

CASE REPORT

INCIDENTAL FINDING OF BICORNUATE UTERUS DURING CAESAREAN SECTION: A CASE REPORT

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ABSTRACT

Background: In general population, the prevalence of uterine anomalies is ranged from 3% to 5%. This report would like to discuss a case of successful pregnancy outcome at term delivery in patient with bicornuate uterus in district area of Indonesia Soe, East Nusa Tenggara, Indonesia.

Case Report: A 30-year-old first gravida with 39 weeks of gestation coming for elective cesarean section due to primipara in breech pregnancy. There was baby girl born in 2,500 grams of birthweight. Both tubes and ovaries were normal. Meanwhile, there was bicornuate uterus with a single common cervix. On ultrasound examination after cesarean section, we found both kidneys in normal size, bicornuate uterus with thickening of endometrial line in left

side and normal endometrial line in right side. We measured that the septum was 38 mm. Both mother and baby were healthy at discharge.

Result: Bicornuate uterus is usually asymptomatic and diagnosed due to obstetrical complication or accidentally. Uterine abnormalities are increased risk of first and second-trimester loss of pregnancy, preterm delivery <28 weeks, low birth weight babies, and malpresentation at delivery. Imaging plays an essential role in diagnosis and management of bicornuate uterus. It is fundamental to educate a woman with this anomaly.

Conclusion: Malpresentation in this case may be caused by bicornuate uterus.

Keywords: Bicornuate uterus, malpresentation, cesarean section, pregnancy outcome.

INTRODUCTION

Congenital uterine anomalies usually result from abnormal development of Mullerian ducts or paramesonephric duct anomalies.¹ In general population, the prevalence of uterine anomalies is ranged from 3% to 5%.² Each anomaly is often contributed to the complication during pregnancy. Of these number of uterine anomalies, the incidence of bicornuate uterus is 10.3%.³

A bicornuate uterus is often asymptomatic and accidentally diagnosed per abdominal surgery.⁴ It could happen in pregnancy; unfortunately, the bicornuate uterus would increase the risk of obstetrical complications such as malpresentations, preterm rupture of membranes, small for gestational age infants, and miscarriages. Methods to diagnosis require ultrasonography (USG), magnetic

resonance imaging (MRI), hysterosalpingogram, hysteroscopy, and laparoscopy.² Actually, pregnancy with a bicornuate uterus is rather difficult to diagnose, especially in places with inadequate equipment for antenatal care. Therefore, this report would like to discuss a case of successful pregnancy outcome at term delivery in RSUD SoE, East Nusa Tenggara, Indonesia as a rural area.

Case Report

A 30-year-old first gravida with 39 weeks of gestation came for an elective cesarean section due to primipara in breech pregnancy. The patient came for her first antenatal check-up in the second trimester and found no uterine abnormality from the abdominal ultrasound. Since 32 weeks of gestation, the physical and ultrasound examination showed breech presentation. At 36 weeks of gestation, the abdominal ultrasound confirmed the diagnosis of breech presentation and no fetal or placental abnormality; thus, the patient was planned for elective cesarean delivery in 39

weeks.

There was a baby girl born at 2500 grams of birthweight with Apgar scores of 8 and 9. No gross fetal anomalies were seen. The placenta was lying in the anterior wall. After the placenta peeled, the isthmus was sutured continuously, and there was no active bleeding. During the exploration of the uterus, both tubes and ovaries; there was a bicornuate uterus with a single common cervix (Figure 1). The placenta and fetus were both located in the left horn of uterus. The caesarean section is completed with minimal blood loss and good recovery. There was no complication noted on this patient.

After two days of cesarean section, we performed abdominal ultrasound due to the lack of transvaginal ultrasound in our hospital, RSUD SoE, East Nusa Tenggara, Indonesia. We found both kidneys were in normal size (Figure 2), bicornuate uterus with thickening of endometrial line on the left side and normal endometrial line on the right side (Figure 3). We measured that the septum was 38 mm (Figure 4). Both mother and baby were healthy at discharge.

