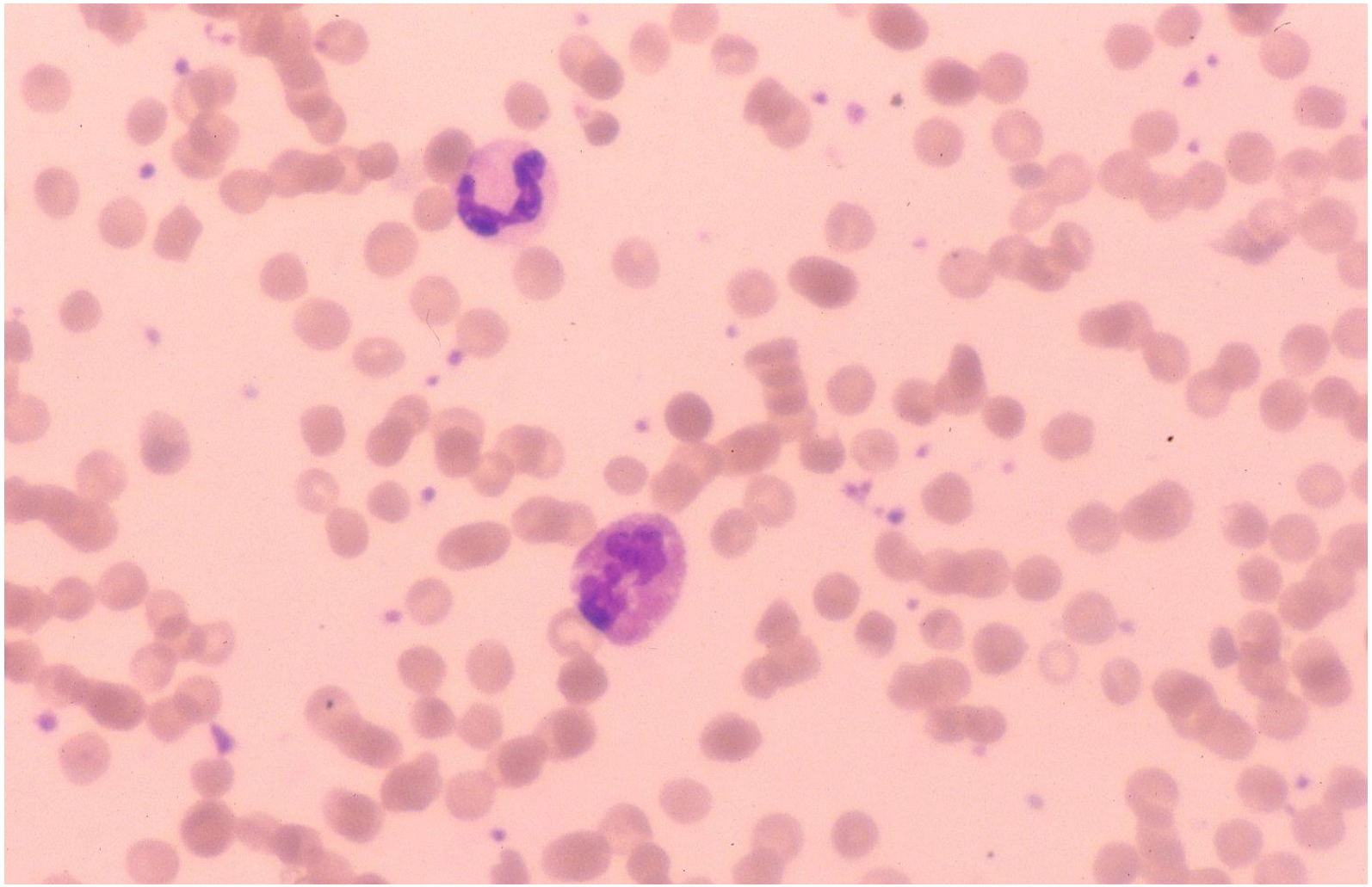
Pure red cell aplasia caused by Parvovirus B19 infection in hereditary spherocytosis

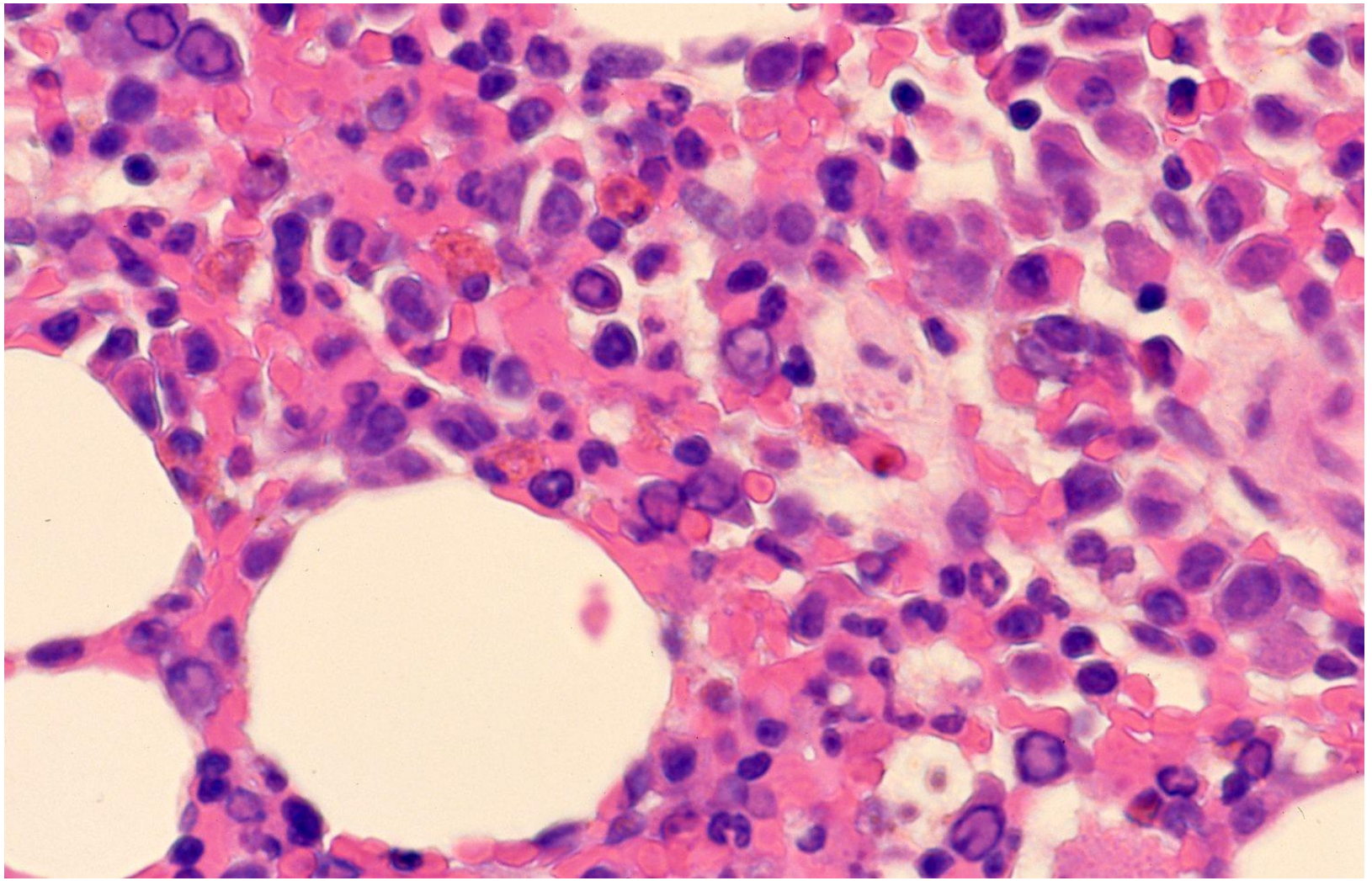
Parvovirus B19 infection (erythema infectiosum) may lead to erythroblastopenia (pure red cell aplasia) crisis in patients with hereditary spherocytosis (autosomal dominant disorder). Of note is that all the family members are susceptible to the crisis. Blood transfusion may be required for improving the severe anemia. Typical family cases are presented.



