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Bicornuate Uterus with Previous C-Sections: A Case Report

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Abstract: Bicornuate uterus is a type of Mullerian duct malformation caused by incomplete fusion of fundal uterine cornu that leads to two connected uterine cavities and one cervix. The incidence of bicornuate uterus is estimated to be 0.1-0.6% and it is believed to account for 10% of all uterine anomalies. We reported a case of bicornuate uterus with previous cesarean sections in an expecting mother presented in labor during her 38-39 weeks of pregnancy. She had a history of two previous cesarean sections. Based on physical examination and transabdominal USG, the fetus was found in breech presentation. She was managed with another cesarean section. During the operation it was found that she had a bicornuate uterus. The main problems for this case were pregnancy with bad obstetric history, previous cesarean sections, breech presentation, and complications that could occur in future pregnancy. The patient was presented already in labor, so she was managed with emergency cesarean section to reduce the risk of uterine rupture. During the operation, she was found to have a bicornuate uterus. This proved that the cause of repeated breech presentation was one of the complications that could occur in pregnancy with bicornuate uterus. The most ideal management for this patient was elective cesarean section. In 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. A high index of suspicion is needed to diagnose uterine abnormalities before the occurence of its complications

Keywords: bicornuate uterus; breech presentation; pregnancy; Mullerian duct anomalies

Introduction

Bicornuate uterus is a type of Mullerian duct anomalies caused by incomplete fusion of fundal uterine cornu that leads to two connected uterine cavities and one cervix. This condition is classified as congenital uterine malformation. In the general population, the prevalence of congenital uterine malformation is about 5%, where bicornuate uterus encompasses about 10% from this number. This malformation rarely happens but is known to cause infertility, spontaneous abortion, IUGR, premature labor, premature rupture of membrane, breech presentation, and increased number of cesarean section in pregnancy.[1]

The origin of the uterus is from the paramesonephric duct. Any failure in the process of fusion or resorption of Mullerian duct can cause uterine malformation. Bicornuate uterus is further classified into two types which are bicolis bicornuate uterus (uterine didelphys) and unicolis bicornuate uterus. The incidence of uterine malformation in woman with bad obstetric history is about 5-10%. Uterine malformation should always be considered in patient with habitual abortion or malpresentation. Clinical manifestation of bicolis bicornuate uterus includes dysmenorrhea, dyspareunia and infertility whereas of unicolis bicornuate uterus could be fetal malpresentation in pregnancy (breech or transverse presentation).[1]

Bicornuate uterus can be asymptomatic and incidentally diagnosed in per abdominal operation. Woman with bicornuate uterus can have a successful pregnancy, but has an increased risk of obstetric complications.

Fetal malpresentation is caused by larger fundal space compared to lower uterine segment. Thus, the relatively bigger head will occupy the fundal space leading to breech presentation. Bicornuate uterus is associated with increased rate of cesarean section delivery caused by malpresentation.[2,3]

Moreover, aterm pregnancy in the case of severe uterine malformation is rare because spontaneous abortion and uterine rupture could happen before the third trimester. Pregnancy with bicornuate uterus is difficult to diagnosed especially in places with inadequate equipment for antenatal care. In several cases, this condition gives bad outcome for the mother and fetus.[2,4,5]

Case Report

A 30 year-old-pregnant woman G3P2A0 presented with lower abdominal pain associated with labor and bloody show. Based on her last menstrual period she was on the 38th week of pregnancy. Her past obstetric history was two previous cesarean sections (the first one due to macrosomia, intra uterine fetal death/IUFD and the second one due to previous C-section). Her vital sign was normal. Physical examination was within normal limit. Obstetric examination showed fundal height of 34 cm, regular uterine contraction (2 times 15-20 secs in 10 minutes), fetal heart rate of 140-145x/min, and breech presentation. On pelvic examination, she was 3 cm dilated with 90% effacement, intact membrane, and the fetus breech could be felt. Laboratory examination was unremarkable. Based on transabdominal sonography, we found a singleton fetus with estimated fetal weight (EFW) of 3500-3600 g, fetal movement and fetal heart rate were found, placental implantation was grade II-III on the fundus, biparietal diameter (BPD) was 9.56 cm, abdominal circumference (AC) was 34.40 cm, femur length was (FL) 7.56 cm, amniotic fluid index was 5 cm, and breech presentation suggesting a singleton pregnancy with 38-39 weeks of gestational age. Non-stress test was reactive. Based on those examinations, we had a working diagnosis of G3P2A0 30 years old with 38-39 weeks of pregnancy; in the first stage of labor (inpartu); two previous C-sections; and alive singleton with breech presentation.

Based on history taking and physical examination, the patient was managed with emergency cesarean section. Maternal vital sign and fetal heart rate were monitored. Lower uterine segment incision was done. A female baby was born with birth weight 3500 g, birth length 48 cm, and apgar score of 7-8.

