

Discordant triplets: A rare case of sFGR in a monochorionic triamniotic pregnancy

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ABSTRACT

Introduction: Monochorionic triamniotic (MCTA) triplet pregnancies are rare and associated with significant perinatal risks, including twin-to-twin transfusion syndrome (TTTS), twin anaemia-polycythemia sequence (TAPS), and selective fetal growth restriction (sFGR). Selective FGR occurs due to unequal placental sharing and presents unique challenges in prenatal surveillance and intervention, especially in higher-order multiple pregnancies. **Case Description:** A 22-year-old primigravida with a spontaneously conceived triplet pregnancy was referred at 20 weeks of gestation following a first-trimester ultrasound that confirmed a monochorionic triamniotic pregnancy. Serial ultrasound assessments were initiated every two weeks. At 24 weeks, ultrasound revealed discordant fetal growth with one fetus measuring below the 10th percentile and abnormal umbilical artery Doppler findings (AEDF) – consistent with Type II sFGR in one triplet (Triplet C). Doppler studies showed absent end-diastolic flow in the umbilical artery of the growth-restricted fetus, while the other two fetuses exhibited normal growth and Doppler parameters. No signs of TTTS or TAPS were observed. Multidisciplinary counselling was conducted with maternal-fetal medicine specialists and neonatologists regarding prognosis, monitoring strategies, and possible interventions. The pregnancy was closely monitored with biweekly growth scans and Doppler studies. The restricted fetus demonstrated stable but persistently abnormal Dopplers without signs of fetal compromise. At 26 weeks, Triplet C umbilical Dopplers remained AEDF and this was followed by Triplet B. More frequent advanced Dopplers were performed to monitor these Triplets throughout which the DV- A wave remained positive, although there were multiple episodes of AEDF & normal EDF in the umbilical Dopplers of Triplet B, C. At 28 weeks onward, both Triplet B, C demonstrated raised PI in their umbilical Dopplers which is evidence of the complexity the vasculature of these MCTA twins. We closely monitored these triplets while preparing for early delivery. At 30 weeks 3 days patient went into labour and 3 fetuses were delivered via EMLSCS with good AS of 8, 9. All infants were discharged home in stable condition. **Discussion:** Selective fetal growth restriction in MCTA triplets is rare and poses complex management challenges due to shared placental circulation and the risk of inter-fetal hemodynamic compromise. In this case, expectant management with close surveillance allowed for prolonged gestation and favourable neonatal outcomes. Management decisions must be individualised, taking into account gestational age, Doppler findings, signs of fetal compromise, and parental preferences. Early referral to specialised centres is essential for optimal outcomes.