Title: Parvovirus B-19 associated hemophagocytic reactive syndrome during pregnancy

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Objective: Acute infection with Parvovirus B-19 during pregnancy can result in pregnancy complications such as fetal anemia and hydrops. Hemophagocytic syndrome is a potentially fatal complication, though not commonly associated with parvoviral B-19 infections. The main characteristics of this syndrome are an inappropriate activation of histiocytes that leads to red cell phagocytosis. We describe the course, treatment and resolution of one of the few cases reported in the literature of hemophagocytic syndrome (HS) caused by parvovirus B-19 during pregnancy.

Design: Case report

Materials and Methods: A 27-year old, gravida 2, with previous cesarean, at 30 weeks of gestational age was referred to our tertiary care hospital presenting with pancytopenia and papular, purpuric eruptions on the hands and feet that was followed by high fever. Parvovirus B-19 infection was diagnosed by clinical settings, positive PCR (artus® Biotech Parvo B19 PCR Kit) and high titers of IgM. The bone marrow aspirate showed only 1% erythroblasts and macrophages with active hemophagocytosis. Coagulation analysis suggested a low degree of disseminated intravasal coagulation (low fibrinogen, high fibrinogen split products). A diagnosis of parvovirus B 19 associated hemophagocytic syndrome at 30 weeks gestation was made based on the positive results. Fetal surveillance was performed during pregnancy with serial Doppler ultrasound to rule out fetal anemia or hydrops. The patient received a high dosage of corticosteroids, one dose of epsilon aminocaproic acid (75mg/kg/day) and platelet apheresis was employed prior to caesarean section.

Results: An elective cesarean section was performed at 37 weeks of gestational age. The fetus did not show any clinical or laboratory evidence of parvovirus B-19 infection. Serial follow up of the patient showed improvement of the hematological parameters with steroid therapy at 8 weeks after delivery.

Conclusions: We report a rare case of hemophagocytic syndrome caused by Parvovirus B-19 infection during pregnancy. Haemophagocytic syndrome was managed symptomatically.

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