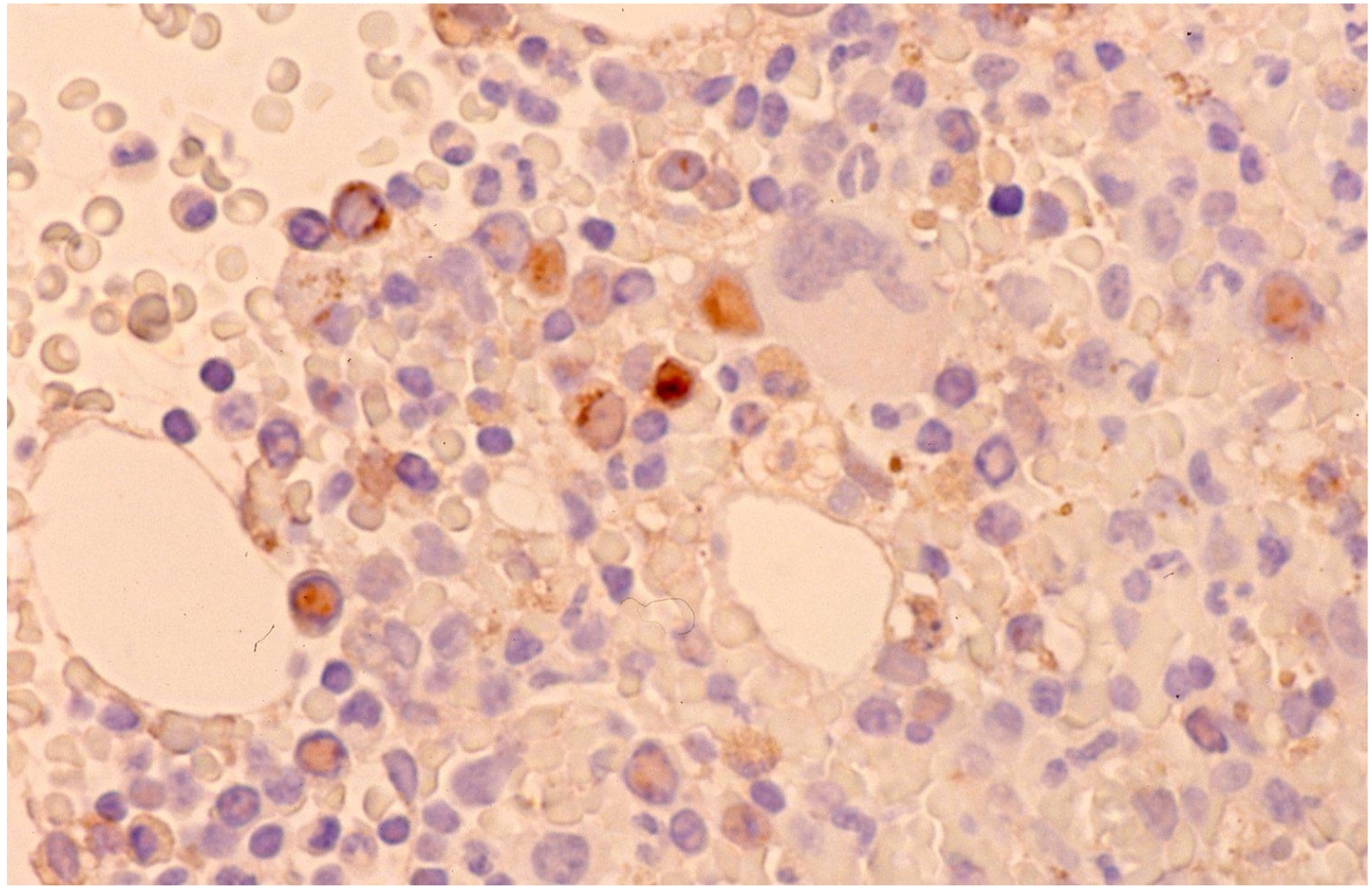
Peripheral blood smear from the father. Spherocytes are observed. Giemsa



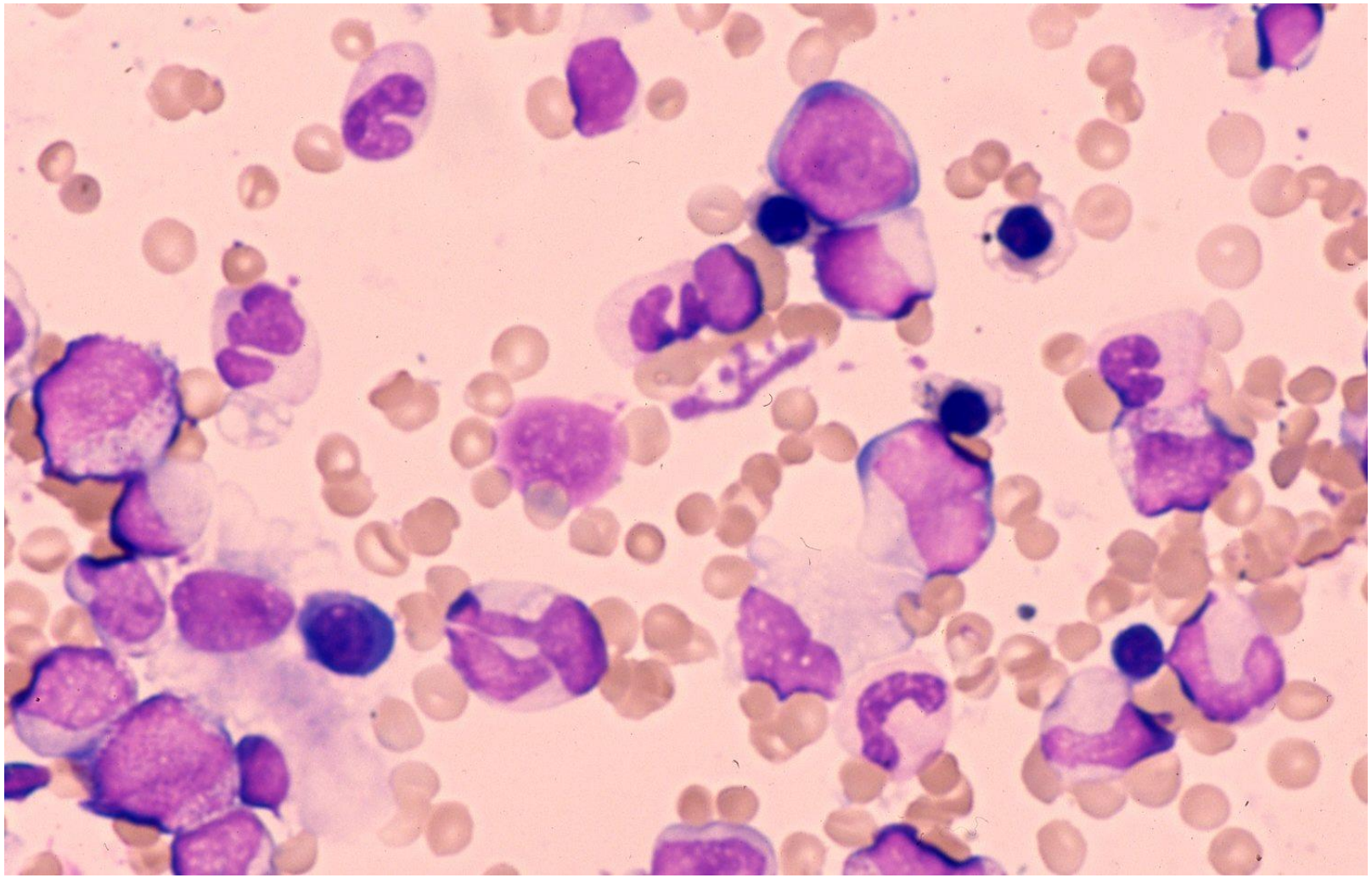
Peripheral blood smear from the daughter. Spherocytes are observed. Giemsa



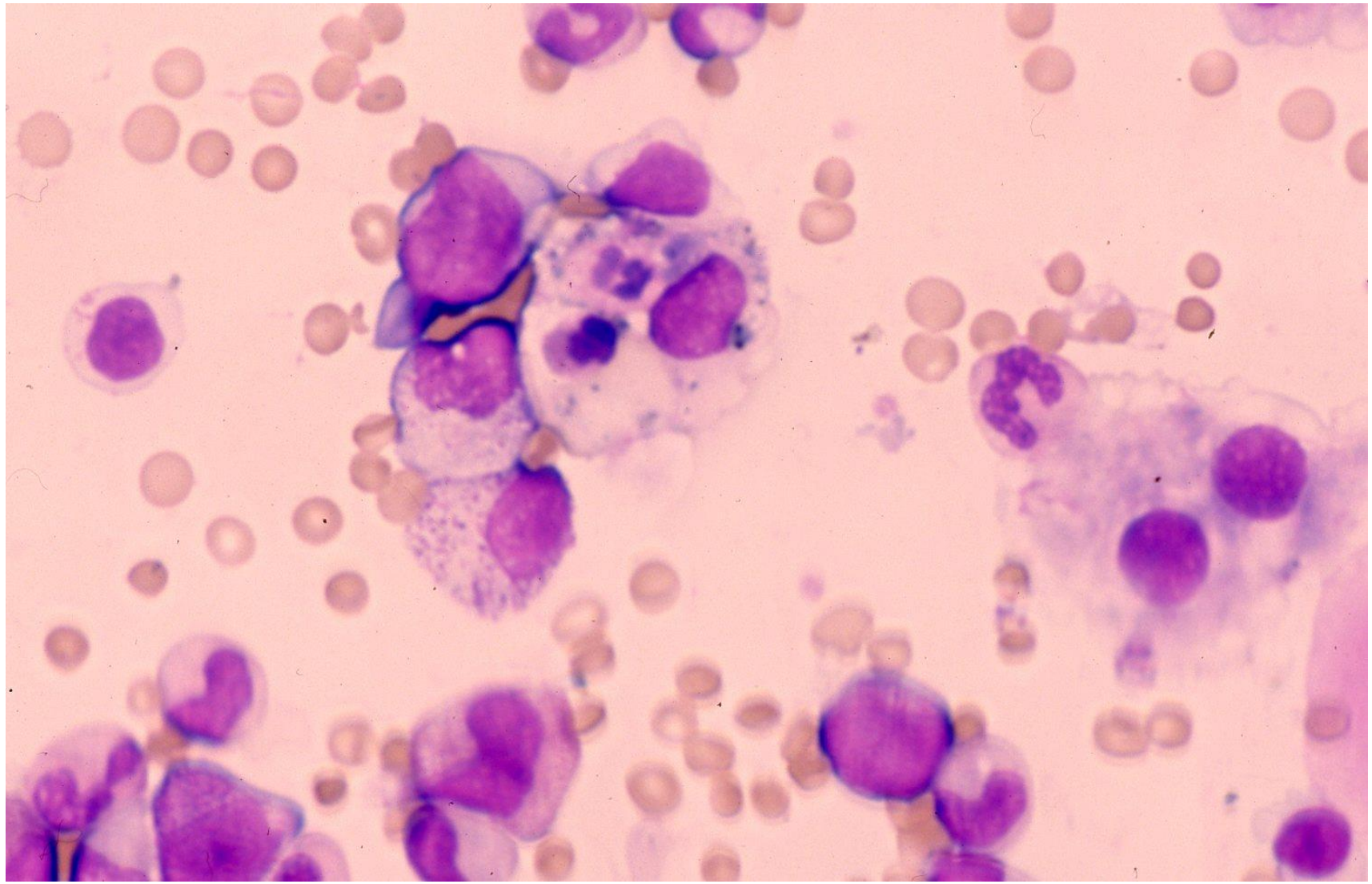
