Managing Abnormal Placentation

by Roxane Holt, MD

What is abnormal placentation?

Abnormal placentation includes both placenta previa and morbidly adherent placenta. As the number of cesarean deliveries increases, we have seen an increase in abnormally adherent placentas, which include placenta accreta, placenta increta and placenta percreta. The incidence is now 1 in 533 pregnancies (1982-2002).

Placenta previa occurs when the placenta covers the internal cervical os. Placenta accreta, increta and percreta occur when there is an abnormal attachment to the myometrium, or invasion into the myometrium or through the uterine serosa, respectively. In the absence of an accreta, the placenta previa can be a mild complication requiring a cesarean delivery that will usually proceed without complications other than possibly a transfusion.

When a placenta previa is identified, the placenta should be thoroughly evaluated, especially in the setting of prior cesarean delivery. Ultrasound can be performed to identify markers associated with morbidly adherent placentas. These markers include loss of the echolucent line behind the placenta, abnormal vasculature and irregularities of the uterine serosa-bladder interface, placental lakes, especially four or more, and a thin myometrium.

When placenta previa is present with a history of cesarean delivery, the risk of an accreta being present with first cesarean is 3.3 percent, two cesareans is 11 percent, three cesareans is 40 percent, four cesareans is 61 percent, and five or more cesareans is 67 percent. Cesarean delivery with a placenta accreta is fraught with complications.

When a morbidly adherent placenta is suspected on ultrasound, a multidisciplinary approach has been shown to improve outcomes. The treatment for most women that have a pregnancy complicated by placenta accreta is a planned cesarean hysterectomy. The placenta is not manipulated during the delivery. Profound hemorrhage can occur when the placenta is tugged on, which can lead to significant morbidity and even death for the mother. When a placenta accreta is present and a hysterectomy is performed, there are additional risks including a 12 to 15 percent risk of cystotomy, 23 to 27 percent risk of intensive care unit stay, and 5 to 11 percent risk of reoperation. During cesarean hysterectomy, there is an average transfusion of five units of blood in 75 percent of patients, and some will receive a massive transfusion of more than 10 units of blood.

Hysterectomy specimen from a 26-year-old female showing placenta (upper half) attached directly to the myometrium (lower half) without any decidua diagnostic for placenta accreta (hematoxylin and eosin stain, original magnification 100x).

Photo credit: Aliya N. Husain, MD
For these reasons, we recommend referral of these patients to a tertiary center for care by a multidisciplinary team that can work together to decrease these morbidities. Delivery is planned at 34 0/7-35 6/7 weeks in the absence of bleeding complications to avoid labor.

Who should be referred for imaging of suspected accreta?

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Which patients should be referred for delivery?

- Suspicion for placenta accreta on sonogram
- Placenta previa with abnormal ultrasound appearance
- Placenta previa with ≥3 prior cesarean deliveries
- History of classical cesarean delivery and anterior placentation
- History of endometrial ablation or pelvic irradiation
- Inability to adequately evaluate or exclude findings suspicious for placenta accreta in women with risk factors for placenta accreta
- Any other reason for suspicion for placenta accreta

What abnormal placentation services are offered at the University of Chicago Medicine?

Our team has both imaging and delivery expertise for patients with abnormal placentation including the morbidly adherent placenta. We offer a thorough evaluation of your patient and full transfer of care if a placenta accreta is suspected. We give obstetricians the peace of mind that their patients will be well cared for through prenatal care, delivery and recovery.

Our multidisciplinary team includes leaders in maternal-fetal medicine (Roxane Holt, MD), ultrasonography (Jacques Abramowicz, MD), gynecologic oncology (John Moroney, MD), urogynecology (Juraj Letko, MD), obstetric anesthesia (Barbara Scavone, MD), labor and delivery nursing, gynecologic nursing, neonatal intensive care, abdominal MRI radiology (Aytekin Oto, MD, MBA), transfusion services, and pathology (Ricardo Lastra, MD).

What can your patient expect?

The initial visit consists of a consultation and ultrasound to evaluate the mother, the baby and the placenta. In some cases, an MRI may be performed at the University of Chicago Medicine. Together with your patient, we formulate a plan for a scheduled delivery. Our multidisciplinary team carefully plans the surgical management of the pregnancy complicated by accreta – a scheduled preterm cesarean hysterectomy in most cases. We also have a contingency plan in the event that the patient requires expedited or emergent delivery due to preterm labor or hemorrhage. Along the way, we continue to update you on the plan, and send you a report after delivery.

For consultation about a patient with abnormal placenta, please call 773-702-5200.

References
