Abstract # 124

Anesthetic Management of the Parturient with Nephrotic Syndrome

Abstract Type: Case Report/Case Series
Heather A. Suss, M.D.; Ivan Velickovic, M.D.
SUNY Downstate Medical Center

Introduction: Nephrotic syndrome is a non-specific disorder of the kidneys, which is characterized by proteinuria (>3g/day), hyperlipidemia, hypoalbuminemia, and generalized edema. It has been reported to affect 0.012-0.025% of all pregnancies. Most commonly it results from preeclampsia, pre-existing glomerulonephritis, diabetes, renal vein thrombosis, amyloidosis, and hereditary nephritis. We describe the management of a patient that was admitted at 32 weeks gestation for generalized edema.

Case: A 26-year old female G2P1 was admitted to the department at 26 weeks gestation for generalized edema and oliguria during the two weeks prior to admission. The patient was noted to have significant proteinuria (>300mg on U/A). Nephrology was consulted and after a more thorough workup, a diagnosis of nephrotic syndrome was made. The patient was started on magnesium sulfate and was given intravenous hydration with normal saline. The decision was made to perform a Cesarean section if the patient’s condition worsened; however she improved and was eventually discharged to home. She returned to the department at 32 weeks gestation with complaint of a 6-pound weight gain in one week and generalized edema. She was found to be oliguric, hypoalbuminemic and had signs of hypovolemia, and as such she was treated with IV hydration, furosemide and albumin 5%. She was also given heparin for treatment of her hypercoagulable state. Cesarian section was performed the following day. The patient was prehydrated with albumin and CSE was performed with intrathecal administration of 13.5 mg bupivicaine, 10 mcg fentanyl, and 0.2 mg of preservative free morphine. The surgery was uncomplicated with an estimated blood loss of 800 ml and urine output of 100 ml during the 47-minute procedure. APGAR scores were 6 and 7 at 1 and 5 minutes respectively and the patient and neonate were discharged home on post-operative day 4.

Discussion: Pregnant women with renal disease have an increased risk of preeclampsia, fetal loss, intrauterine growth retardation, preterm delivery and prematurity. Timely renal biopsy would give the necessary information needed to make a diagnosis of the specific renal pathology and allow for appropriate therapy. Our nephrology colleagues decided to postpone the biopsy until after delivery due to relatively mild disease at 24 weeks of gestation. The severity of disease during this patient’s second admission required immediate surgery. In the absence of a definitive diagnosis we resorted to symptomatic treatment. Administration of albumin or colloid in a patient with nephrotic syndrome is controversial, however we felt that albumin would improve this patient’s intravascular volume, which would be beneficial prior to performing a regional anesthetic. Cautious fluid management and a well-titrated regional anesthetic were the goals of our treatment. There are no data to suggest that regional vs. general anesthesia would change the outcome of this case.