A Multidisciplinary Approach to the Management of a Parturient with Chronic Schistosomiasis

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Introduction: Schistosomiasis is a common parasitic infection prevalent in many parts of the developing world. In hyperendemic regions, 23.3% of pregnant women are infected with this parasite. We present a parturient with a twin gestation complicated by end stage liver disease, esophageal varices and pancytopenia resulting from chronic schistosomiasis.

Case Report: A French speaking 36 year old G4 P3003 presented at 31 3/7 weeks with monochorionic-diamniotic twins and PPROM. Her medical history included a prior malarial infection and chronic schistosomiasis resulting in end stage liver disease with portal hypertension, portal vein thrombosis, esophageal varices (banded during this pregnancy), marked splenomegaly, and pancytopenia. Medications included eplerenone, nadolol, pantoprazole and phytonadione. Pelvic exam revealed ruptured membranes and cervical dilation of 2cm. She was contracting every 5-7 minutes with a Category I tracing for both fetuses. Twin A was cephalic, twin B, transverse lie by ultrasound. Significant labs included WBC 2,400, Hct 29%, Plt 59,000 repeat 38,000, INR 1.4, AST 26, and ALT 12. Our patient was admitted for expectant management and started on ampicillin, erythromycin and a course of betamethasone. A multidisciplinary team including a hematologist, gastroenterologist, and transplant surgeon assisted with her care. Her labor progressed and she delivered in the OR setting without regional anesthesia. Apgars for baby A (1520 g) were 7 and 8, Apgars for baby B (1280 g) were 5 and 8. Vaginal delivery was complicated by PPH and retained placenta which required EUA and D&C under GA with endotracheal intubation. EBL was 2500mL with intraoperative fluid replacement of 2500mL crystalloid, 4 units PRBCs, and 4 units FFP. Continued bleeding required uterine artery embolization. She was discharged on POD #3, with appropriate follow up.

Discussion: The care of a patient with a complex medical history such as this requires a multidisciplinary team approach. Issues include possible need for re-banding of varices, splenectomy in the event of rupture, further liver function deterioration/need for transplantation, and massive hemorrhage from thrombocytopenia and coagulopathy, especially if cesarean delivery is necessary. Anesthetic management should include avoidance of regional anesthesia due to coagulopathy/thrombocytopenia, adequate IV access and ensuring appropriate blood product availability. Additional anesthetic goals include anticipation of pharmacodynamic/pharmacokinetic alterations of anesthetic drugs, maintaining perfusion to a compromised liver, and minimal manipulation of the airway and esophagus to avoid bleeding and prevent further disruption of varices.