

Preterm Delivery – Matching Risk Factors to Occurrence

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OBJECTIVE: Predicting preterm labour is an art and science requiring further research. Preterm delivery risk factors have been identified in the literature. However, the presence of risk factors does not always correlate with subsequent preterm delivery. Conversely, the absence of risk factors does not preclude preterm delivery. A literature review did not identify home delivery of multiple fetus pregnancy in patients with preterm delivery risk factors.

CASE: A 37-year-old multigravida spontaneously pregnant with DCDA twins presented with retained placentas at 26+1 weeks gestation after an unintended home delivery, and a history of a few days of dark per vaginal loss, no uterine activity. Earlier that day, she had been diagnosed with a cervical ectropion on a long-closed cervix, with no active bleeding, assessed as clinically well, and discharged with safety netting advice. Vaginal swabs collected at the time were negative for pathogens. Her risk factors for preterm delivery included multiple pregnancy and one previous vaginal delivery at 36+6 weeks gestation. She was a nonsmoker, with a normal cervical length at morphology scan, 2-year interpregnancy interval, no identified uterine anatomical abnormalities, lower genital tract or amniotic fluid infections, or chronic conditions. She had a 3% probability of spontaneous delivery before 30 weeks per QUIPP.

Hours later, she called the assessment unit having experienced suprapubic cramping. She was advised to present for assessment. She presented to hospital via ambulance 3 hours post this advice, having delivered about 10 min post advice. The twins were delivered 2 min apart with twin 2 presenting feet first. Retained placentas were removed manually. Both babies were self-ventilating on arrival but soon showed signs of respiratory distress requiring intubation, ventilation, and transfer to a neonatal intensive care unit. Placental histology confirmed DCDA pregnancy with no apparent pathology.

DISCUSSION: Antenatal assessment, risk factor identification, modifiable risk factor mitigation, maternal surveillance, and providing adequate advice are evidence-based tenets of care. In this case, the patient had non-modifiable risk factors and good access to a maternity assessment unit for prompt care. This case highlights the opportunity to develop tools to aid predicting preterm delivery likelihood, as delivery was not successfully predicted only a few hours prior to birth.

CONCLUSION: Providing care contemporaneously with established standards of care/guidelines continues to be the aim of management. Clinical changes can occur at any time in pregnancy. Predicting preterm delivery requires further research.