International Journal of Reproduction, Contraception, Obstetrics and Gynecology
Borthakur P et al. Int J Reprod Contracept Obstet Gynecol. 2023 Feb;12(2):482-483
www.ijrcog.org
pISSN 2320-1770 | eISSN 2320-1789

DOI: https://dx.doi.org/10.18203/2320-1770.ijrcog20230140

Case Report

A rare case of ruptured gravid horn of a bicornuate uterus

Pratyusha Borthakur, Munikrishna Munisamaih*

Department of Obstetrics and Gynaecology, SDUAHER, Kolar, Karnataka, India

Received: 11 November 2022
Revised: 08 January 2023
Accepted: 09 January 2023

***Correspondence:**
Dr. Munikrishna Munisamaih,
E-mail: munikrisha_m@rediffinail.com

ABSTRACT

The incidence of the uterine malformations is estimated to be 3% to 5% in the general population. Bicornuate uterus (BU) is a rare uterine anomaly result from incomplete fusion of the two Müllerian ducts during embryogenesis. Bicornuate uterus very rarely can lead to rupture of the uterus during the early pregnancy with high mortality and morbidity rates. In this case, rupture was diagnosed at an earlier gestational age, where the patient was also stable. There was a favourable outcome with timely intervention.

Keywords: Uterine anomaly, Uterine rupture, Obstetrical emergency

INTRODUCTION

Uterine malformation occurs in an estimated 3% to 5% of the general population. The paramesonephric ducts or the Mullerian ducts grow caudally and medially to fuse in the midline. The lower ends fuse to form the uterus, while the separated upper parts with open ends become the fallopian tubes with abdominal ostia.[1] The inferior fused portion becomes the uterovaginal canal, which later becomes the epithelium and glands of the uterus and upper vagina. In forming the uterus, the Mullerian ducts fuse from below upwards, and the medial walls breakdown to form the cavity. Failure of the fusion of the Mullerian ducts leads to the formation of bicornuate uterus. In this, only the lower parts of the ducts fuse leaving the cornua separate. The cervix and vagina maybe single or double. BU can be identified during or before pregnancy. Pregnancy in bicornuate uterus is associated with adverse pregnancy outcomes and can rarely be associated with rupture of the uterus.[2,3]

CASE REPORT

A 23-year-old primigravida, in the first trimester (13 weeks) presented to the emergency department complaining of pain abdomen since two days, dull aching in nature, radiating to back and thigh. Patient also had two episodes of vomiting the day before admission. Patient had an early scan dating 9 weeks which showed bicornuate uterus with pregnancy in its left horn. Patient had regular cycles before pregnancy. She had a married life of 3 years and had conceived spontaneously. On general physical examination she looked pale with tachycardia of 123 bpm, other systemic examination was unremarkable. Per abdomen, uterus was just palpable with diffuse tenderness all over the abdomen and on local examination, the cervix appeared short with fullness of all the fornices. Regular investigations were done and the hemoglobin was reported to be 5.7 gm/dl. Ultrasound examination revealed bicornuate uterus, with single intra uterine fetus noted in one of the cornua with gestational age corresponding to 14 weeks 3 days with absent cardiac activity. Placenta posterior and low lying reaching the internal os. Ill-defined sac like structure measuring 1×0.8 cm was noted in the right ovary which was given was ruptured ectopic pregnancy. Moderate hemoperitoneum was reported in the scan which was confirmed by diagnostic tap. Patient was taken up for exploratory laparotomy in view of ruptured ectopic pregnancy. Intraoperatively, BU was present with rupture of the left horn of the uterus. Fetus present *en sac*

in the peritoneal cavity. Right sided horn appeared normal. Hemoperitoneum was drained and the ruptured left fundus of the uterus was sutured with vicryl 2-0 in two layers. Patient was transfused with two units of packed cells intraoperatively and one unit post operatively. Vitals were monitored regularly and was discharged on post operative day 8.

