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FIONA STANLEY hospital

A Breech, Bicornuate Post-partum Haemorrhage

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INTRODUCTION

A bicornuate uterus is a congenital Müllerian malformation. It is recognizable by its heart shape and arises due to defective fusion of the Müllerian ducts during embryogenesis. Diagnosing these anomalies is challenging due to their diverse presentations and the absence of a universal classification system. Women with bicornuate uteri have been shown to have increased risk of miscarriages (1), preterm labour, malpresentation (2), neonatal malformations and post partum haemorrhage (PPH). Managing pregnancy and delivery in these cases requires careful planning and skilful surgical techniques.

CASE

A 26-year-old G3P2 patient, with a known congenital Müllerian malformation, presented at 34+5 weeks gestation with preterm labour symptoms and scar pain. She subsequently underwent a category 2 C/S, resulting in the safe delivery of the infant. However, several hours post-delivery, she experienced a postpartum haemorrhage (PPH) necessitating her return to theatre.

The patient had a history of two prior C/S deliveries, bicornuate uterus and had been receiving progesterone pessaries due to a previous preterm birth. Additional medical history included essential hypertension and a BMI of 47.5. Fetal growth ultrasounds during this pregnancy identified a normally grown foetus located in the left uterine horn, a deviation from her previous pregnancies in the right horn.

PPH management included uterotonic administration and uterine massage. An examination under anaesthesia was then performed and revealed the presence of a vaginal septum with an apex communication. Although there was a singular cervical body, 2 cervical canals were present. The left side of the vaginal canal was entered and both uterine cavities were explored. The left uterine horn was empty however, the right horn was distended with large clots. Despite initial evacuation, ongoing uterotonic administration and uterine massage, bleeding persisted.

With difficulty, a Bakri balloon was inserted by entering the left vaginal septum and placing the Bakri balloon through the left cervical canal, into the right horn under ultrasound guidance. Haemostasis was achieved. Histology was sent, reporting a decidual reaction with haemorrhage. The total EBL post Bakri insertion was 800mL.

Subsequently, the patient was admitted to ICU for close observation. After intravenous antibiotics, she underwent an uneventful Bakri balloon removal 24 hour later. She a discharged two days later.

DISCUSSION

Bicornuate bicollis uteri are rare and challenging to diagnose due to the lack of a universal classification and diagnostic pathways (3). In this case, ultrasound imaging was not able to consistently identify this anomaly. Secondary imaging modalities such as Magnetic Resonance Imaging (MRI), which the gold standard (1, 4) or a hysterosalpingography could have aided diagnosis.

PPH is more common for women with Müllerian anomalies, despite this there is limited literature regarding PPH management in this specific population. In Australia, PPH remains a leading cause of maternal mortality (5). This case presents the successful utility of a Bakri balloon, which inserted into one horn of a bicornuate uterus to manage a PPH, there is only one other documented case in the literature (6).

