Role of Ultra-Sonographic Imaging in Intrahepatic Cholestasis of Pregnancy for the Prevention of Fetal Intrauterine Death

Noha Fouad Abed Althagafi
King Saud bin Abdulaziz University for Health Sciences, King Abdullah International Medical Research Center, Riyadh, Saudi Arabia

Maad Galal
Bachelor of Medicine (MBBS)

Abstract

Introduction: Intrahepatic cholestasis of pregnancy is the most common liver condition during pregnancy (ICP). Due to a lack of understanding of the underlying causes and pathophysiology of ICP, treatment options and management are restricted. Pregnancy-related intrahepatic cholestasis raises maternal morbidity, is linked to poor perinatal outcomes, and may recur in subsequent pregnancies. ICP is associated with higher risks for respiratory distress syndrome, meconium-stained liquor, fetal asphyxiation, and stillbirths. 80% of the affected women arrive after the first 30 weeks of pregnancy. Individuals with ICP at 37–38 gestational weeks demonstrated the greatest increases in adverse outcomes for both the infant and the mother.

Brief Medical History: A 28-year-old female G3P2, a known case of cholestasis of pregnancy managed with ursodeoxycholic acid. She was admitted to the antenatal ward at 32 weeks' gestation with severely elevated levels of bile acids (63.7), for monitoring.

She had a past Obstetric history of the same condition in the previous two pregnancies Both of them were delivered by emergency cesarean sections before term due to placenta abruption (at 30 weeks & 37 weeks), and the neonates were admitted to NICU.

During her current pregnancy at 32 weeks, she was admitted to the hospital for monitoring as Cardiotocography BID after admission (CTG) showed fetal tachycardia with moderate variability. Fetal tachycardia was not associated with maternal tachycardia, or fever, and did not respond to IV hydration. So Obstetric ultrasound done and the finding:

A hypoechoic area suggestive of marginal sub-chorion bleed measuring 3.2x 0.9 cm was seen in the left upper margin of the placenta (Figure 1). A hypoechoic area measuring 6.7 × 0.8 cm with no vascularity was also noted behind the body of the placenta, suggestive of placenta abruption.

Figure 1