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CASE REPORT

Pregnancy with bicornuate uterus: a case report

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ABSTRACT

Uterine malformations consist of a group of miscellaneous congenital anomalies of the female genital system and are seen in around 5% of the general population. A bicornuate uterus is a uterine malformation that occurs as a result of impairment of the fusion of Mullerian ducts. Bicornuate uterus is commonly associated with recurrent abortions and preterm labour. Many of the cases are asymptomatic, but it is important to suspect and consider this diagnosis in recurrent miscarriages, preterm labours, intrauterine growth retardation and malpresentation. We are presenting a 26 years old pregnant woman with a history of abortion. In her first pregnancy, the patient had a spontaneous abortion and later diagnosed with bicornuate uterus in the second pregnancy. During the second and third pregnancy, patient had episodes of leaking and bleeding per vagina at 34th week and 32nd week of gestation respectively. However, in both pregnancies, patient delivered term live babies through normal vaginal delivery. According to the results, pregnancy in bicornuate uterus can achieve successful outcomes even with normal vaginal delivery.

Keywords: Bicornuate uterus, mullerian anomaly, pregnancy.

Uterine malformations are observed in around 5% in the general population, 2-3% among fertile women, in 3% of infertile women and 5-10% in patients with recurrent miscarriage, wheremore than 25% seen in cases with late miscarriages and premature deliveries [1].

A bicornuate uterus is a uterine malformation that is produced due to partial fusion of Mullerian ducts resulting in a heart-shaped uterus instead of a pear shape. Congenital malformations of the uterus are the consequences of anomaly in combination, canalization and resorption of the septum during the development of Mullerian ducts [2]. The bicornuate uterus is a rare anomaly but it is associated with worse reproductive outcomes like recurrent abortions and preterm labour, intrauterine growth restrictions, malpresentations.

The abnormalities might be diagnosed before or during pregnancy or many might be asymptomatic and remain undiagnosed [3]. Bicornuate uterus is further divided into two types according to the partition of the cervix - Bicornuate unicollis: one cervical canal; and Bicornuate bicollis: two cervical canals [1].

Pregnancy in a bicornuate uterus has the possibility to be succeeded by post-partum hemorrhage. It is also associated with high risk for pregnancy induced hypertension during gestational period. Thus, it is essential to monitor blood pressure during pregnancy. Imaging plays an essential role in the diagnosis and management of bicornuate uterus; namely, ultrasonography (USG), magnetic resonance imaging (MRI), hysterosalpingogram, hysteroscopy and laparoscopy. In this case report, we discuss about the successful pregnancy outcomes with vaginal deliveries.

Case

A 26 years old patient presented to the emergency with labour pain of third pregnancy at 40 weeks of gestational period. She had previous history of spontaneous abortionin the first pregnancy, and termed normal vaginal delivery during the second pregnancy.

In the first pregnancy, patient had complete spontaneous abortion at 10weeks of gestation. Patient conceived after a month of spontaneous abortion and USG at 6 weeks revealed bicornuate uterus with gestational sac seen in the left cornua.

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At 34 weeks of gestation, patient had mild leaking per vagina but subsided eventually. At 37th week of gestation, ultrasonography revealed live foetus in cephalic presentation with mild oligohydramnios and no abnormalities of foetus or placenta noted. She was treated with L-Arginine sachet and gradually amniotic fluid index increased to normal. At 39 weeks of gestation, she was admitted and a healthy single live baby girl was delivered by normal vaginal delivery with no congenital anomaly. Apgar score of one minute and five minutes was 8 and 10 respectively. Post-delivery period was uneventful and both mother and baby were healthy at the time of discharge.

After a year, patient conceived with third pregnancy and ultrasonography at 11th week revealed bicornuate uterus with single embryo in the left cornu (figure1).

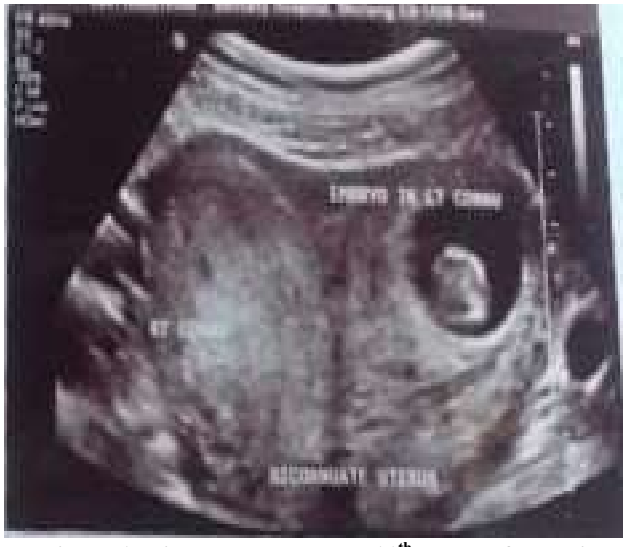

Figure 1: Bicornuate uterus at 11th weeks of gestation with single embryo in the left cornu.

At 32 weeks of gestational period, patient had lower abdominal pain with blood discharge per vagina, where patient was admitted and injection betamethasone 12mg was given but gradually the pain subsided. Abdominal scan showed live uterus in cephalic presentation with normal placenta and adequate amniotic fluid index (AFI-10.5) and no abnormalities detected in foetus. During this admission, patient was incidentally found to be positive for COVID-19 infection. As patient's lower abdominal pain subsided and patient was asymptomatic for COVID (common symptoms are fever, cough, fatigue, shortness of breath, myalgia, sore throat, diarrhoea, loss of smell and taste etc) patient was discharged and advised for home isolation as per COVID-19 protocol [4].

