Management of an Intra-Abdominal Pregnancy: A Case Report

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Introduction: Intra-abdominal pregnancy is a rare form of extra-uterine pregnancy, representing about 1.3 percent of all ectopic pregnancies. It is associated with high maternal and fetal morbidity and mortality. Intra-abdominal pregnancies can be categorized as either primary or secondary, the later occurring when a tubal pregnancy later implants in the peritoneal cavity. Secondary intra-abdominal pregnancies are usually advanced at presentation and immediate surgical management is necessary due to the risk of hemorrhage. Pre-operative arterial embolization may be warranted to reduce the risk of hemorrhage. Intra-operatively the placenta can be left in situ or removed based on the location and extent of implantation and risk of bleeding.

Case Presentation: We present a case of a secondary intra-abdominal pregnancy in a 21 year old woman, discovered at 23 weeks gestation via ultrasound. She was previously healthy, with a BMI of 26.8 kg/m2 and two previous cesarean sections. The diagnosis of a left lower quadrant intra-abdominal pregnancy with two placental components was confirmed with MRI. An angiogram showed the placental arterial supply primarily arising from the left ovarian and uterine arteries. An exploratory laparotomy was planned in a hybrid operating room with vascular interventional radiology, vascular surgery, gynecologic oncology, general surgery and neonatology teams readily available. The anesthetic plan for the surgery included general anesthesia with a thoracic epidural for post-operative analgesia, an intra-arterial line, two large bore intravenous catheters and the immediate availability of cross-matched blood products and equipment for central venous catheter insertion. A viable preterm female infant was delivered from a gestational sac partially connected to the fimbrial end of the left fallopian tube. The infant weighed 580 grams and had APGARS of 5 and 7 at 1 and 5 minutes, respectively. The infant was resuscitated, intubated, and transported to NICU. The gestational sac was significantly adherent to the rectosigmoid colon. After delivery, adhesiolysis, enterolysis, left salpingo-oophorectomy, colotomy repair, and en-bloc removal of the placenta were performed. The total estimated blood loss was 700 mls. No blood products were transfused. The patient was extubated at the conclusion of the operation. She was discharged in good health from the hospital on post-operative day 7.

Discussion: Intra-abdominal pregnancies place the parturient and the fetus at high risk of morbidity and mortality. Diagnosis can be made with ultrasound, but the use of pre-operative MRI and angiography are important for providing information regarding the location of the pregnancy within the abdominal cavity and placental implantation. Careful planning and collaboration among a multidisciplinary team can help optimize outcomes.