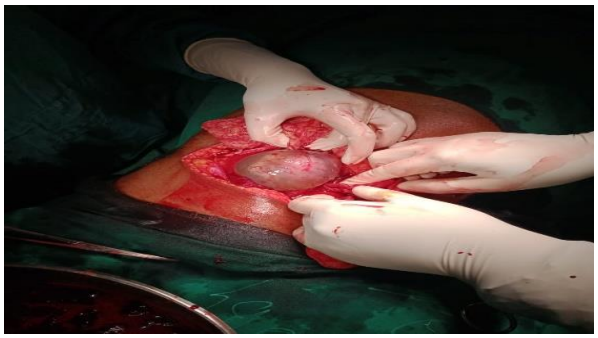

Figure 1: Gestational sac in the abdominal cavity after rupture of the gravid horn of the bicornuate uterus.

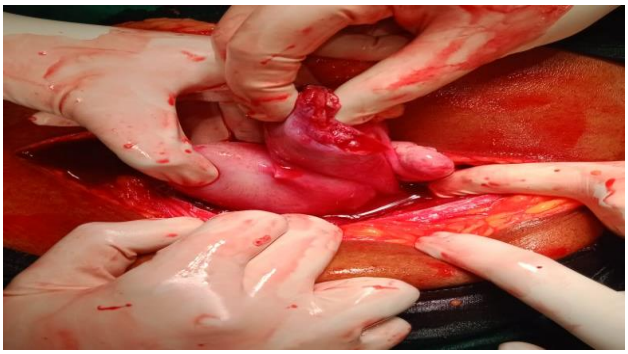

Figure 2: Repaired fundus of the left horn of uterus after removing the products conception; repair was done in two layers.

DISCUSSION

BU is a developmental abnormality of the uterus, which arises from incomplete fusion of the proximal part of the Mullerian tubes. This results in formation of two uterine cavity with one fallopian tube each. The cervix and the vagina in such cases maybe single or double. Pregnancy in BU has a very poor reproductive outcome and hence needs to be closely monitored and followed up.[4] In asymptomatic women, BU maybe be discovered accidently during USG imaging or during delivery. In our case, patient was diagnosed to have a bicornuate uterus in 9th week antenatal scan. Patient was asymptomatic till she developed pain abdomen and vomiting. USG imaging showed intrauterine gestation without cardiac activity of the fetus with an ill-defined sac, likely ectopic pregnancy. Immediately blood and fluid replacement were done and the patient was taken up for exploratory laparotomy.

Cornual pregnancy is used to denote pregnancy in the upper lateral part of the uterus. Whereas, interstitial pregnancy is when pregnancy occurs in the proximal intramural part of the fallopian tube.[5] Diagnosis of uterine anomaly, like BU in the first trimester is very essential. MRI imaging is also a non-invasive diagnostic method.[6] Repeated follow up during and after the pregnancy is required despite the outcome of the pregnancy. Imaging is also useful to monitor the condition of the scar following uterine closure.

CONCLUSION

This case report shows that rupture of uterus can occur at an early gestational age which can lead to adverse maternal outcome. Identification of early signs of rupture is essential. USG imaging is an essential method for identifying uterine anomaly during early pregnancy.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Malhotra N. Jeffcoate's Principles of Gynaecology. Malformation and maldevelopment of genital tract. 7th ed. New Delhi: Jaypee Brothers Medical Publication; 2018: 189-92.
2. Chan YY, Jayaprakasan K, Tan A, Thornton JG, Coomarasamy A, Raine-Fenning NJ. Reproductive outcomes in women with congenital uterine anomalies: a systematic review. Ultrasound Obstet Gynecol. 2011;38(4):371-82.
3. Reichman DE, Laufer MR. Congenital uterine anomalies affecting reproduction. Best Pract Res Clin Obstet Gynaecol. 2010;24(2):193-208.
4. Singh N, Singh U, Verma ML. Ruptured bicornuate uterus mimicking ectopic pregnancy: a case report. J Obstet Gynaecol Res. 2013;39(1):364-6.
5. Hassan CH, Karim AK, Ismail NA, Omar MH. Case report of ruptured non-communicating right rudimentary horn pregnancy: an acute emergency. Acta Medica (Hradec Kralove). 2011;54(3):125-6.
6. Tsafrir A, Rojansky N, Sela HY, Gomori JM, Nadjari M. Rudimentary horn pregnancy: first-trimester prerupture sonographic diagnosis and confirmation by magnetic resonance imaging. J Ultrasound Med. 2005;24(2):219-23.

Cite this article as: Borthakur P, Munisamaih M. A rare case of ruptured gravid horn of a bicornuate uterus. Int J Reprod Contracept Obstet Gynecol 2023;12:482-3.