

CASE ARTICLE

Ruptured Tubal Pregnancy in a Case of Bicornuate Uterus-an Atypical Case Report

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ABSTRACT

Ectopic pregnancies may occur as high as 1 in 300 to 1 in 150 deliveries and result in high mortality and morbidity. 1% of general population have uterine abnormalities, most of them resulting from abnormal fusion of mesonephric or mullerian duct like unicornuate, bicornuate and septate uterus. In this case a woman married for last 11 years with history of 03 spontaneous abortions and 01 living issue was referred from a rural hospital with acute abdomen, nausea and reeling of head but succumbed on the way and was sent for autopsy. On dissection, ruptured tubal pregnancy with bicornuate uterus was discovered. Any woman having acute abdomen in reproductive age group must be investigated for ectopic pregnancy to reduce morbidity and mortality. Ultrasonography must be done for each pregnant lady as early as possible to rule out ectopic pregnancy and congenital anomalies which may possess threat to the mother and the baby.

Keywords: *Ectopic pregnancy, uterine anomalies, mesonephric duct, bicornuate uterus*

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INTRODUCTION

During organogenesis in embryonic life, abnormal fusion of the mullerian duct results in various malformations of the uterus.¹The most common mullerian anomalies are septate uterus, unicornuate uterus, bicornuate uterus and uterus didelphys.² Incidence of having 0.16 to 10 % of uterine malformations have been reported, overall 1% in general population and 3% in women having poor pregnancy outcomes.^{3,4} Some of these anomalies are asymptomatic and incidental findings on ultrasonography and hysterosalpingography done for investigation of infertility.⁵Bicornuate uterus is one of the congenital anomalies arising from abnormal fusion of the mullerian duct resulting in problems of fertility and birth.⁶ Abortions, decreased foetal growth, malpresentations during birth and ectopic pregnancies are common findings with bicornuate uterus.

CASE REPORT

A 30 year old lady, from a rural village, married for 11 years having 01 living issue, with alleged history of acute abdomen, nausea, reeling of head for 1 day and amenorrhoea for last 02 months was referred from a primary health centre to AGMC and GB Pant Hospital. There was no history of vaginal bleeding. She had three spontaneous abortions previously during her first trimesters and delivered a girl child 4 and 1/2 years back by lower segment caesarian section at a sub-divisional hospital. On arrival, she was declared dead by the attending emergency medical officer and was sent to the mortuary wing for post mortem examination.

On external examination her built was average. She was pale. Rigor mortis was present all over the body in a well developed stage and post mortem staining was present at the back of the trunk, thighs and legs and fixed, except the areas of contact flattening. Montgomery tubercles were present on both breasts. Lower abdomen was slightly distended. Thick curdy white discharge was present in and around the vulva. On dissection of the abdominal cavity, 03 litres of liquid and clotted blood was present in the peritoneal cavity. Uterus measured 14cmsx10cmsx4cms and had two cornus. Ampulla of the right fallopian tube was ruptured and the rupture site was 5cms from the origin of the tube (**Figure 1**) which bore a foetus of length 4 cms. On dissection of the uterus, two cornus were distinctly visualised (**Figure 2**). No other abnormality was present in the adnexal structures. All other organs were pale.

The cause of death in this case was shock and haemorrhage resulting from ruptured tubal pregnancy in a case of bicornuate uterus.



