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Ruptured Bicornuate Uterus: A Rare Case in a Primigravida in First-Trimester

Annapurna Taware[1], Abhijiith GJ[2], Balaji D Baste[3*], Girish Tasgaonkar[4]

[1]Associate Professor, Department of Pathology, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra India
[2]Assistant Professor, Department of Forensic Medicine, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra India
[3]Assistant Professor, Department of Pathology, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra India
[4]Assistant Professor, Department of Forensic Medicine, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra India

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***Corresponding author:** Dr. Balaji D Baste

Abstract **Case Report**

Bicornuate uterus (BU) is a rare uterine anomaly result from incomplete fusion of the two Mullerian ducts during embryogenesis. CASE: 25 year Female Primi-gravida with 11 months gestation was on regular follow up in our hospital. Ultrasound scan was performed at the 7th week of pregnancy and showed a BU with single intrauterine gestational sac in the left horn. One day suddenly collapsed at home and she was declared brought dead in casualty. Autopsy was performed. Bicornuate uterus very rarely can lead to rupture of the uterus with high mortality and morbidity rates. Bicornuate uterus may be an independent risk factor for uterine rupture, which can occur in primigravida patients and at any gestation. Clinical signs of uterine rupture in early pregnancy are nonspecific and must be distinguished from acute abdominal emergencies.

Key words: Bicornuate, Uterus, rupture, pregnancy, Primi-gravida.

INTRODUCTION

The female reproductive organs develop from the fusion of the bilateral paramesonephric (Mullerian) ducts at intra uterine 6-7 week to form the uterus, cervix, and upper one-thirds of the vagina. Bicornuate uterus is a rare uterine anomaly result from incomplete fusion of the two Mullerian ducts during embryogenesis. This leads to varying degrees of separation between two symmetrical uterine cavities ranging from partial separation to complete separation with no communication between the two cavities. Kidney and other urinary tract abnormalities are often associated with Mullerian ducts anomalies [1] Rupture of the gravid uterus is a rare obstetric catastrophe with high mortality and morbidity. It is more common in multi gravida or in scarred uterus and usually occurs at labor[2]. Here we report a case of primigravida with first trimester rupture of bicornuate uterus.

CASE REPORT

25 female primigravida with 11 weeks of gestation was diagnosed to have bicornuate uterus with single gestation in left cornua of uterus. Patient was explained the risk of continuing pregnancy but she opted to continue. She was on regular follow up in our hospital. One day she collapsed at home and on the way to hospital she died and brought dead to our hospital and a combine autopsy was done. On opening abdominal cavity, blood and blood clots with a dead fetus was found in the peritoneal cavity (Fig1A & 1B).

Fig-1A: Abdominal wall with blood and blood clots

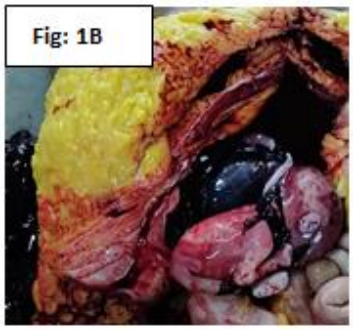

Fig-1B: Dead foetus in the peritoneal cavity

The abdomen was cleared of clots and uterus was inspected and noted to be bicornuate with communication between the two horns. The pregnancy had been in the left horn which had a rupture measuring 8cm in length at uterine isthmus. Bi Cornuate Uterus and dead fetus with umbilical cord intact, attached to placenta was seen and Placenta was hemorrhagic & seen coming out of Uterine cavity (Fig 2A & 2B).

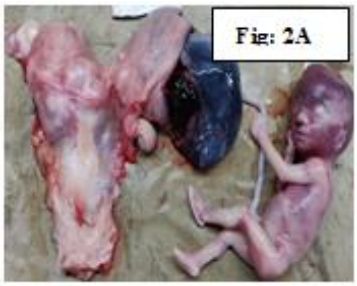

Fig-2A: Bi-Cornuate Uterus and dead fetus with umbilical cord intact, attached to placenta

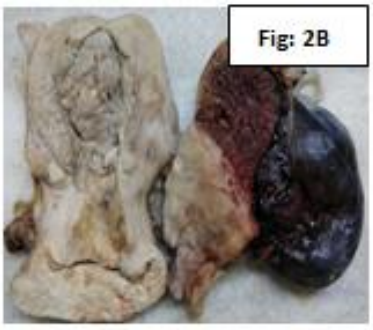

Fig-2B: Placenta was hemorrhagic & seen coming out of uterine cavity

DISCUSSION

Pregnancy in a BU has a poor reproductive potential and requires close monitoring [1]. In asymptomatic women, the presence of bicornuate uterus may not be detected until during pregnancy or delivery [3]. Uterus bicornis unicollis (bicornuate uterus), which is a common type seen represents a uterine malformation where the uterus is present as a paired organ resulting from the failure of the embryogenetic fusion of part of the mullerian ducts. Incidence of it has been 3estimated to occur in 1/3,000 women. More recently 3-D ultrasonography has been advocated as an excellent noninvasive method to evaluate these malformations. Uterine malformation is usually associated with urinary tract malformation. Sonography for urinary tract should be done [4].

Each uterus has a single horn linked to the ipsilateral fallopian tube that faces its ovary. The bicornuate uterus often has an unusually thick strong round ligaments and a thick vesico-rectal fold running between them. Implication of uterine malformation relates inversely to the degree of fusion defect and may be associated with renal tract anomalies. Incidence of pregnancy in rudimentary horn is 1/40 000 pregnancies. Rupture in such cases occurs because of inability of malformed uterus to expand as a normal uterus. The walls of the anomalous uteri tend to become abnormally thin as pregnancies advances. Thickness can be inconsistent over different aspects of the myometrium, and the placenta does not adhere properly. The rupture in rudimentary horn is likely to occur in late first trimester or even in second trimester. Rarely pregnancy can go on till late second trimester before rupturing. The haemorrhage occurring because of rupture is massive and can be life threatening, unless diagnosed and treated promptly [5].

CONCLUSION

We report this case to highlight the fact that death due to Spontaneous uterine rupture (non traumatic) in a primigravida at 1st and 2nd trimester is extremely rare. Uterine abnormalities, though rare can be encountered in pregnancy. Attempts should be made for early diagnosis to avoid maternal mortality. Obstetricians must consider this diagnosis when a pregnant patient presented with acute abdomen in early pregnancy.

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