At 40weeks of gestation, patient came back to emergency with labour pain and had completely recovered from COVID-19 infection. Patient was immediately shifted to labour room and a single live baby boy was delivered through normal vaginal delivery weighing 3500 grams. Apgar score of one minute and five minutes was 8 and 10 respectively. An MRI of the pelvis was done post-delivery, where we can see the bicornuate uterus and bulkiness of uterus in the left cornua post-delivery with single cervix (figure 2).

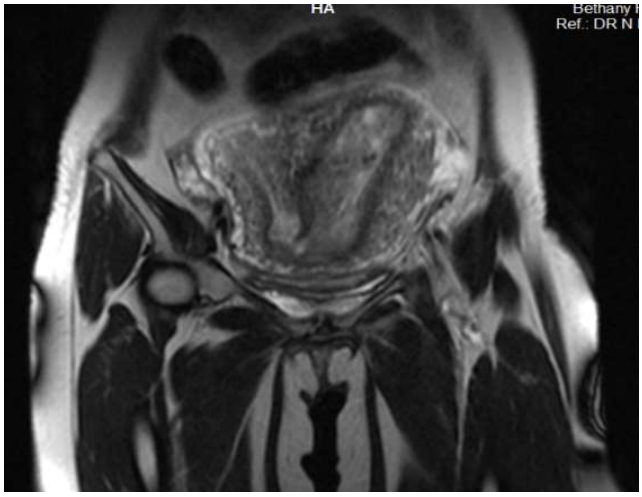

Figure 2: a

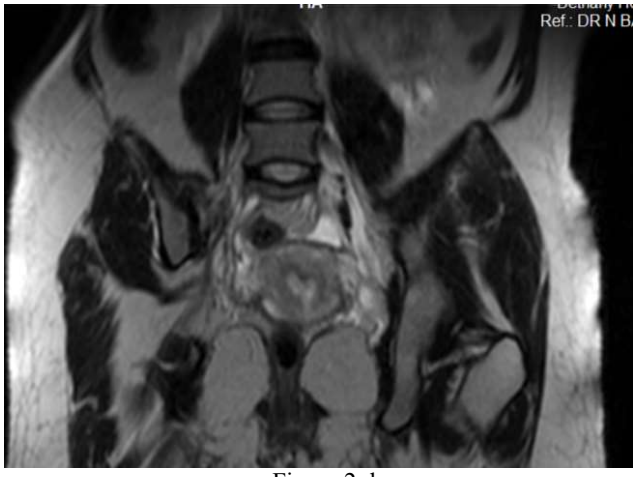

Figure 2: b

Figure 2: (a) Bicornuate uterus with bulkiness of left uterus post-delivery; (b) Single cervix.

There were no post-natal period complications of both mother and the baby. Patient was hemodynamically stable and hence was discharged.

Discussion

A bicornuate uterus is rare uterine malformation and it is fundamental to educate a woman diagnosed with this anomaly. Pregnancies are relatively common and many of them are asymptomatic, but should be suspected in patients with recurrent abortions, preterm labour, intrauterine growth restriction and malpresentation [3]. Studies show, women with uterine anomalies do not appear to have reduced fertility but they have lower reproductive outcomes as compared to women with normal uterus [5].

Infertile women have significantly high frequency of Mullerian anomalies (6.3%) compared with fertile (3.8%) and sterile (2.4%) women. Some reports confirmed the increased incidence of bicornuate uterus in the infertile population compared to the fertile population, the ratio being 1:1 and 1:4 respectively. However, the chances of having a term pregnancy were found to bemore than 60% and the rate of take-home baby was 62.5% [6].

In adolescents presenting with history of menorrhagia with dysmenorrhea, high suspicion should be maintained as this could lead to early diagnosis of the abnormality, thus, providing better reproductive outcomes in the future. Majority of the women are diagnosed during gestation, so it is important to counsel them about the reproductive outcomes including signs of preterm labor, possibilities of uterine rupture and advise to be prepared for a cesarean section when the need arise.

Early ultrasound is a contributing procedure for diagnosis and evaluation of the effects of abnormal uterus on pregnancy. The sensitivity of ultrasound in visualizing the rudimentary horn of uterus is 23% which only allows diagnosis in only 14% of patients before the onset of clinical symptoms [7].

In this case report, the first pregnancy was not diagnosed with bicornuate uterus but later diagnosed with ultrasonography in the second pregnancy. Although patient delivered through normal vaginal delivery in the second and third pregnancy, risks of preterm labour was noted in both pregnancies. Bicornuate uterus may carry a pregnancy till term without any complications, but it is important to create awareness about the possible outcomes of the condition. Prenatal diagnosis is necessary for proper care and prevention of complications at the earliest.

Conclusion

Pregnancy in bicornuate uterus is essential to be diagnosed at early weeks of gestation so as to provide meticulous care and monitoring of the whole period of gestation including early diagnosis of any anomaly or complications of both foetus and placenta, hence resulting in successful pregnancy outcome.

Conflict of interest: None.
Disclaimer: Nil.

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