

Uterine Incarceration and Placenta Increta Following Previous Uterine Surgery - A Case Report

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Introduction

Uterine leiomyomas are a common gynaecological finding with the potential to cause subfertility, pregnancy loss, preterm labour and fetal growth issues. While a myomectomy may be indicated for leiomyomas contributing to subfertility or pregnancy complications, this procedure can also impact future pregnancy outcomes.

Case summary

This case pertains to a 39-year-old G1P0 with a spontaneous pregnancy 10 months post laparoscopic removal of an intramural fundal leiomyoma (8x7x4cm) where the endometrial cavity was breached. Her history is significant for uterine artery embolization (UAE) and an abandoned hysteroscopic and open myomectomy. At 19+4 weeks MRI confirmed gravid uterine incarceration (GUI; Fig 1A) following routine morphology and she experienced dull pelvic pain, urinary hesitancy and dyschezia. Spontaneous de-incarceration was confirmed at 22 weeks following a transient increase in pelvic pain. At 34 weeks she presented with threatened preterm labour, decreased fetal movements and a non-reassuring fetal heart rate. As previous MRI reports were suggestive of focal placenta accreta, an emergency caesarean section with pre-operative angiographic placement of bilateral internal iliac artery balloon catheters was

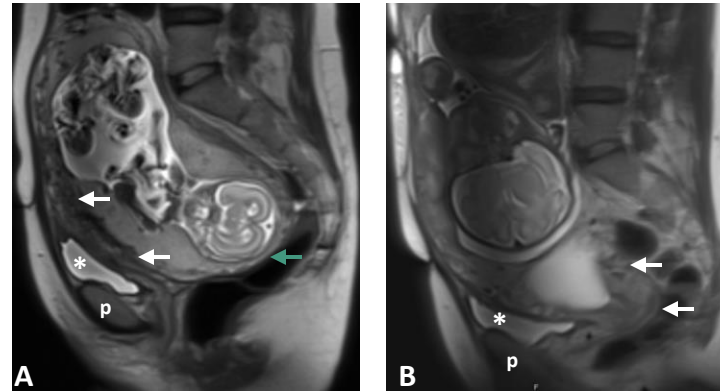


Figure 1. Sagittal T2-weighted MRI at 19 (A) and 31 (B) weeks gestation. **A)** A retroverted gravid uterus with the uterine fundus (green arrow) trapped below the sacral promontory. The cervix (white arrow) is elongated anteriorly and superiorly. The urinary bladder (*) is displaced superiorly to the pubic symphysis (p) and compressed anteriorly. **B)** Normal anteverted position of the gravid uterus.

performed. Following delivery of a live infant, failure of placental separation with torrential haemorrhage prompted conversion to hysterectomy. Placental and uterine histology later confirmed fundal placenta increta.

Discussion

GUI is a rare but serious pregnancy complication in which the uterine fundus remains trapped in the pelvic cavity after the first trimester. Risk factors include a

retroverted uterus, leiomyomas, pelvic or uterine surgery and adhesions [1-2]. While successful manual reduction has been reported, it is cautioned against after 20 weeks gestation due to the poor success rate and the risk of preterm labour and pregnancy loss [2]. In this case, post-operative adhesions and the late gestation at diagnosis, were thought to reduce the success of manual uterine replacement and the patient elected for conservative management.

Placenta accreta spectrum (PAS) disorder can occur secondary to endometrium-myometrial interface defects. While myomectomy has been suggested to have a low-risk of PAS, the risk may be increased if the endometrial cavity is breached [3]. Additionally, UAE for the treatment of leiomyomas and post-partum haemorrhage has been implicated in the development of PAS disorders [4,5]. We hypothesize that in our case, placenta increta in the region of previous myomectomy is the result of previous laparoscopic myomectomy and/or UAE.

Conclusion

This case highlights that myomectomy prior to pregnancy may predispose to uterine incarceration and abnormal placentation. Consideration and discussion of these complications should occur prior to myomectomy in fertile women.

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