

Case Background

39 years old, P0+1, BMI 31. Good health. Family history of hypertension. IVF pregnancy donated oocyte, day 5 embryo transfer.

1st trimester scan confirmed a DCDA pregnancy.

20+1: spontaneous rupture of membranes around Twin 1. USS: Twin 1: anhydramnios, Congenital Cystic Adenomatoid Malformation (CCAM) of lower lobe left lung, anatomy could not be fully assessed. Twin 2: normal female anatomy. Discordance ~2%.

Admitted for observation, erythromycin prophylaxis commenced.

Antenatal Care

20+6: spontaneous vaginal delivery of Twin 1, born with no signs of life. Labour abated and not augmented. Twin 2 shown to have normal heart-rate on auscultation.

21+0: TA-USS demonstrated normal anatomy of Twin 2, including liquor volume, umbilical, and uterine artery Dopplers. Placenta showed no signs of separation. Cervix closed.

21+1: discharged home. 2-3x antenatal reviews per week. Growth scans every 2 weeks, interval USS of LV/Doppler.

23+6: report of uterine tenderness and intermittent pelvic pressure. Intra-uterine transfer (IUT) to nearby hospital with co-located level 3 NICU.

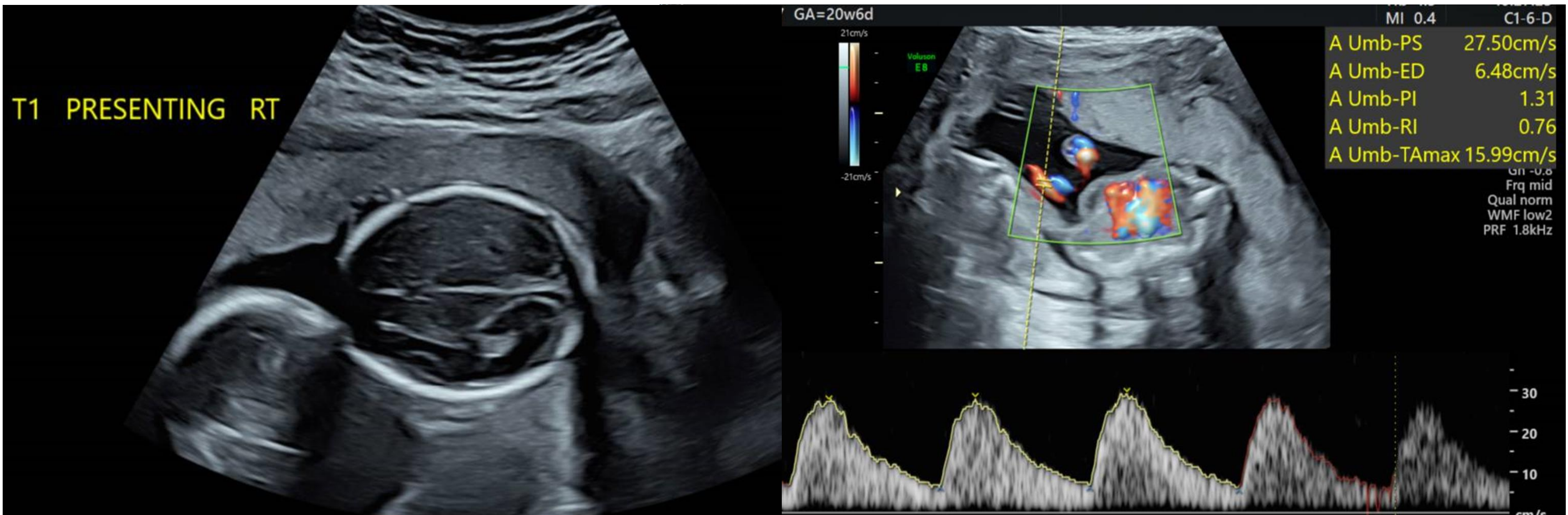
- Antenatal corticosteroids (CS)
- IV MSCO4 for fetal neuroprotection
- PO Nifedipine for tocolysis

At the receiving hospital; the CS for lung maturity were completed, Mg SO4 and nifedipine were stopped. 12 days of observation. Outpatient regime restarted after discharge.

Delayed Delivery by 91-days in a DCDA twin pregnancy, a case report

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We present our case as most of her care was performed on an out-patient basis, with only a 10-day course of oral antibiotics.



Delivery

34+1: single dose of CS for fetal lung maturity

34+5: planned Lower Segment Caesarean Section (LSCS)

Twin 2 delivered in good condition, received 2 minutes of delayed cord clamping; birth weight 2.2kg (12th centile). The post-operative period was uncomplicated.

Recommendations

- 1) *A working group to establish recommendations for clinical practice.*
- 2) *Improved data on maternal outcomes including rates of sepsis following cervical sutures.*



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Discussion of Literature

There is consensus that the delayed delivery of a second twin leads to improved birthweight and mortality, and reduced length of stay in NICU, compared to their co-twins delivered first, but a paucity of reported maternal outcomes.

There has been a huge advancement in the field of Neonatology and a fall in the age of viability. Neonatologists are resuscitating at earlier gestational age and driving improvements in worldwide morbidity and mortality for babies born pre-term.

Much of the literature is >10 years old, with neonatal outcomes incomparable to contemporary data.

There is significant heterogeneity among the proposed management described in the literature for achieving delayed delivery of the second twin.

A consensus on how best to provide tocolysis; which antibiotic regimes are most efficacious; the recommended frequency of scanning; and optimal timing of delivery would enable better counselling for this group.

Extreme pre-term delivery is an occurrence which we expect to see with increasing frequency.

Goodfellow et al. have recently performed a UK national prospective observational cohort study into the maternal and neonatal outcomes of Preterm Prelabour Rupture of Membranes (PPROM) before 23 weeks. This confirms an over-representation of twin pregnancies (10% of cases) with a higher rate of significant maternal morbidity from sepsis with a twin pregnancy compared to a singleton pregnancy (26% compared to 12%).