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Case Report

Pregnancy in bicornuate uterus

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ABSTRACT

The incidence of the uterine malformations is estimated to be 3% to 5% in the general population. Abnormal fusion of the mesonephric duct (Mullerian duct) during embryonic life results in a variety of congenital uterine malformations like septate uterus, unicornuate uterus, and bicornuate uterus. Fertility and evolution of pregnancy depends on the type of uterine anomaly. Many of them are asymptomatic but it is important to consider this diagnosis in recurrent miscarriages, preterm labours, malpresentations, and intrauterine growth restrictions. We are presenting a 22-years-old pregnant woman with a history of abortion. The patient was not diagnosed with a bicornuate uterus in her first pregnancy. However, she was diagnosed with a bicornuate uterus based on the findings of ultrasound in the present pregnancy. A successful caesarean section was performed on the subject in the 39th week of gestation. According to the results, successful outcome could be achieved in patients with bicornuate uterus.

Keywords: Bicornuate uterus, Pregnancy, Uterine malformation

INTRODUCTION

Uterine malformations are estimated 3% to 5% in the general population.[1-2] These abnormalities occur as a result of Mullerian or paramesonephric duct anomalies or disturbances at the time of fusion or development[3]. One of these abnormalities is identified as bicornuate uterus, caused by abnormal fusion of the Mullerian ducts. This condition might be diagnosed before or during pregnancy. Many of these abnormalities might be asymptomatic and may remain undiagnosed. Bicornuate uterus is divided according to the involvement of the cervical canal - bicornuate bicollis: two cervical canals; central myometrium extends to external cervical OS and bicornuate unicollis: one cervical canal; central myometrium extends to internal cervical OS. Precise diagnosis requires diagnostic modalities like ultrasonography (USG), magnetic resonance imaging (MRI), hysterosalpingogram, hysteroscopy and laparoscopy. Pregnancies occurring in the malformed uterus are relatively common, and many of them are asymptomatic, but should be suspected in patients with recurrent miscarriages and malpresentations. However, women with bicornuate uteri can experience successful pregnancies and even uneventful vaginal deliveries. Therefore, a case of successful pregnancy outcome in a patient with bicornuate uterus is discussed in this report. Reproductive outcomes can be improved with early diagnosis and close follow-up with appropriate treatment.

CASE REPORT

A 22-year-old second gravida with a previous history of complete abortion in the 8th week of gestation (about one year ago) came to antenatal OPD of Assam Medical College for routine antenatal check-up in her 8th week of pregnancy. No uterine abnormality was reported by abdominal ultrasound in the first pregnancy. However, bicornuate uterus was diagnosed by transvaginal sonography in the current pregnancy at 8th week of gestation with the gestational sac in the right cornua of the uterus (Figure 1).

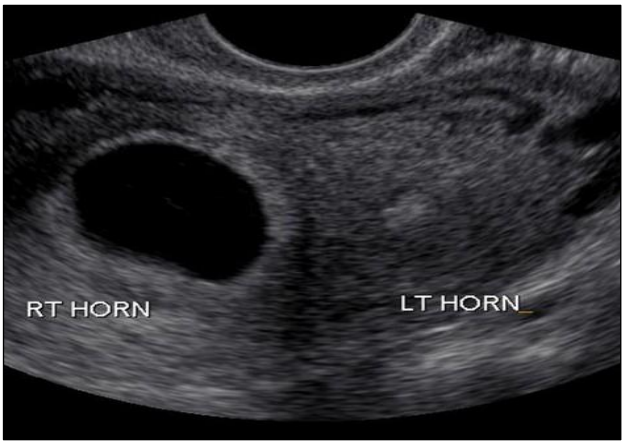

Figure 1: TVS showing two horns of bicornuate uterus with gestation sac in the right horn.

The next abdominal ultrasounds done in the 18th and 29th week of pregnancy confirmed the diagnosis and did not show any abnormality related to the foetus or the placenta. The patient came in the 39th week of gestation to the labour room complaining of pain abdomen. The patient was not in labour and an ultrasound was repeated which showed breech presentation of the foetus with estimated foetal weight of 2485 grams. No gross foetal anomalies were seen. Placenta was lying in the anterior wall. No retroplacental collection and no extension of placenta to the lower part of the uterus was noted. Liquor volume was also adequate.

