Successful Management of Acetaminophen Overdose and Sickle Cell Crisis during Cesarean Section.

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Introduction: Acetaminophen overdose has been rarely reported in the parturient and can be associated with maternal and neonatal morbidity and mortality.1-2 We report the successful management of a parturient with sickle cell disease presenting with acetaminophen toxicity.

Case report: A 24-year-old P0121 at 29 weeks gestation with a history of sickle cell disease with multiple past transfusions presented to an outside hospital complaining of nausea, vomiting and hip pain consistent with sickle cell crisis. She denied any other past medical history. Her medications included prenatal vitamins and acetaminophen for hip pain. On admission, the patient was afebrile with a heart rate of 128 bpm and a blood pressure of 125/67. She was found to have cervical dilation of 2-3 cm with elevated transaminase levels with aspartate aminotransferase (AST) of 2773 IU/L and alanine aminotransferase (ALT) of 922 IU/L. Initial INR was 1.5, PTT 34, and platelets 225,000. Ultrasound revealed an enlarged and fatty liver. The patient then reported ingestion of acetaminophen 1300 mg as frequently as every 4 hours for 3 days. Treatment was initiated with morphine, N-acetylcysteine, betamethasone, oxygen, and hydration. Two days after admission, the decision was made to perform cesarean section due to non-reassuring fetal heart tracing. INR had decreased to 1.2, platelet count to 256,000, and ALT and AST to 932 and 933 respectively. The patient was afebrile with a blood pressure of 139/71 and a heart rate of 115 bpm. Spinal anesthesia was administered and the patient underwent an uncomplicated cesarean section. A viable baby girl was born with Apgar scores of 9 and 9 after which the patient’s care was transferred to the medical service for further management.

Discussion: The presentation of acetaminophen overdose with sickle cell crisis in the parturient presents challenges for the anesthesiologist. Acetaminophen toxicity can be associated with pronounced coagulopathy. Immediate treatment with N-acetylcysteine is critical for success. Monitoring of INR is essential for the anesthesiologist considering neuraxial anesthesia for cesarean or labor analgesia. Sickle cell disease increases risk to the parturient and fetus. Care is geared toward prevention of sickling crisis with active warming, volume maintenance in the setting of sympathetic blockade with neuraxial anesthesia and adequate oxygen administration.3 Close attention to the considerations particular to this patient’s condition allowed for a successful perioperative course.

References: