



Case Report

Rupture Bicornuate Uterus at Term Following Spontaneous Onset of Labour

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ABSTRACT

We report a case of a third Gravida with two living issues with undiagnosed Bicornuate Uterus with uterine rupture, referred to our Institution from a private clinic in shock. The patient was resuscitated with intravenous crystalloids and blood transfusion and was taken for emergency laparotomy. On opening the abdomen, uterus was bicornuate with rupture of the gravid left horn on its medial side near the junction of the two horns. Dead foetus presenting as breech was found in the left horn. After delivering the foetus and placenta the rent was sutured in two layers. Subtotal Hysterectomy was performed later as the uterus was atonic and failed to respond to massage, uterotonics and compression sutures. This case stresses the importance of early ultrasound in diagnosing uterine anomalies.

Key words: Bicornuate uterus, Rupture uterus, Subtotal Hysterectomy, Multipara

INTRODUCTION

The occurrence of all types of Mullerian duct abnormalities is estimated to be around 0.4 %. [1] A bicornuate uterus is estimated to occur in 0.1%- 0.5% of women. Of all the Mullerian duct anomalies, the incidence of bicornuate uterus is 25%. [2] Bicornuate uterus is caused by incomplete fusion of bilateral Mullerian system during embryogenesis. Helpful techniques to investigate uterine anomalies include transvaginal ultrasound, sonohysterography, hysterosalpingography, magnetic resonance imaging (MRI) and hysteroscopy. Recently 3D-ultrasonography has been advocated as an excellent method to evaluate these malformations. [3] In developing countries, routine ultrasonography may not be

conducted in all pregnant women due to financial constraints. Most of the uterine anomalies are first recognized during pregnancy. This is a rare case report of rupture uterus following spontaneous onset of labour in an undiagnosed bicornuate uterus of a para two woman. This case underlines the importance of antenatal diagnosis of congenital malformations and the need to keep these conditions in mind especially in those patients with history of prolonged labour not responding to induction.

CASE REPORT

A Gravida three Para two woman reported in the outpatient clinic of Regional Institute of Medical Sciences, Imphal,

referred from a private clinic with severe pain abdomen following spontaneous onset of labour. On examination at the time of arrival, there was severe pallor, with systolic blood pressure of 80 mmHg and a feeble pulse rate of 134 beats per minute. The patient's abdomen was tense and painful. Prominent fetal parts were felt, no fetal heart sound could be localized and the uterus was felt to tonically contract above the fetal parts. Pelvic examination revealed an oedematous cervix which was pulled up and the presenting part could not be properly appreciated. A diagnosis of Uterine rupture was made and the patient was posted for emergency Laparotomy. On opening up the abdomen, 1.5 litres of haemoperitoneum was noted. The fetus was partially expelled into the abdominal cavity and was extracted as breech. Placenta and membranes removed and the uterus was exteriorised. Bicornuate uterus was diagnosed as two well-formed horns were present. A rent was noticed in the medial side of the gravid left horn and the right horn was intact. Uterus was atonic and it was not responding to massage, uterotonics and compression sutures. Decision for Hysterectomy was immediately taken, and subtotal hysterectomy with left salpingo-oophorectomy was carried out. After ensuring complete haemostasis, abdomen was closed in layers and an abdominal drain was kept. Three units of packed red cells and three of units fresh frozen plasma was transfused. Per vaginal examination was done in the post operative period under speculum and no abnormality in the vaginal cavity and cervix was found. There is no septum in the vagina and only a single cervix. The patient recovered well in the post operative period and was discharge on the seventh post operative day.

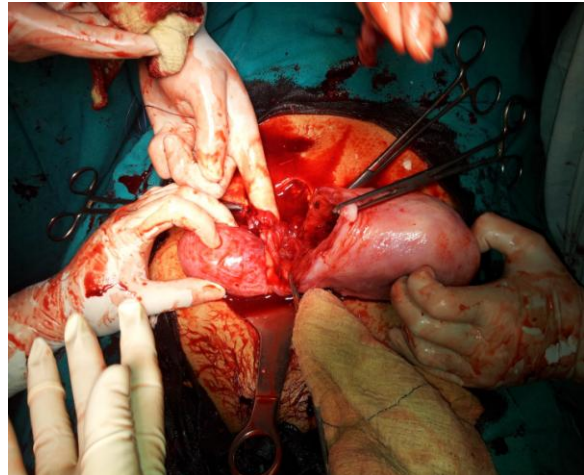


Figure 1: Intraoperative Picture of Rupture Bicornuate Uterus With Gravid Left Horn (white arrow) and intact Right Horn. A rent (approx. 10 Cms) is seen in the midline.

DISCUSSION

Bicornuate uterus (*bicornis unicollis*) represents a double uterus with a single cervix and vagina resulting from the failure of the embryo genetic fusion of part of the Mullerian ducts. Each uterus has a single horn linked to the ipsilateral fallopian tube that faces its ovary. Rupture of gravid uterus in a primigravida is rare and is generally associated with uterine anomalies. [1-3] Pregnant uterine anomalies may be difficult to diagnose only by two-dimensional (2-D) ultrasonography. [4] In resource poor countries, employing sophisticated diagnostic modalities may not be feasible. [5]

In the present case, the cause of intrauterine foetal death was rupture of the left horn of the uterus that lead to foetal hypoxia and death. The case was referred late to our institution and was admitted in shock for which resuscitation with intravenous fluids and blood components was immediately instituted.

A similar case was reported from Bangalore, India where a primi gravida with 30 weeks gestation with eclampsia was induced with misoprostol and had developed rupture of the uterus. [6] Rupture in such cases occurs because of inability of

malformed uterus to expand as a normal uterus. [7] Uterine rupture may occur due to the weak or deficient musculature of the anomalous uterus. The site of rupture in the present case is the medial side of the left horn extending to the junction between the two horns of the uterus, which is also very rare. The incidence of rupture of an unscarred uterus is between 1 in 8000 and 1 in 15000. [8]

In some cases, transvaginal ultrasound and computed tomography failed to diagnose the condition and it was diagnosed only at emergency laparotomy for haemoperitonium. [9] As these cases also have associated urinary tract abnormalities, there is a need for complete post partum evaluation of the genito-urinary tract.

CONCLUSION

Uterine abnormalities though rare, are associated with adverse reproductive outcomes, the most severe of them being rupture of the gravid uterus. Whenever there is no response to induction of labor, these conditions have to be thought of. A high degree of suspicion is necessary in cases of malpresentation, prolonged labour, clinically indeterminate uterine contour at term both in nullipara and multipara. There is a need for capacity building in diagnosing these anomalies.

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