The prevalence and clinical features of twin to twin transfusion syndrome with onset during the third trimester

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Objective
To describe the incidence and clinical features of twin to twin transfusion syndrome (TTTS) with third trimester onset.

Methods
We performed a retrospective chart review of monochorionic diamniotic (MCDA) twin pregnancies delivered during a recent four year period. The inclusion criteria was women who received prenatal care at our center from the first trimester onwards. Serial ultrasound examinations were performed at least every two weeks until delivery to evaluate fetal growth as well as to estimate amniotic fluid volume. The prevalence of TTTS after 28 weeks of gestation and clinical features, including neonatal outcomes and placental findings, were elucidated.

Results
Meeting our inclusion criteria we found 143 MCDA twin pregnancies, including 15 cases of TTTS (10%). Five cases (4%) developed TTTS during the third trimester and underwent a cesarean section immediately after the diagnosis. All these women exhibited either abdominal distension or uterine contractions. Recipient twins tended to require more intensive cardiopulmonary treatment than donors; however, neither a recipient nor a donor twin suffered neonatal death or neurological impairment. Placental arterio-arterial anastomoses were detected in three out of five cases. Arteriovenous anastomoses were present in all cases; however, venovenous anastomoses were not found in any case.

Conclusion
TTTS is a relatively rare complication during the third trimester. It is imperative to look for TTTS signs in MCDA twin pregnancies when maternal abdominal pain or contractions appear, even if they seem insignificant.