Bone marrow aspiration from the daughter suffering from pure red cell aplasia shows intranuclear eosinophilic inclusion bodies in erythroblasts. H&E



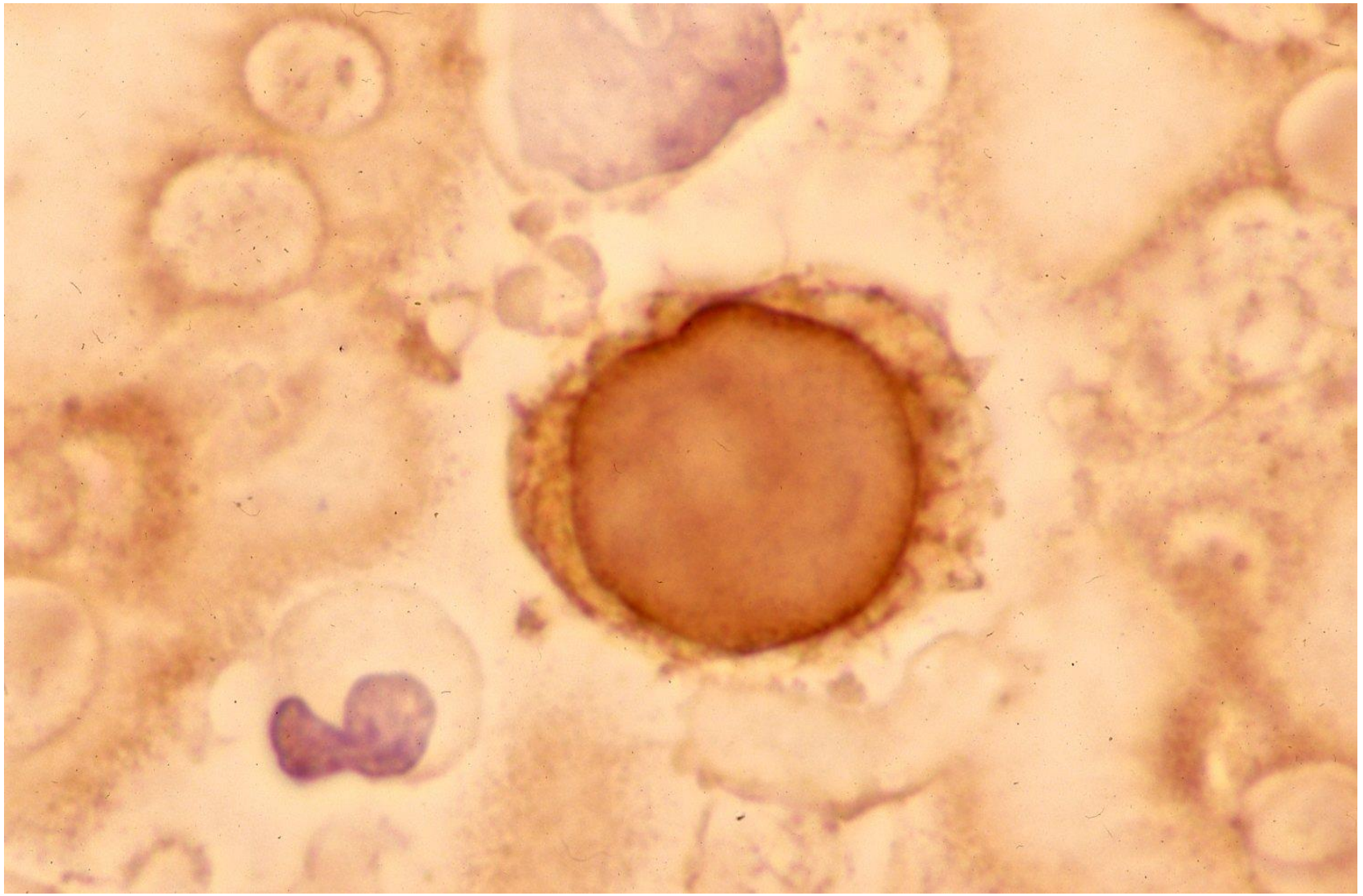
Bone marrow aspiration from the daughter suffering from pure red cell aplasia shows intranuclear localization of Parvovirus B19 Ag in erythroblasts. Immunostaining for Parvovirus B19 Ag



Bone marrow aspirate from the father shows marked decrease of erythroblasts. Spherocytosis is associated. May-Giemsa



Bone marrow aspirate from the father shows marked decrease of erythroblasts. Macrophages phagocytize the affected erythroblasts. Spherocytosis is associated. May-Giemsa



Bone marrow aspirate from the father shows an immature erythroid cells with Parvovirus B19 Ag-positive intranuclear inclusion body. Immunostaining for Parvovirus B19 Ag