

Bicornuate Uterus with Pregnancy

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ABSTRACT

Incomplete fusion of the Mullerian or paramesonephric ducts results in the most common types of uterine malformation: Uterus didelphys, Uterus bicornis bicollis, uterus bicornis unicollis, uterus subseptae, uterus arcuate, and uterus unicornis. Uterus bicornis bicollis is characterized by double or single vagina, double cervix and two single-horned uteruses which show partial fusing of their muscular walls with duplication running right down to the uterine orifice. These malformations are rare but known to be associated with infertility, spontaneous miscarriages, intrauterine growth restriction, preterm deliveries, preterm prelabour rupture of membranes, breech presentation and increased rate of caesarean delivery. However, normal reproductive performance has been seen in association with them.

Keywords: Ultrasound, Mullerian duct, Bicornuate uterus

INTRODUCTION

The human uterus is of Paramesonephric in origin. Any degree of failure of fusion of Mullerian ducts or subsequent failure of resorption of tissue results in spectrum of clinical manifestations. Uterus didelphys is a condition of lateral fusion defect causing two hemi uteri and cervixes. It constitutes approximately 5% of the Mullerian duct anomalies. According to American Fertility society classification of Uterovaginal anomalies, uterus didelphys belongs to class IIIB. It is a lateral fusion defect of the Mullerian ducts with symmetrical unobstructed Uterus didelphys having complete longitudinal vaginal septum. It is a rare uterine anomaly and according to one estimate, it occurs in 0.1%-0.5% healthy fertile population. Of all the uterine anomalies, didelphys uterus is associated with successful pregnancy. These malformations are associated with miscarriage, premature labour, premature rupture of the membranes, and malpresentations.

CASE REPORT

A 32 year old lady G3P2L2 with 20 weeks pregnancy came to the obstetrics department for her first antenatal check-up. Her first delivery was a normal vaginal delivery at term with growth restricted girl baby weighing 2 kg at birth and is now alive and healthy. Second was a caesarean section for breech, oligohydramnios and intrauterine growth restriction (IUGR). Third is present

pregnancy. Pregnancy dating ultrasound scan done at 11 weeks showed uterus to be deviated to the right [Figure 1] and a single live fetus of 10 weeks 3 days in abicornuate uterus with implantation in the left horn [Figure 2] and an empty right horn. She had a pregnancy loss at 14 weeks gestation.

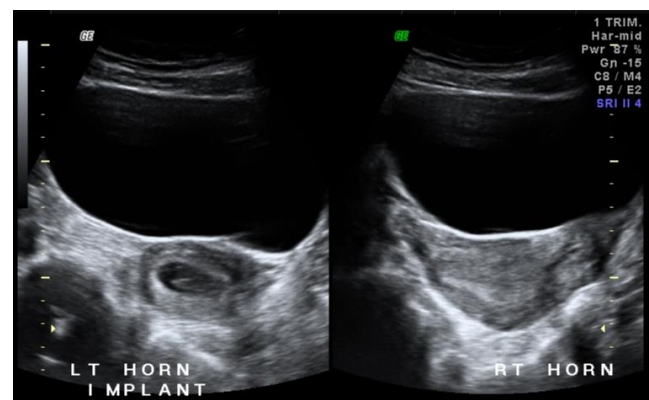


Figure 1: Ultrasound image of a bicornuate uterus showing right sided deviation.

DISCUSSION

Uterine abnormalities are the result of Mullerian or paramesonephric duct anomalies or disturbances at the time of fusion or development. Bicornuate uterus is a congenital uterine anomaly that results from defective

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lateral fusion of the paramesonephric ducts at about the 10th week of intrauterine life around the fundus [1].

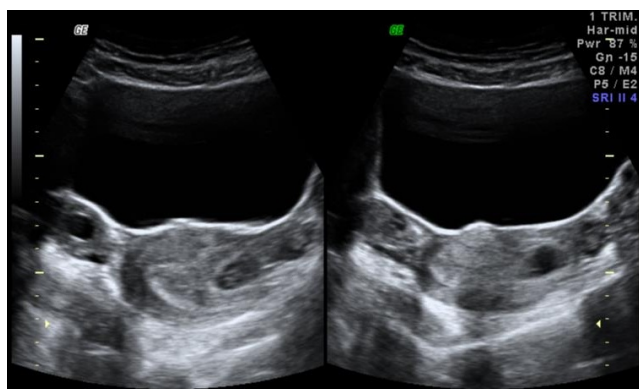


Figure 2: Ultrasound image showing a bicornuate uterus at 10 weeks 3 days gestational age with implantation in the left horn and an empty right horn.

The incidence of uterine malformations in general population is estimated to be about 3-5% and 5-10% in women with poor reproductive outcome [2]. Precise diagnosis requires diagnostic modalities like ultrasonography, magnetic resonance imaging, Hysterosalpingogram, hysteroscopy and laparoscopy [3]. Pregnancy occurring in the malformed uterus is relatively rare, and many of them are asymptomatic, but should be suspected in patients with recurrent miscarriages and malpresentations. Bicornuate uterus is a unification defect of the Mullerian ducts, and is estimated to represent 10% of Mullerian duct anomalies [4]. Bicornuate uterus may be asymptomatic and may remain undiagnosed until abdominal surgeries such as hysterectomy. One of the first diagnostic clues for the diagnosis of uterine anomalies is the occurrence of obstetrical complications. Women with bicornuate uterus may experience a successful pregnancy outcome, but are

still at risk of obstetric complications such as malpresentations, preterm rupture of membranes in small for gestational age foetuses, recurrent pregnancy loss, preterm delivery and cervical incompetence [5].

CONCLUSION

Uterine abnormalities are accompanied with uneventful outcomes such as preterm labour, fetal malpresentations, and even perinatal mortality. However, these anomalies may not be suspected before the occurrence of abortion or its complications. In the present report, IUGR in the first pregnancy, the breech position in the second pregnancy and abortion in the third pregnancy might have possibly resulted from uterine abnormality associated with the Bicornuate uterus. Although women with complete bicornuate uteri might experience successful pregnancy, they are still at the risk of certain complications. Nevertheless, it seems necessary to raise the patients' awareness towards the possible outcomes of this condition by physicians.

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