Hemi-hysterectomy for placenta accreta in a bicornuate uterus

E Ashton1*, B Corbett1, C Morosky2

ABSTRACT

Introduction
This paper reports a case of hemi-hysterectomy for placenta accreta in a bicornuate uterus.

Case report
This is a case of a 29-year-old G3P1021 whose pregnancy was complicated by a bicornuate uterus, history of cervical incompetence with cerclage placement, and retained placenta in the right uterine horn after a term vacuum-assisted vaginal delivery. Magnetic resonance imaging demonstrated placenta increta in the right uterine horn and the patient underwent an abdominal supra-cervical hemi-hysterectomy and right salpingectomy.

Conclusion
Our patient’s three D&C procedures and her uterine anomaly likely contributed to her placenta accreta and need for this unique fertility preserving surgery.

Introduction
The incidence of hemi-hysterectomy during pregnancy is extremely rare. Two case reports identify this condition. One describes a hemi-hysterectomy for a rudimentary uterine horn pregnancy followed by two normal gestations1. The second was performed for a uterine rupture at an early gestation in a unicervical bicornuate uterus2. We report the case of a post-partum hemi-hysterectomy for a placenta accreta.

Case report
A 29-year-old G3P0020 at 39 weeks gestation presented in labour. The patient had a known bicornuate uterus with the pregnancy located in the right horn, and had a McDonald cerclage placed for a shortened cervix. The patient had three prior dilation and curettage (D&C) procedures. One was for a vaginal delivery of a 19-week spontaneous abortion complicated by retained products of conception (POC). Another was performed for an 8-week spontaneous abortion, followed by a third procedure for retained POC.

The patient underwent a vacuum-assisted vaginal delivery of a viable infant. The placenta did not deliver and an attempt at manual extraction was made, but no plane could be developed between the placenta and uterus. Bedside ultrasound revealed a question of placenta accreta. The patient was stable with no active vaginal bleeding and desired future fertility. Therefore, the decision was made to leave the placenta in situ and follow with expectant management.

A magnetic resonance imaging of the pelvis showed findings consistent with placenta increta at the lateral aspect of the right uterine horn (Figure 1 and 2). On the second post-partum day, the patient experienced abdominal cramping, vaginal bleeding, and an eight percent drop in her haematocrit. She was taken to the operating room for a planned exploratory laparotomy and hysterectomy.

Intra-operative inspection and consultation with an infertility specialist revealed the possibility of proceeding with a hemi-hysterectomy of the right uterine horn in an attempt

Figure 1: Magnetic resonance imaging of the pelvis showing sagittal view of two uterine horns and retained placenta located in the right uterine horn.

Figure 2: Magnetic resonance imaging of the pelvis showing transverse view of the placenta at the lateral aspect of the right uterine horn, suspicious for increta.
for fertility preservation. The left horn and bilateral adnexa appeared normal. After a vasopressin injection between the two horns, the right uterine horn was extirpated without complication. The left horn was repaired in layers. Final pathology was consistent with placenta accreta. Post-operatively, she has resumed normal monthly menses.

**Discussion**

In a review of the distribution of Mullerian anomalies, the mean incidence of bicornuate uterus is 46%\(^3\). This anomaly is associated with both fertility and obstetric complications. Grimbizis et al. identified an overall spontaneous abortion rate of 36%, a preterm birth rate of 23%, a term delivery rate of 40.6% and a live birth rate of 55.2%\(^4\).

Bicornuate uteri are also associated with a high incidence of cervical incompetence, approaching 38%\(^5\). In our patient, placement of an abdominal cerclage at the time of hemi-hysterectomy was discussed. However, we were unable to clearly demarcate the lower uterine segment from cervix.

Prenatal diagnosis of a placenta accreta can be made by ultrasound; however there was no reported concern for placenta accreta in our patient. Risk factors associated with placenta accreta include prior uterine surgery, placenta previa, advanced maternal age, smoking, multiparity, short cesarean-to-conception interval, uterine irradiation and in-vitro-fertilization\(^6\).

**Conclusion**

Our patient’s three D&C procedures and her uterine anomaly likely contributed to her placenta accreta and need for this unique fertility preserving surgery.

**Consent**

Written informed consent was obtained from the patient for publication of this case report and accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

**References**