Overdiagnosis of Abnormal Implantation of the Placenta: Implications

Abstract Type: Case Report/Case Series
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Background: Ultrasound (US) remains the primary modality for diagnosis of abnormal placental implantation (API). The role of MRI in diagnosing API is not clear, but studies using MRI have predicted a role of MRI when US is technically difficult or when results of the US are equivocal (1,2). We present a case where an erroneous diagnosis of API resulted in morbidity for the infant.

Case: A 22 y.o. G5P3105 with one previous cesarean delivery was found to have an anterior placenta previa with concern for placenta accreta on a routine ultrasound at 29 weeks gestation. MRI of the pelvis was then ordered which showed a “2/3 invasion of placenta into the myometrium.” A decision was made to perform a late preterm cesarean delivery at 34 weeks plus 2 days gestation followed with an immediate hysterectomy. Bilateral internal iliac artery balloons were placed by interventional radiologists prior to the c-section under local anesthesia. An arterial line and two 18G peripheral IVs were placed prior to induction of general anesthesia. After an IV induction and uneventful intubation, a midline incision was made and a male infant was delivered. Infant care was immediately taken over by the awaiting neonatology team. Following delivery the placenta separated spontaneously without any evidence of placenta increta. Oxytocin infusion was started, uterine tone was judged adequate and hysterectomy was not performed. Maternal blood loss during the procedure was approximately 500ml and patient was extubated at the end of surgery. APGARs for the pre-term infant were low at 1 and 5 minutes for which the infant was intubated and transported to NICU. The neonate was intubated for one day and had a overall NICU stay of 3 days.

Discussion: Incidence of API is expected to increase as the number of cesarean deliveries and maternal age at time of delivery continue to rise. Histopathologic examination of the placenta and uterus after delivery is the current gold standard for diagnosing API. A missed diagnosis of API can lead to significant parturient and fetus morbidity associated with massive peripartum hemorrhage; however a false-positive diagnosis of API as presented in our case also has significant implications. These include complications from invasive procedures for preventing and controlling maternal hemorrhage, risks of general anesthesia in the parturient and the fetus, complications of prematurity in the infant, waste of institutional resources and inefficient use of personnel.

Conclusion: There is need for a more accurate diagnostic modality for identifying API to avoid complications from underdiagnosis and overdiagnosis of API.

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