Figure 1 Ruptured Tubal pregnancy at the ampullary site of right ovary



Figure 2 Bicornuate uterus and ruptured tubal pregnancy

DISCUSSION

An ectopic pregnancy is one in which the fertilized ovum is implanted and develops outside the normal uterine cavity. It was first discovered by Busiere in 1663 in France and thereafter Gifford made a complete report in 1731.⁷ The incidence varies from 1 in 300 to 1 in 150 deliveries.⁸ Most commonest site is the ampulla of the fallopian tube constituting nearly 55% of all ectopic pregnancies.⁸ Rupture of the tubes are predominantly common in isthmus implantation and occurs at 6-8 weeks, followed by ampullary pregnancies at 8-12 weeks. It is seen that, if the implantation occurs in the antemesenteric border in the ampulla, the pregnancy might continue a little longer. The classical triad of symptoms-amenorrhoea, abdominal pain and vaginal bleeding occurs in 30-40% of cases. The pain is acute, agonising and colicky and occurs due to distention of tube by blood and due to colic of the tubal muscles. Syncopal attack occurring in 10% women carrying ectopic pregnancies is due to reflex vasomotor disturbances caused by irritation of the peritoneum by blood. Abnormal fusion of the mesonephric duct or the mullerian duct leads to uterine anomalies like septate uterus, unicornuate uterus and bicornuate uterus.⁸ According to The American Fertility society mullerian duct anomalies are classified into four classes.⁹ Bicornuate uterus falls into class IV of the classification. Further it has been classified into three subtypes which are complete, partial and arcuate types. Women having bicornuate uterus have 62.5% chance of having live birth and 25% chance of preterm delivery and abortion.¹⁰ In this case the deceased lady had bad obstetric history with 03 abortions and 01 caesarean section. As the lady had bicornuate uterus hence the space for the gestational sac and foetus was less to grow inside, which prevented the migration of the fertilised ovum into the uterine cavity in this pregnancy, leading to ectopic pregnancy and finally rupture. She was unaware of her present pregnancy and was referred as a case of acute abdomen from a rural hospital without urine pregnancy test. Suspicion about ectopic pregnancy in women of reproductive age group having acute abdomen can save many lives.

CONCLUSION

Ectopic pregnancy possesses a great threat to the well being of pregnant women. Rupture following ectopic pregnancy contributes significantly to maternal mortality and morbidity. Uterine anomalies like bicornuate uterus

can further accentuate incidence of ectopic pregnancy. Early detection can be useful in saving lives and reduction of morbidity and complications following ruptured ectopic and its surgical intervention. Ultrasound is definitely the tool of choice in detection at the earliest and should be made available at primary care unit. Clinical suspicion about ectopic pregnancy should be there in cases of women in reproductive age group having acute abdomen. ASHA and Anganwadi workers should be made aware of it so that they can further generate awareness amongst the common mass.

Contribution of authors: We declare that this work was done by authors named in this article and all liabilities pertaining to claims relating to the content of this article will be borne by the authors.

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REFERENCES

1. Lin PC. Reproductive outcomes in women with uterine anomalies. *J Women's Health (Larchmt)* 2004;13(1):33–9.
2. Nwosu B, Ugboaja JO, Obi Nwosu A. Spontaneous rupture of the gravid horn of bicornuate uterus at term. *Nig Med J*. 2010;5(4):184–185.
3. Raga F, Bauset C, Remohi J, Bonilla-Musoles F, Simon C, Pellicer A. Reproductive impact of congenital Mullerian anomalies. *Hum Reprod* 1997;12(10):2277–2281.
4. Byrne J, Nussbaum-Blask, Taylor WS, et al. Prevalence of Mullerian duct anomalies detected at ultrasound. *Am J Med Genet* 2000;94(1):9–12.
5. Green LK, Harris RE. Uterine anomalies. Frequency of diagnosis and associated obstetric complications. *Obstet Gynecol* 1976 Apr;47(4):427–9.
6. Harger JH, Archer D, Marchese SG, Muracca-Clemens M, Garver KL. Etiology of recurrent pregnancy losses and outcome of subsequent pregnancies. *Obstet Gynecol* 1983;62:574–81.
7. Rock JA, Thompson JD. Ectopic Pregnancy. *TeLinde's Operative gynecology*. 8th ed. Philadelphia: Lippincott-Raven; 1997. p. 501–27.
8. Dutta DC. Ectopic pregnancy. *Textbook of Obstetrics*. 6th ed. Kolkata: Central book Agency; 2004. p. 179–85.
9. Rock JA, Thompson JD. Surgery for anomalies of mullerian duct. *Te Linde's Operative gynecology*. 9th ed. Philadelphia: Lippincott William and Wilkins; 1997. p. 687–729.
10. Braun P, Grau FV, Pons RM, Enquix DP. Is HSG able to diagnose all uterine malformations correctly? A retrospective study. *Eur J Radiol* 2005s;53:274–279.

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Prof. Pabitra Kumar Gogoi DCP MD DIPHEA RPMS (London University), a national advisor of IJHRMLP and Immediate Past President of the Indian Society of Haematology & Blood Transfusion leaving for Philippine Society of Paediatric Oncology, as an International Speaker to their Congress from November 5-6, 2015. Prof. Gogoi, who was the former Professor & Head, Department of Clinical Haematologist of Oxford University, Cambridge University & Royal Postgraduate Medical School, London University has been invited to speak on “The Role of L-asparaginase in Actue Lymphoblastic Leukaemia” in their Lunch Symposium.

