

Perinatal Challenges in Pregnancy: Placental Diseases, Vaginal Bleeding, Intrapartum Ultrasound, and Postpartum Complications

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ABSTRACT

The perinatal period begins at 20th to 28th week of gestation and ends to 4 weeks after delivery. Perinatal period comprise of prenatal, intrapartum and postnatal periods. Ultrasound plays some specific roles for diagnosis and management of perinatal challenges in pregnancy.

Placental Diseases: A thorough evaluation of the placenta should be an integral part of every obstetric ultrasound examination. Knowledge of the normal anatomy of the placenta as well as of placental pathology is necessary. Abnormalities of placenta is related to a. location, b. shape, c. size, d. texture, and e. retro-placental structures.

Vaginal Bleeding: Bleeding is a common complication of pregnancy and a frequent indication for sonography. Ultrasound plays an important role in the workup of the patient who presents with vaginal bleeding. Bleeding is one of the three leading causes of maternal death. The obstetric causes of hemorrhage are placenta praevia, placental abruption, vasa praevia, circumvallate placenta, and uterine rupture.

Intrapartum Ultrasound: During centuries, obstetricians have worked in a blind environment, and they just had to rely only on their fingertip sensations with no visual access to the neonate's head or pelvic bone. Ultrasonography use has made invisible visible, and with ultrasound, obstetricians are making a giant leap forward, clinical evaluation remaining the gold standard for managing labour. Ultrasound examination is more accurate and reproducible for evaluating cervical dilatation, fetal head station, and fetal head position.

Postpartum Complications: The maternal complications arising in the period from puerperium until roughly 6 to 8 weeks thereafter is usually called postpartum complications, those are obstetric hemorrhage, preeclampsia, and puerperal infection. Hematoma is readily demonstrated with ultrasound and may indicate unrecognized hemolysis, elevated liver enzymes, and low platelets. Postpartum fever is generally defined as any temperature $> 38^{\circ}\text{C}$ [100.4°F] on any 2 days of the first 10 days after delivery.