

tics: a patchy eosinophilic infiltrate affecting the distal air spaces and absence of hyperplastic pneumocytes (type II) with bizarre shapes usually noted in cases of bleomycin-induced interstitial pneumonitis.<sup>10</sup> The pathologic changes described in our patient are different from those described for bleomycin hypersensitivity pneumonitis and appear to be a classic bleomycin interstitial pneumonitis.<sup>11</sup> This case illustrates that life threatening bleomycin PT, although unusual, can occur with very low doses of bleomycin. The case also illustrates that prompt recognition is essential since some patients have a favorable response to corticosteroid therapy. Further studies are needed for a better understanding of the mechanisms involved in the development of PT induced by bleomycin.

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Bleomycin, pulmonary toxicity, Hodgkin's disease

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## Intrauterine anemia due to parvovirus B19: successful treatment with intravenous immunoglobulins

Sir,

Fetal hydrops is a frequent complication of B19 infection during pregnancy.<sup>1-3</sup>

We report the case of an infant who, after intrauterine B19 infection, developed hydrops, and, subsequently, severe chronic anemia which responded to intravenous immunoglobulins (IVIGs).

A 2,330 g male was born by Cesarean section at 35 weeks gestation after ultrasonography had shown fetal hydrops, pericardial effusion and ventricular hypertrophy. At 22 weeks, the patient's brother had developed erythema infectiosum. At birth, generalized edema and hepatosplenomegaly were present, and rales were heard over the entire chest.

Hb was 49 g/L, platelets  $42 \times 10^9/L$ , reticulocytes  $16.8 \times 10^9/L$ . The peripheral blood smear showed severe anisopoikilocytosis, giant platelets, myelocytes and metamyelocytes. In the bone marrow, the erythroid precursors were vacuolated, and dyserythropoiesis, with *dog-ear* projections, was evident in the proerythroblasts<sup>1</sup> (Figure 1). B19 infection was suspected, and confirmed, a few days later, by B19 DNA detected in the infant's bone marrow and placenta by PCR.<sup>4</sup> Serum IgG and IgM for B19 were negative. The patient's mother and brother had B19 specific serum IgG but no specific B19 IgM. Indirect Coombs' test was negative.

The infant required mechanical ventilation for four days, and two platelet transfusions because of platelet count  $<20 \times 10^9/L$ . Twelve units of packed erythrocytes were needed to keep the Hb level above 60 g/L. In accordance with previous literature reports,<sup>5,6</sup> at the age of 10 months IVIGs (1 g/kg every three weeks) were started and continued for 8 months (Figure 2). PCR for B19 was still positive in the bone marrow at 1 and 12 months of age. At age

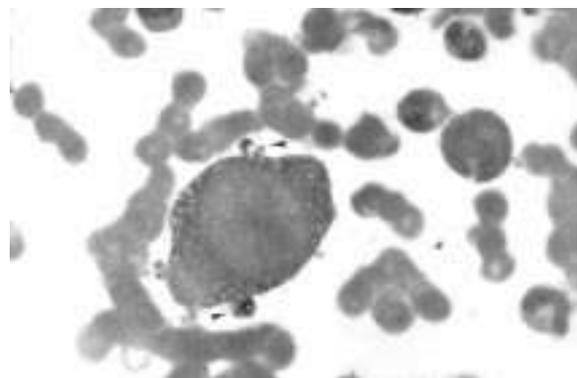
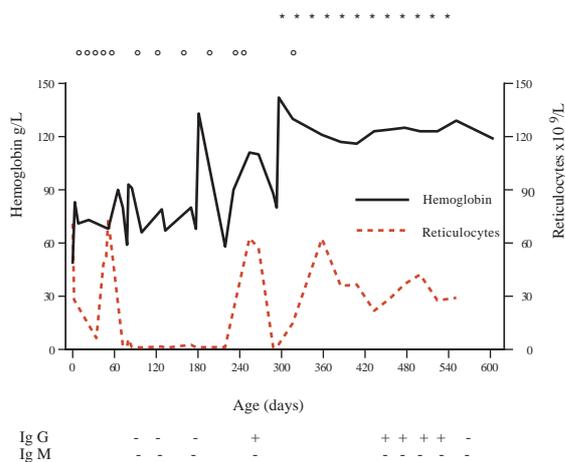


Figure 1. Bone marrow aspirate with giant vacuolated proerythroblasts. The arrows indicate the *dog-ear* projections of the cytoplasmic membrane.



**Figure 2.** Graph of hemoglobin and reticulocyte values during parvovirus B19 infection. ° indicate packed red cell transfusions; \* immunoglobulin cycles. Antibody positivity to parvovirus B19 is reported underneath.

18 months the anemia gradually resolved, liver and spleen returned to normal size, and PCR for B19 became negative in the bone marrow. B19 specific IgG, positive during IVIG therapy, became negative after the treatment. Thirty months after the end of IVIG therapy the child's Hb is stable at about 120 g/L, and he is completely well.

Successful treatment of severe B19-induced intrauterine anemia after 4 months of transfusions was reported in 1994.<sup>7</sup> Three other infants with anemia due to transplacental B19 infection were treated with IVIGs:<sup>2</sup> two remained transfusion-dependent and one died after one course of IVIGs. B19 DNA was detected in their bone marrow but not in their serum. Despite persistent anemia, PCR analysis of the bone marrow became negative after IVIG therapy. Successful IVIG treatment of neurologic symptoms and anemia attributed to B19 infection was reported in a three-month-old hypogammaglobulinemic infant.<sup>8</sup>

Our patient was successfully treated with 12 cycles of IVIGs, with disappearance of the virus from the bone marrow. The immaturity of the fetal immune system, and the brief half-life of fetal IgM<sup>7</sup> could explain the lack of B19 specific IgM. The brief thrombocytopenia could be attributed to reversible damage to megakaryocytes.<sup>9</sup>

To our knowledge this is the first reported case of proven B19-induced intrauterine anemia, in an otherwise normal child, which was successfully treated by IVIGs. If necessary, preparations of IVIGs with high titer of natural B19 specific antibodies could be tried.

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### Intramural hematoma of stomach after splenectomy for idiopathic thrombocytopenic purpura

Sir,

We cared for a patient who developed a massive intramural hematoma of the stomach after splenectomy for refractory idiopathic thrombocytopenic purpura (ITP). This is the first report on this complication after splenectomy for ITP.

A 74-year old man with ITP underwent splenectomy following administration of high-dose immunoglobulin. His clinical course after the operation was uneventful, but the response was transient and his platelet count returned to the pre-operation levels within a week of splenectomy. On day 20 after the operation, when his platelet count was 15,000/ $\mu$ L, he suddenly complained of a severe chest pain radiating to the back and his blood pressure dropped