Temporal trends in referral and outcome following fetoscopic coagulation of anastomoses for TTTS over a 10-year period

Stirnemann J, Berlingo L, Bussières L, Ville Y
Obstetrics and maternal-fetal medicine, Hopital Necker Enfants Malades, AP-HP, Université Paris Descartes, Paris, France

Objective
To analyze the temporal trends of severity at referral and outcome following fetoscopic coagulation of anastomoses for TTTS between 2003 and 2012 in our reference center, while developing a national fetoscopy network since 2008.

Methods
All consecutive cases referred to our unit between 2003 and 2012 were analyzed by 2-year periods. Severity at referral was assessed by Quintero stages, gestational age and placental location. Outcome was analyzed according to 1, 2 or at least one twin alive at birth as well as gestational age at delivery.

Results
797 cases were analyzed with between 129 and 192 cases per 2-year period. Severity at referral increased over the study period: the proportion of Quintero stage 3 rose steadily from 37% in 2003-2004 to 52% in 2011-2012, together with increasing proportions of cases < 18 weeks (11% and 16% respectively) and with anterior placenta (49. 6% and 56. 7% respectively) with a marked shift in 2008. Concurrently, survival of at least one twin increased from 82% to 85% between 2003 and 2008, decreasing to 72% in 2011-2012. Similar trends were found for survival of one and both twins. The proportion of deliveries < 32 weeks remained stable (between 28 and 36%) as well as the rate of dual loss < 24 weeks (between 8 and 13%).

Conclusion
The creation of a national fetoscopy network around our reference center has shifted our referrals towards more severe cases as a consequence of case selection in developing centers.