
Serena Girardelli¹,², Caroline Shaw¹,³, Christoph Lees¹,³

¹Centre for Fetal Care, Queen Charlotte’s and Chelsea Hospital, Imperial College London, United Kingdom. ²Obstetrics and Gynaecology, Università Vita e Salute San Raffaele, Milan, Italy. ³Imperial College Healthcare NHS Trust, London, United Kingdom

1) Patient Recruitment
22 y.o., MCDA, 14/40. Research US scan with Canon Aplo i900 and different colour Doppler filters (Figure 1) allowed for identification of the vascular equator and crossing blood vessels.

2) Prediction
Elevated TTTS risk – furthermore, in case of co-twin demise, the recipient would be at higher risk of neurological sequelae/in utero death secondary to hypotension.

3) Figure 1
Large caliber superficial arterio-venous anastomoses, smaller venovenous anastomoses and large deeper veno-venous anastomoses identified.

4) Outcome
Following a normal 16 week ultrasound examination at 18 weeks the patient was found to have amniotic fluid discrepancy with selective intrauterine growth discrepancy of fetus B (20% weight discrepancy with fetus A) and normal arterial and venous Doppler for both twins. She was managed conservatively for one week after which intrauterine fetal death of both twins was confirmed.

Figure 1: Placental map of the angioarchitecture in the monochorionic placenta using advanced dynamic flow (ADF) filter.