

Spontaneous Rupture of Gravid Horn of Bicornuate Uterus at Mid Trimester - A Case Report

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ABSTRACT

Rupture of gravid uterus in a primigravida is rare and is generally associated with Mullerian duct anomalies. A case of rupture of gravid left horn of bicornuate uterus at 20 weeks gestation is reported in a 25-year old unmarried primigravida. The ruptured left horn was excised and defect closed. The need for high index of suspicion, early diagnosis and prompt intervention is highlighted.

KEYWORDS: bicornuate uterus, uterine rupture, laparotomy

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INTRODUCTION

Mullerian duct anomalies occur in 0.1% to 3% of women and are often associated with reproductive problems such as miscarriage, premature labour, uterine rupture and malpresentation¹.

Bicornuate uterus is one of such rare mullerian duct anomalies that often presents with rupture in early pregnancies. The incidence of pregnancy in rudimentary horn of bicornuate uterus is 1 in 40,000 pregnancies^{2, 3} and rupture rate is over 50% with 87% occurring after first trimester⁴. Massive haemoperitoneum often follows such rupture and could be catastrophic if prompt intervention is not made.

Ultrasound is a useful tool for early diagnosis of bicornuate uterus before or after uterine rupture¹ and consequently offers opportunity for timely intervention. We report a case of ruptured bicornuate uterus at 20 weeks in a 25 year old Nigerian lady. Although, ultrasound could not diagnose the ruptured uterine horn in this case, early surgical intervention was prompted by high index of suspicion.

CASE HISTORY

A 25-year-old single primigravida presented with moderate lower abdominal pain of two days duration following 20 weeks amenorrhoea. There were associated dizziness and occasional fainting attacks. She noticed occasional blood stains in her underpants. She had attempted termination of pregnancy (TOP) on two occasions at 8 and 12 weeks in a private hospital in the course of the amenorrhoea but pregnancy symptoms persisted.

Examination indicated that she was moderately pale with packed cell volume of 22%. The blood pressure was 60/40 mmHg, pulse was 110 beats/min and of low volume. The abdomen was full and tender especially at the lower abdomen. The uterus was of 20 weeks size. Bowel sounds were present but hypoactive. Vagina was smeared with blood and cervix was tubular with closed os.

Abdominal ultrasound suggested an active intrauterine foetus in an unstable lie with satisfactory movement and cardiac activity. The placenta was anterior and attached to the upper part of uterine segment. The estimated gestational age was 20 weeks and two days. The upper abdominal organs were normal and no focal lesion noted within. Bowels were normal. There was gross free fluid collection with particulate deposits in the abdomen and pelvis including the paracolic gutters and the subhepatic spaces with the viscera floating in them.

Haemoperitoneum secondary to complication of the attempted termination of pregnancy was entertained and decision to carry out a laparotomy was taken.

Intra operative findings include massive haemoperitoneum of about 2.5 L, bicornuate uterus with ruptured left horn and extrusion of the foetus into the peritoneal cavity (see pix). The ruptured left horn was attached to the left border of the right horn by a fibromuscular tissue stalk about 3cm in diameter. The left fallopian tube and round ligament were attached to



Pix

The picture shows the displayed bicornuate uterus with the extruded foetus still connected to the ruptured horn by the umbilical cord and placenta.

the ruptured horn while the right fallopian tube and the right round ligament were attached to the intact right horn. Both ovaries were normal.

The ruptured left horn was excised at the junction with the right horn and the defect sutured in two layers. Patient was transfused with four units of blood. Her postoperative recovery was uneventful and she was discharged on the seventh day. She defaulted in her 6 weeks clinic appointment.

DISCUSSION

Uterine rupture in a normal uterus usually occurs in late pregnancy or in labour in women with risk factors. This is not so for a bicornuate uterus where rupture early in pregnancy as in the case presented is a common finding. Similar cases have been reported in literature^{1, 2, 5}. The rupture is as a result of the inability of the uterine horn to accommodate an enlarging pregnancy. Reportedly, such rudimentary horn rupture had been delayed for up to 34 weeks gestation⁶.

Haemorrhage is usually massive following rupture and as such early diagnosis and intervention is required. Although diagnosis of bicornuate uterus with rudimentary horn can be made before rupture using ultrasound and/or magnetic resonance imaging (MRI)⁶, the diagnosis may occasionally pose some challenges as in the case presented. When the diagnosis is made before rupture, excision of the rudimentary horn should be done to avert the morbidity and mortality associated with rupture⁷.

Excision of the ruptured horn of the uterus left a defect which was closed in two layers to strengthen the area. We therefore recommend elective caesarean section in subsequent pregnancies as this area of excision poses risk of rupture in future pregnancies. Serial ultrasound should be commenced at 20 weeks gestation to detect

abnormal thinning of the uterine wall which may suggest risk of early rupture.

CONCLUSION

In conclusion, pregnancy in the rudimentary horn is very rare, but is associated with increased maternal morbidity and mortality. Routine ultrasound and high index of suspicion will result in early diagnosis and prompt intervention.

REFERENCES

1. Kore S, Pandole A, Akolekar R, Vordya N, Ambiye VR. 'Rupture of Left Horn of Bicornuate Uterus at 20 Weeks of Gestation'. *Journal of Postgrad Med.* 2000; 46: 39-40.
2. Mane S, Chaudhy R, Nandanwar Y. 'An Unusual Presentation of Pregnancy in Bicornuate Uterus'. *Journal of Obstetrics and Gynaecology, India* 1994; 44: 154-155
3. Sfar E, Zine S, Bourghida S, Beltaieb A, Chell H. 'Pregnancy in a Rudimentary Uterine Horn, Main Clinical Focus'. *Gynecol Obstet*, 1994, 89: 21-26
4. Nahum GC. 'Rudimentary uterine Horn Pregnancy, The 20 Century Worldwide Experience of 588 Cases'. *Journal of Reproductive Medicine* 2002; 47: 151-163
5. Okonta PI, Abedi H, Ajujah C, and Omo-Aghoja L. Pregnancy in a non communicating rudimentary horn of a unicornuate uterus. A case report. *Cases Journal* 2009, 3:6624.
6. Elsayegh A, Nwosu, EC. 'Rupture of Pregnancy in the Communicating Rudimentary Uterine Horn at 34 Weeks'. *Human Reproductive* 1998; 13: 3566 - 3568
7. Achiron R, Tadmor O, Kamar R, Abouloria Y, Diamant Y. 'Prerupture Ultrasound Diagnosis of Interstitial and Rudimentary Uterine Horn in Pregnancy and Second Trimester. A Report of Two Cases'. *Journal of Reproductive Med* 1992; 37: 89-92