



## Double Uterus with Single Cervix: A Case Report

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### Abstract

Congenital abnormalities of the uterus occur due to inappropriate formation, fusion, or absorption (resorption) of mullerian duct in uterus. The present study aimed at evaluating a patient with double uterus and twin pregnancy. This patient was a 19-year-old female and the first day of her last menstrual was on 14/11/2010. We observed transabdominal ultrasound abdomen and pelvis of the uterus and twins in the ultrasound center. On the vaginal ultrasound, the gestational sac and heart rate for both fetuses were observed, then, the patient was taken to the operating room for elective termination of pregnancy, and cesarean section was performed on both the uterus and the healthy boy fetuses were taken out. We concluded from this case that we should consider and manage deliveries and pregnancies before experience clarifies the ideal management.

**Keywords:** Double Uterus, Single Cervix, Twin

### 1. Introduction

Congenital abnormalities of the uterus occur due to inappropriate formation, fusion, or absorption of mullerian duct in uterus. This condition occurs in 1% to 10% of the population, in 2% to 8% of women who are infertile, and in 5% to 30% of women with a history of abortion (1). The normal development of reproductive system in females includes a complex process such as differentiation, invasion, fusion, and restriction of mullerian ducts (2). Mullerian ducts to the second channel are impaired due to inadequate absorption septum and result in uterine septum. All these defects cause infertility, recurrent miscarriage, early pregnancy loss (3), preterm birth, and poor fetal position in the uterus (4). Mullerian duct fusion and formation of the vaginal canal occurs between the 10th to the 17th week of fetal development. According to studies, this condition occurs in one out of every 2000 females in twin pregnancies (2), in which one half of the uterus, derived from mullerian duct, is far better than those of the 2 horns of the uterus (5). Although twin pregnancies may be successful, in very rare cases, 2 twin preterm births usually results in the spontaneous miscarriage of one of the babies. Pregnancy in patients with congenital malformations of the genital tract is high risk and requires special attention (6). The present study aimed at evaluating twin pregnancy con-

dition in a patient with double uterus.

### 2. Case Presentation

A 19-year-old female was admitted to our hospital. The first day of her last menstrual was on 14/11/2010. Our patient was a 19-year-old primigravida, and therefore, this was a premium pregnancy. There was no sign of spontaneous labor at the 38 weeks of gestation in our patient. We observed the positive and negative details of any delivery approach; vaginal delivery increases uterine rupture and dystocia risk. We observed the uterus using transabdominal ultrasound abdomen and pelvis. She was diagnosed with vaginal ultrasound, and the gestational sac and heart rate for both fetuses were also observed.

By technique of full bladder, the examination of transabdominal ultrasound with sector scanner Combison 320 (KRETZ technik, 5 MHz) revealed a uterine malformation of uterus didelphys. We saw a double cervix with a septum vagina in gynecological examination. During pregnancy, the patient was under observation at 3-month intervals. She used calcium D and folic acid during this period.

She experienced a true labor contraction. Upon arrival, the patient's vital signs were stable: (BP: 100/60, RR: 18, PR: 80, T: 37.2°C). Fetal heart rate was 146 for 1 minute and another was 144 in vaginal examination, and the cervix was

closed.

The patient was hydrated with 1000 mL of dextrose saline – saline, and indomethacin was 100 mg/single dose of magnesium sulfate to 4 g/20 min, and then, 2 g/h and betamethasone injection at a dose of 4 mg 3 times a day (TDS). Thirty minutes later, the patient was seen again and indomethacin was prescribed as suppositories TDS, and she was admitted to have ultrasound to examine the kidneys and urinary tract system. The first diet was NPO to ensure a stable state labor contractions, then, normal diet was initiated, and the patient received serum - 40 GTT 2000 cc Ringer + 2000 cc dextrose/water (D/w) 5%.

The next day, the patient was transferred to the postpartum maternity ward. Patient's serum changed to 1000 cc Ringer + 1000 cc D/w 5%. On 9/07/2011, the patient complained of abdominal pain following the resample U/A and U/C, and surgical consultation (to rule out appendicitis) was performed.

Despite the fact that the patient was monitored in the hospital, she was suffering from abdominal pain and examination procedures. A single injection of indomethacin and betamethasone 8mg every 8 hours was administered by intramuscular injection. Fetal non-stress test (NST) was done and the patient' informed consent was obtained for termination of pregnancy. Pregnancy and renal tract ultrasonography was performed on an emergency basis.

The patient platelet's count had decreased (131,000), but she did not require platelet transfusions, so we performed a blood test, and blood (1 unit), fresh frozen plasma (FFP) (2 units), and platelets (2 units) were administered to the patient. Gentamicin (80 mg) injections was started for the patient using intramuscular injection every 8 hours, and the patient was prepared for surgery; her heart rate was checked at least every half hour. The patient was taken to the operating room for elective termination of pregnancy, and cesarean section was performed on both uteruses. Product delivery was 2 healthy baby boys with Apgar as 10/9 and weighting 2000 and 2200 grams.

### 3. Discussion

True prevalence of uterine and other congenital anomalies in populations is unknown, but it is known to vary from 0.1% to 10%. In addition, in one study, 24.2% of women who had uterine anomalies were affected by uterus didelphys (7). Anomalies of urogenital system are associated with highest prevalence of failure of reproductive system and obstetric complications. Based on previous studies, women who had this form of congenital anomaly needed to receive infertility treatment more frequently than those with other uterine anomalies (7); and the overall performance of reproductive system is poor in

uterus didelphys (8). However, some others mentioned that those with didelphic uterus have the best chance for a successful pregnancy (57%) (9), with a fetal survival rate of 64% (10). Multifetal gestation in a didelphys uterus is very rare (11). In these patients, cesarean section as well as spontaneous delivery at term time has been reported as a successful delivery (2, 5, 6, 12, 13).

A rare condition is a bicornis unicollis uterus with a twin gestation, with any of one twins located in one horn of the uterus (14). In this condition, the potential of different complications include premature labor, miscarriage, premature membrane rupture, intrauterine growth restriction, and malpresentation (8, 15). Our patient was a 19-year-old primigravida, and this was, therefore, a premium pregnancy. Opinions for delivery of children in this condition are vaginal delivery or elective Caesarean section (5, 12, 16). There was not any sign of spontaneous labor at the 38 weeks of gestation in our patient, and delivery symptoms occurred after 38 weeks of pregnancy. We observed the positive and negative details of any delivery approach; vaginal delivery increases uterine rupture and dystocia risk. On the other hand, caesarean section in this condition may be prolonged because of the time required to open the first horn of the uterus, delivering baby, closing the first incision of uterus, and then opening the second horn, which can jeopardize the health of the second twin (16). To prevent this risk for the second twin, we cut the first horn, delivered the first twin, and immediately opened the second horn and delivered the second twin, and then, at the end of the procedure, we closed both incisions simultaneously.

### 3.1. Conclusions

Twin pregnancy management in a bicornis unicollis uterus must be individualized with respect to the management of the delivery and pregnancy. These actions should be done until further reported experience clarifies the ideal management.

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