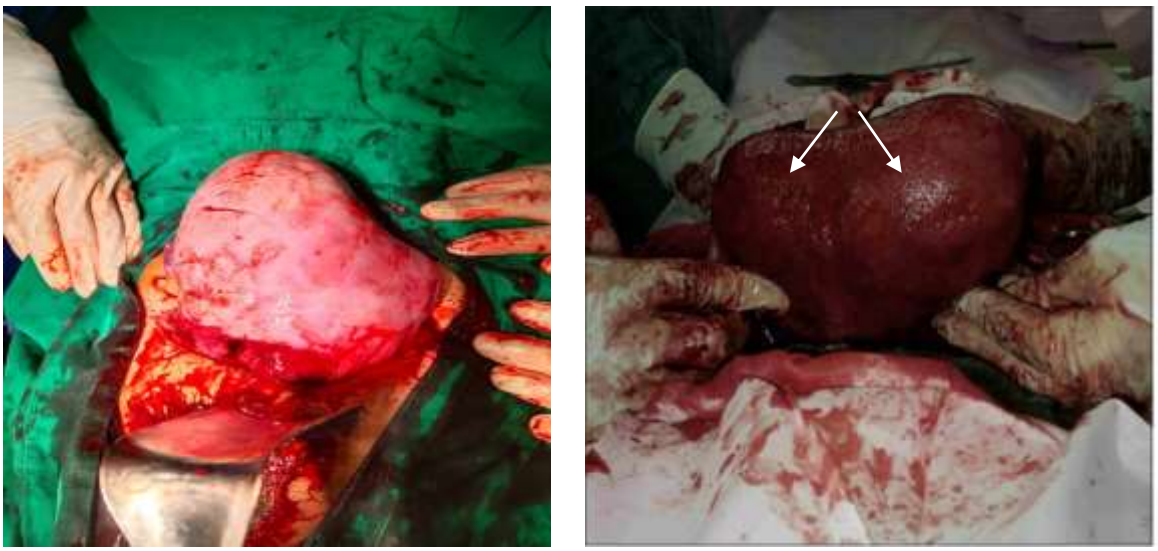

Figure 1. Emergency caesarean section. White arrows show bicornuate uterus.

Discussion

The main problems of this case are pregnancy with bad obstetric history, previous cesarean sections, and complications that could occur in the future pregnancy. The causes of IUFD and macrosomia in her first pregnancy was unclear as she was operated in another center. Ideally, we have to look for the etiology of those conditions. Back then, she was managed by cesarean section.

The second cesarean section was done in another center, too. It was done because of previous cesarean section and breech presentation. She was managed with another cesarean section owing to the increased risk of uterine rupture and complication such as retention of the after coming head which can cause maternal and fetal death.[3,5]

The third cesarean section was due to the two previous cesarean sections and breech presentation. It was during the third C-section, the bicornuate uterus was found. This proves that the cause of repeated breech presentation is one of the complications that can occur in pregnancy with bicornuate uterus.

The patient was presented already in labor. The most ideal management for this patient was elective cesarean section due to the previous cesarean section. According to WHO, a pregnant woman should have at least eight (8) antenatal care (ANC) during pregnancy, however, this patient did not have a regular ANC. In this case, if the patient had a regular ANC, maybe the bicornuate uterus could be diagnosed earlier with the help of ultrasonography and hysterosalpingogram.[3,5,6,8]

Pregnancy planning is very important for every woman wanting pregnancy especially if they have other medical conditions which could lead to complications. Pregnancy planning includes preconception counselling, and risk evaluation associated with woman health condition which has direct impact on maternal morbidity and mortality. Contraception counselling should also be done early in pregnancy. However, this patient was counseled on the use of contraception only after she was in labor because she never had ANC at the hospital. The use of contraception is important for this patient to prevent future pregnancy as there are many obstetric complications that could occur if she gets pregnant again. Contraceptive methods which are ideal for this patient are tubal sterilization, intrauterine device, and hormonal contraceptive (implant).[4,7] In this case, the patient refused tubal sterilization and chose implant hormonal contraception.

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 their awareness towards the possible outcomes of this condition by physicians. Therefore, we must encourage pregnant women to have routine ANC to detect any health conditions associated with pregnancy to reduce maternal and neonatal morbidity and mortality.

Conclusion

In this case report, the breech position in the second and the third pregnancies might have possibly resulted from uterine abnormallity due to the bicornuate uterus.

Uterine abnormalities such as bicornuate uterus are often asymptomatic. It usually accompanied with uneventful outcomes such as preterm labour, fetal malpresentation, and even perinatal mortality. However, these anomalies may not be suspected before the occurrence of its complications especially if the ANC was done in a low-resource and suboptimal setting.

Conflict of Interest

The author affirms no conflict of interest in this study.

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