Perinatal outcome of monochorionic twin pregnancies with selective IUGR and absent or reversed end diastolic flow in Umbilical artery Doppler below 20 weeks' gestation

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Objective
The aim of this study is to evaluate the perinatal outcome of monochorionic twin pregnancies with selective IUGR and absent or reversed end diastolic flow (AREDF) in umbilical artery (UA) Doppler detected, prior to 20 weeks of gestation.

Methods
This is a retrospective study of monochorionic twin pregnancies managed in a tertiary fetal medicine centre over the last five years. A total of 5221 USS reports from local electronic database were analysed for this study. The study subjects were divided into two groups based on the gestation at which AREDF was detected first. Group I included women in whom AREDF developed before 20 weeks gestation and Group II after 20 weeks gestation. In this study we focused on the perinatal outcome of the women in Group I.

Results
A total of 331 monochorionic twin pregnancies were identified. 161 (48.6%) had positive EDF in UA Doppler. There were 49 cases (14.80%) of AREDF in UA Doppler in any gestation of which 27 cases (55.10%) corresponded to IUGR with AREDF in UA Doppler below 20 weeks of gestation. 15 out of these 27 pregnancies had live births (55.55%). There were 6 intrauterine deaths (22.22%) and 5 women opted for termination of pregnancy (18.51%). There was a neonatal death within the first week after birth.

Conclusion
Perinatal outcome of monochorionic twins with sIUGR and AREDF in umbilical artery Doppler is not so poor as it was thought in the past. Normal Doppler studies are associated with a better prognosis. More than half of the pregnancies with abnormal UA Doppler studies in early second trimester had successful live births. The results of this study will help us in clinical decision-making as well as to plan the management of monochorionic twin pregnancies with abnormal umbilical artery Doppler during the first 20 weeks of pregnancy.