Analysis of pregnancies which ended up in delivering small for gestational age fetus in tertiary perinatological center

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Introduction
Fetal growth restriction can be diagnostically challenging in clinical practice. The aim of the present study was to analyze medical data of all neonates with birth weight (BW) below 10th percentile born in a tertiary perinatological center.

Methods
This was a retrospective cohort study carried out in a tertiary perinatological center
Inclusion criteria: BW of newborn <10th percentile
Monitored parameters: estimated fetal weight (EFW), EFW percentile, BW, BW percentile, type of delivery Doppler parameters

Endpoints
a) number of fetuses with FGR, SGA and unrecognized newborns with BW below 10th pct.
b) The accuracy of FGR/SGA diagnosis
c) BW percentile and its relationship with the timing of delivery
d) type of delivery and its relationship with FGR/SGA diagnosis

Key findings
- 44.4% were FGR, 38.9% SGA, 6.7% were AGA and 10% could not be diagnosed due to missing EFW and/or Doppler parameters
- 26.7% had BW ≤ 3rd pct, 63.3% had BW between 3rd and 10th pct. and 10% had BW > 10th pct.
- The diagnosis of FGR/SGA (made prenatally) was confirmed in 63% of cases
- 21.1% of neonates with missing Doppler had BW ≤ 3rd pct. Of which 50% was delivered after 40th gestational week

Conclusion
- We analyzed a cohort of 90 neonates with BW<10th pct and focused on the accuracy of FGR/SGA diagnosis, timing and type of delivery
- Diagnosis of FGR/SGA was confirmed in 64% of cases, the other cases were misdiagnosed or had missing Doppler data
- 21% with missing data had BW<3rd pct and some were delivered after 40th gestational week