A Unique Case of Twin Gestation in Subseptate Uterus after Spontaneous Conception

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ABSTRACT
Abnormal fusion of the müllerian ducts or failure of absorption of the septum during embryological life results in a variety of congenital uterine malformations. These congenital abnormalities are associated with abortions, premature labor, premature rupture of the membranes and malpresentation. We are reporting the rare occurrence of spontaneous twin gestation in a woman with subseptate uterus.

Keywords: Congenital uterine malformations, Subseptate uterus, Twin gestation.

INTRODUCTION
Congenital uterine anomalies caused by müllerian fusion defects are the most common congenital anomalies of the reproductive system and septate uterus is the most common müllerian anomaly, occurring in 2 to 3% of women.1 It is associated with poor reproductive outcomes, such as recurrent spontaneous abortion, stillbirth and preterm birth, resulting in fetal survival rate of 6 to 28% and a high rate of spontaneous abortion as high as 60%.2

The American Fertility Society describes morphological categories, which are widely used for clinical management. The class V (canalization) defect, represented by a septate uterus, in which there is a failure of resorption of the septum between the two uterine horns and can be partial or complete. The septum is mainly muscular superiorly, histologically different from the normal myometrium, and more fibrous and thinner toward the cervix. The fundus may be convex, flat, or with a concavity that is <1 cm.3,4

CASE REPORT
Mrs X, a 25 years old primigravida first reported to obstetric outpatient department of our hospital with history of 2 months amenorrhea with excessive vomiting. She was married for 3 months and was conceived spontaneously. On examination, her vitals were stable. Patient was advised admission, investigated and managed conservatively. Ultrasound report showed twin pregnancy of 6.5 weeks with bicornuate uterus with each gestational sac occupying separate cavity. On clinical examination, single cervix was seen. Her blood investigations showed normal finding. Ultrasonography-kidney ureter bladder (USG-KUB) showed no abnormality detected.

Patient was admitted with similar complaints twice at 8 and 14 weeks. Patient was advised cervical encirclage operation at 14 weeks but she refused for operation. The risk of abortion and preterm delivery were explained. At 12 weeks, USG was repeated, showed diamniotic dichorionic twins. Anomaly scan was done at 22 weeks and no abnormality was detected in both fetuses. At 28 weeks, USG done for interval growth and no abnormality was detected. Patient was admitted with threatened preterm and injection betamethasone was given. Patient went into labor at 34 weeks and cesarean section was done for twins with malformed uterus considering risk of dystocia. A male weighing 1.8 kg with apgar 9/10 and a female weighing 1.5 kg with apgar 8/10 were both delivered by vertex through single incision. Both placentas with membranes delivered completely. A depression is seen at fundus (Fig. 1), and a septum is seen inside the uterus separating the uterus into two cavities in upper segment (Fig. 2), and in lower segment, septum was thin felt posteriorly till the cervix. Uterus closed in two layers. Postpartum period was uneventful. Both babies shifted to premature baby unit (PBU). Male baby diagnosed to have bilateral talipes equinovarus deformity. Female baby died on 6th day of delivery with necrotizing enterocolitis.
DISCUSSION

Septate uterus is considered the commonest uterine anomaly and is the most common anomaly associated with reproductive failure. Occurrence of twins in malformed uterus is considered a high-risk pregnancy. In this patient, the early ultrasound scan diagnosed the presence of uterine anomaly. Ultrasound scan remains the sole and reliable means of assessing the presence of these anomalies in pregnancy for safety reasons, as radiation and invasive diagnostic tools can jeopardize a viable intrauterine pregnancy. A two-dimensional ultrasound is reported to be associated with low precision in differentiating between arcuate, bicornuate and septate anomaly due to restricted view and assessment of the uterine fundus.\(^5,6\) The use of transvaginal 3D ultrasound has proved to be extremely accurate in the detection and classification of uterine anomalies.\(^7\) Three-dimensional imaging enhances the accuracy of the diagnosis so an ideal method of imaging seems to be 3D ultrasonography during pregnancy. In our case, 3D ultrasonography was not done. The evaluation of the uterine malformations should be accompanied by the renal investigation in effort to find some associated anomalies.

Cervical encirclage should be considered as malformed uterus and multiple gestation both are responsible for second trimester abortion and preterm delivery. In our case, cervical encirclage was not done. Injection betamethasone was given to prevent the complications of preterm delivery.

There is a paucity of information about twin pregnancy in a malformed uterus, because the incidence is very low and there are no guidelines for monitoring the pregnancy or selecting the mode of delivery. We have done cesarean section considering the risk of dystocia. This case illustrates that subseptate uterus carries risk of preterm delivery and positional limb deformity.

REFERENCES