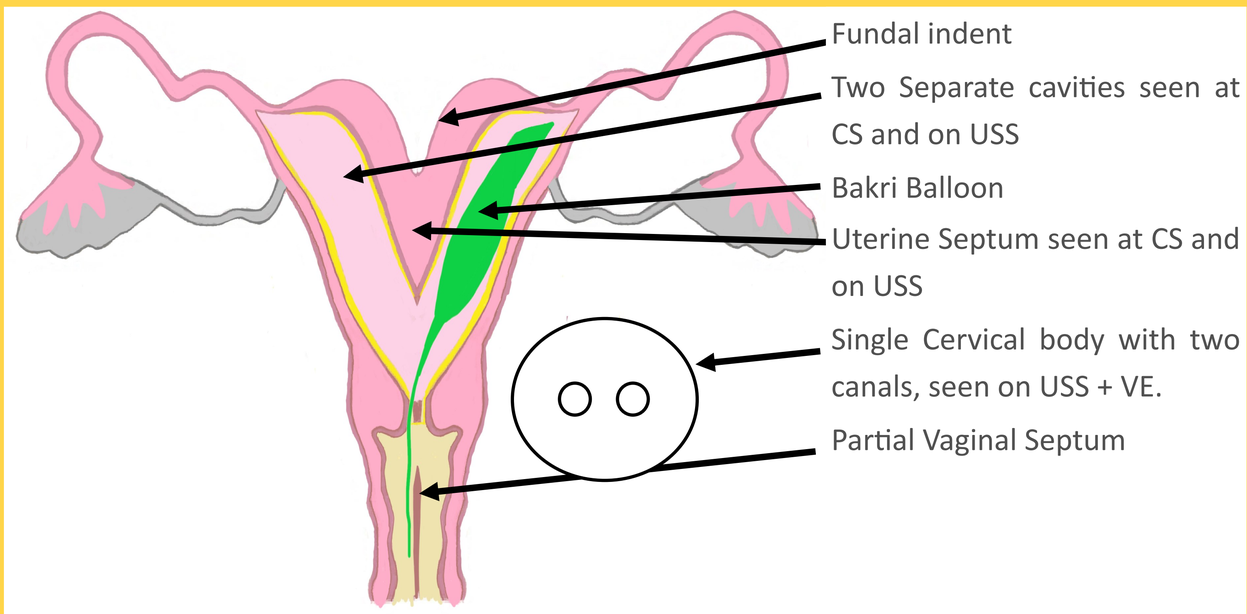

Figure 1: Pictoral representation of Bicornuate patient anatomy

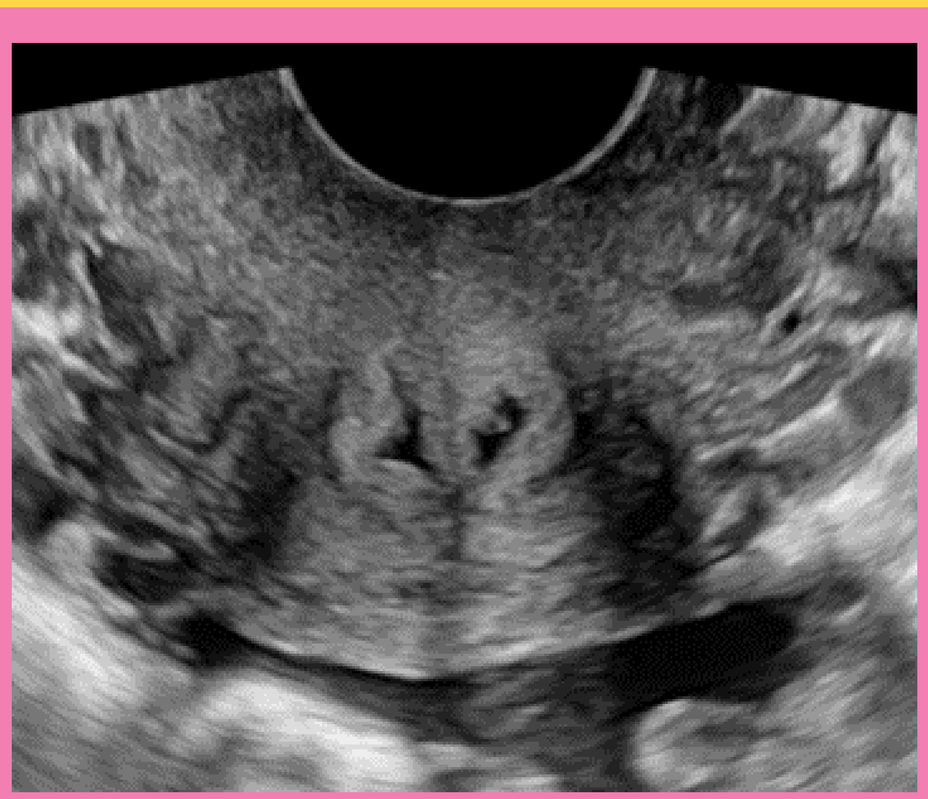

Fig 1: Ultrasound– Bicornuate uterus

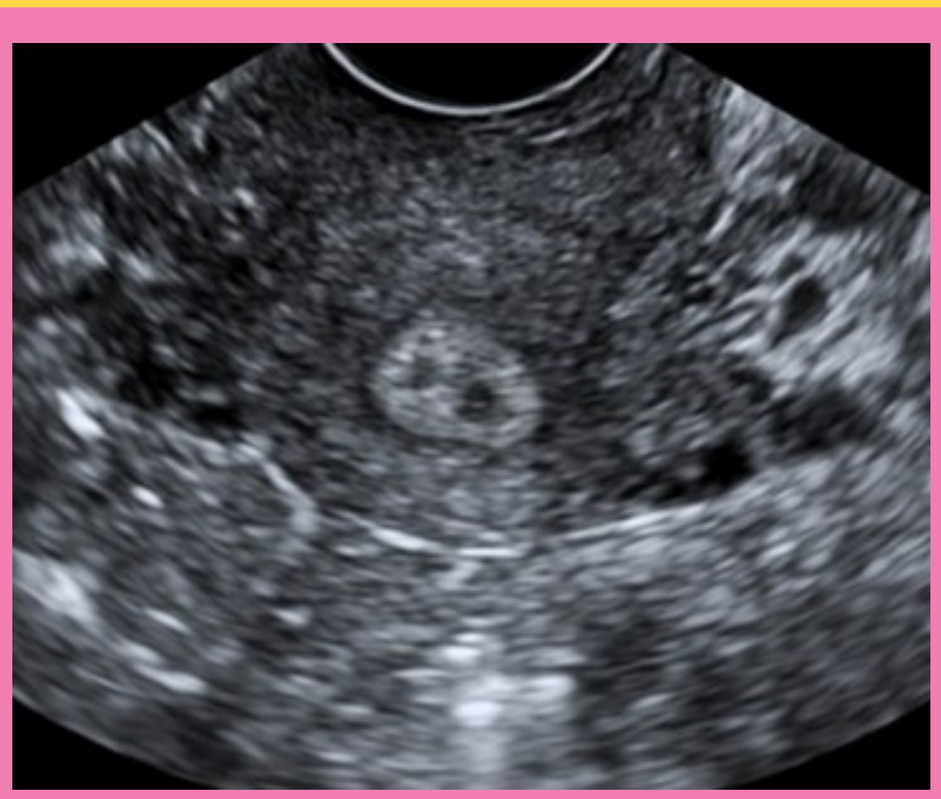

Fig 2: Ultrasound– Bicolpos cervix

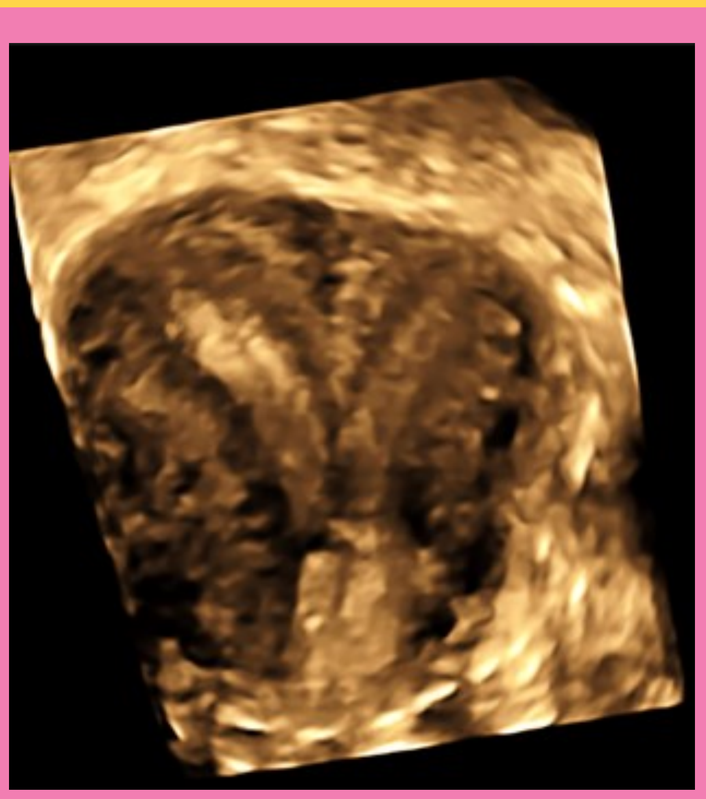

Fig 3: 3D Ultrasound– Bicornuate

CONCLUSION

- Post-partum haemorrhage can be a life-threatening complication of pregnancy. This case demonstrates the successful use of a Bakri balloon in the presence of a bicornuate bicollis uterine malformation.
- A universal classification system of Müllerian abnormalities would aid in optimizing the care and outcomes for these individuals with Müllerian anomalies.
- This case highlights the utility of additional imaging or surgical modalities to improve classification and diagnosis of these complex anatomical variants.
- The plethora of complications associated with Müllerian anomalies is exemplified in this case. It emphasises need for these women to have optimal antenatal monitoring and consultant involvement at a tertiary level centre.

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