

Hemi-hysterectomy: A novel approach for placenta accrete syndrome

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Abstract

This is a case of a 23-year-old G1P0L0 who presented with term pregnancy with transverse lie with placenta previa and cervical fibroid. Bicornuate uterus with placenta accrete was found incidentally during cesarean section and hemi hysterectomy was done with extirpation of right pregnant horn along with placenta in situ. Identifying bicornuate uterus can be challenging especially at term by ultrasonography. Her uterine anomaly likely contributed to her placenta accrete syndrome and transverse lie and need for this unique fertility preserving surgery.

Keywords: Hemi-hysterectomy, Syndrome, G1P0L0, pregnancy

Introduction

The reported population prevalence of Congenital Mullerian anomalies ranges from 0.4 to 5 % ^[1]. Bicornuate uterus is a relatively common Mullerian anomaly which forms due to lack of fundal fusion and results in two hemi uteri, with only one cervix and vagina ^[1]. We present a case of bicornuate uterus with pregnancy with an unusual clinical scenario.

Case Report

A 23-yr. old primigravida presented at 40 weeks 1-day gestation with absent foetal movements for one day. Her menstrual and personal history were unremarkable. Her general physical examination was normal. On local examination term live foetus in transverse presentation could be palpated. Also, a 7 by 8 cm firm mass could be palpated on the left side below the foetus. The mass appeared to be attached to the uterus on per abdomen examination. Ultrasonography showed placenta previa with foetus in transverse lie with severe oligoamnios. A left cervical fibroid 7 by 8 cm was also visualized. In lieu of these findings an elective Caesarean section was planned. Per operatively uterus was bicornuate with pregnancy in the right horn. Left horn and adnexa were normal. Probably this left horn was mistaken as a cervical fibroid on ultrasound. On the surface of the pregnant horn extensive tortuous and prominent vessels were visible. A high transverse incision above the tortuous vessels was given and an alive female baby weighing 2.8 kg was delivered by breech extraction. The pregnant horn was thinned out like a parchment membrane with adherent multilobulated placenta. (Figure 1). A provisional intra operative diagnosis of placenta accrete syndrome was made. So, after counselling and informed consent; decision of hemi hysterectomy was taken. Hemi hysterectomy of right uterine horn was done for fertility preservation. Due to association of renal anomalies with Mullerian anomalies and absence of any relevant preoperative investigation, bilateral ureters were visualized and traced. Right horn was extirpated uneventfully and left horn was repaired in two layers. (Figure 2) Postoperative period was uneventful and patient was discharged on day 5. Patient has resumed normal monthly menses at her last follow up six months after the surgery.

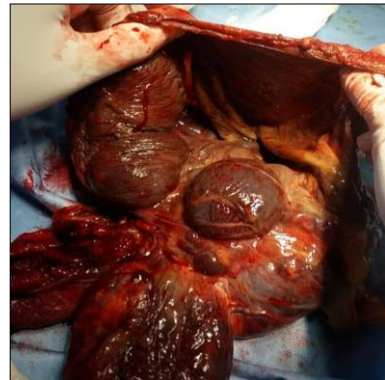


Fig 1: Multilobulated placenta adherent to thin uterine wall

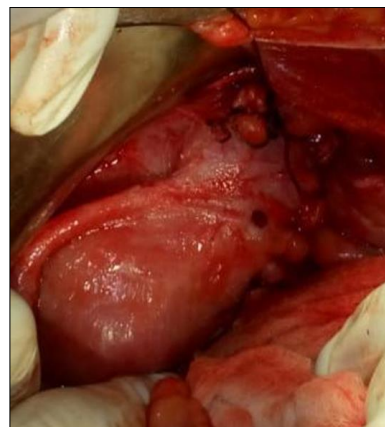


Fig 2: The left horn after repair

Discussion

Normal development of the female reproductive tract involves a series of complex interactions that direct differentiation of the Mullerian ducts and urogenital sinus (UGS). Interruption or dysregulation in any of the dynamic processes of differentiation, migration, fusion and canalization results in a wide spectrum of Mullerian duct anomalies.

Bicornuate uterus forms as lack of fundal fusion and results in two hemi uteri, with only one cervix and vagina. Bicornuate uterus is typically classified based on whether or

not the division extends to the external cervical os. Bicornuate uteri with a division above the os are called *bicornuate unicollis* and those with a divided os are called *bicornuate bicollis*

Radiologic discrimination of bicornuate uterus from the septate uterus can be challenging, however, it is important because septate uterus is easily treated with hysteroscopic septal resection. Widely diverging horns seen on HSG may suggest a bicornuate uterus. An intercornual angle >105 degrees suggest bicornuate uterus, whereas one <75 degrees indicates a septate uterus. However, MR imaging is necessary to define fundal contour. With this, an intra-fundal downward cleft measuring ≥ 1 cm is indicative of bicornuate uterus, whereas a cleft depth <1 cm indicates a septate uterus ^[1]. In some cases, the nonpregnant horn can rupture during labour, necessitating emergency surgery.

However, it needs to be reiterated that bicornuate uterus may present with menstrual abnormalities or miscarriages or may be asymptomatic only to be diagnosed retrospectively as in the present case. It may rarely be misdiagnosed for ectopic pregnancy as the pregnant horn may sonographically resemble an ectopic with the attendant nonpregnant uterus. Judicious approach at laparotomy and laparoscopy is required during surgical intervention for suspected ectopic pregnancies.

The incidence of hemi-hysterectomy during pregnancy is extremely rare. Few case reports identify this condition ^[2, 3, 4]. Extensive review identified only two cases of hemi hysterectomy done for placenta accrete syndromes ^[3, 4]. In the case reported by Ashton *et al.* ^[4] the patient underwent a vacuum assisted vaginal delivery of a viable infant. Due to failure of manual extraction and desire for fertility preservation, the placenta was left in situ. On the second postpartum day patient was taken up for hemi hysterectomy after an episode of severe bleeding. Few decades back another hemi hysterectomy was performed for a uterine rupture at an early gestation in a unicervical bicornuate uterus ^[2]. This procedure should always be considered in the context of bicornuate uterus. This is particularly important in the current scenario when the incidence of placenta accrete syndrome is significantly increasing. Hemi hysterectomy serves the purpose of fertility preservation without compromising the management.

The present case and existing literature also highlight the importance of antenatal sonography and other radiological investigations (like Magnetic Resonance Imaging) if required to exclude placenta accrete syndromes in known cases of Mullerian Anomalies.

Conclusion

Patient's Mullerian anomaly and placenta previa likely contributed to her placenta accrete syndrome and need for this unique fertility preserving surgery. So, this conservative option must be considered in managing placenta accrete syndrome in women requiring fertility preservation. Further a high index of suspicion should be kept for Mullerian anomalies in cases of malpresentation with Placenta previa despite a normal past obstetric history.

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