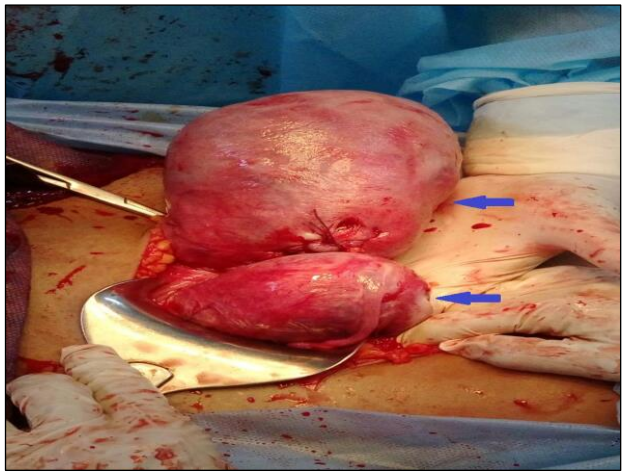

Figure 2: Bicornuate uterus: lateral view, showing the two horns of uterus after the delivery of baby.

The patient was scheduled for elective caesarean section. A healthy female baby was delivered by lower segment caesarean section under spinal anaesthesia. The baby's weight was 2360 grams with no congenital anomaly. Apgar score of one minute and five minutes was 8 and 10 respectively.

It is worth noting that the patient was diagnosed with a bicornuate uterus with a single common cervix (Figure 2 and Figure 3). The placenta and foetus were both located in the right horn of uterus. There was minimal loss of blood during the procedure. The patient was stable after the caesarean section. Post-operative period was uneventful. Both mother and baby were healthy at discharge.

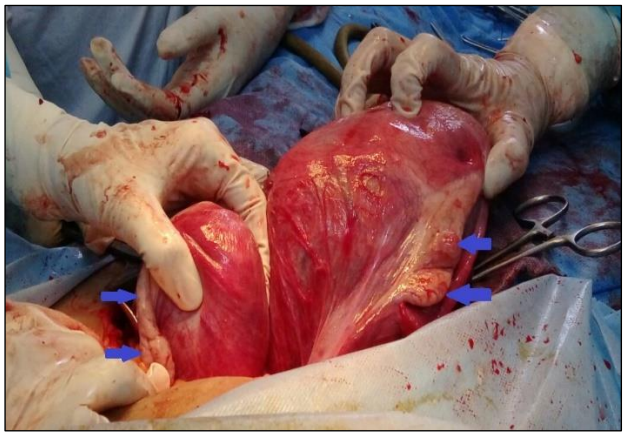

Figure 3: Bicornuate uterus: posterior view, showing the two horns along with bilateral fallopian tubes and ovaries.

DISCUSSION

Congenital uterine malformations are relatively common and often asymptomatic. Women with uterine anomalies have poorer reproductive outcomes and lower pregnancy rates compared with women who possess normal uterus. Uterine anomalies are associated with an increase in malpresentation, premature labour, abnormal presentation with dystocia, and the necessity for caesarean section.[4] Bicornuate uterus, caused by abnormal fusion of Mullerian ducts might be diagnosed before or during pregnancy. Bicornuate uterus does not lead to reduced fertility, but it may be associated with adverse pregnancy outcomes.[5] Studies have shown that uterine rupture might occur during pregnancy because of a thin wall and inability of malformed uterus to expand as a normal one.[6] Early ultrasound is a contributing method for evaluation of the effects of abnormal uterus on pregnancy.[7] Sensitivity of ultrasound in visualizing the rudimentary horn of uterus is 23%, which allows the diagnosis of only 14% of patients before the manifestation of clinical symptom.[8] In this case report, ultrasound could not identify the bicornuate uterus in the first pregnancy. This could be due to the small size of uterine horn or difficulty to provide proper imaging of this condition. However, the patient was accurately diagnosed with rudimentary horn of uterus in her second pregnancy. A bicornuate uterus does not always lead to complications and may carry a pregnancy to term. Although women with bicornuate uteri might experience successful pregnancy. Nevertheless, it seems necessary to raise the patients' awareness towards the possible outcomes of this condition by obstetricians. It is necessary to establish a

prenatal diagnosis to ensure proper care and prevent complications.

CONCLUSION

Pregnancy in a bicornuate uterus deserves early diagnosis of the anomaly, and meticulous care in pregnancy and delivery to avert the associated adverse outcomes. Clinicians should have high index of suspicion of uterine anomaly to make early diagnosis of bicornuate uterus and preventing complications.

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