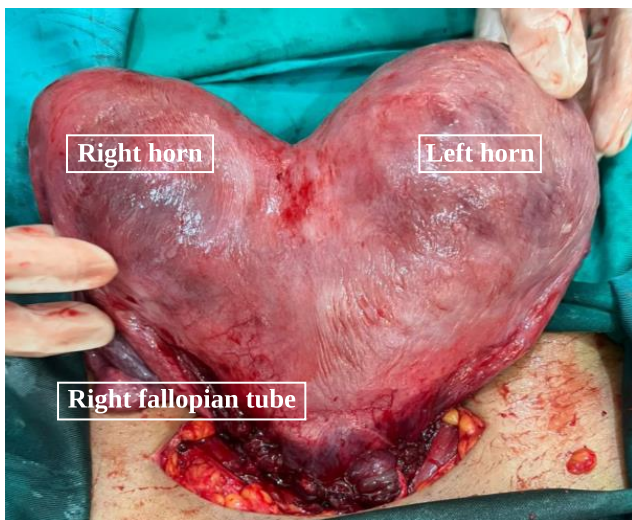


Figure 1. Bicornuate uterus during cesarean section from anterior side

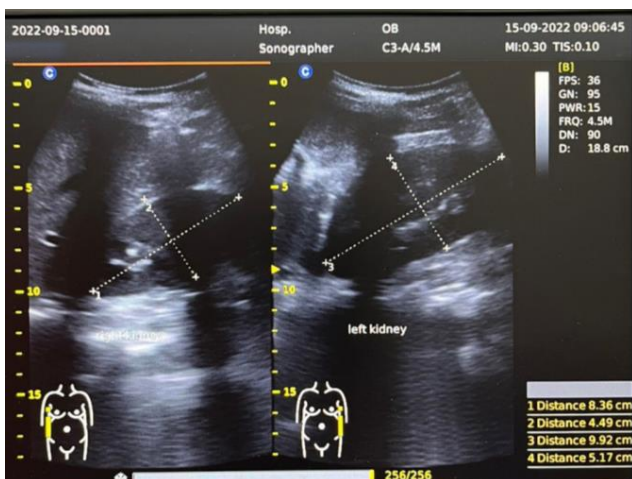


Figure 2. Normal kidney

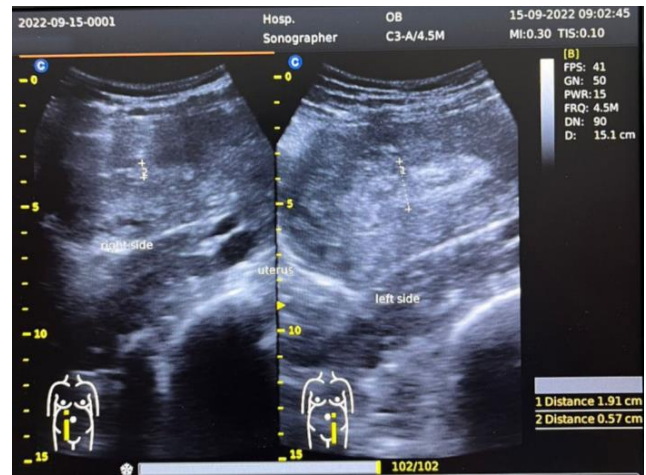


Figure 3. Right and left horn of bicornuate uterus



Figure 4. Bicornuate uterus with septum

DISCUSSION

One of uterine abnormalities consisted of bicornuate uterus which was caused by abnormal fusion of Mullerian or paramesonephric duct.⁵ America Society of Reproductive Medicine (ASRM) classifies the bicornuate uterus based on the partition of cervix. It becomes to bicornuate unicollis and bicollis.⁶ The clear etiology is still unclear. It is believed to be multifactorial between genetics and environmental factors. Genes Wnt7a regulates the differentiation of Mullerian ducts and it is responsible for expression of Hoxa 10 and Hoxa 11 genes for differentiation of ducts into fallopian tubes, uterus, cervix, and vagina.⁷ Meanwhile, one of predicted environmental factor is caused by the exposure of diethylstilbestrol during pregnancy; however, diethylstilbestrol is no longer used now.⁸

Bicornuate uterus is usually asymptomatic until pregnancy because it impacts to the obstetrical complications so that this condition is usually found accidentally. Venetis CA, et al.⁹ through meta-analysis, stated that uterine abnormalities will raise the risk of loss of pregnancy in first or second trimester, preterm delivery <28

weeks, low birth weight, and malpresentation at delivery. Renal anomalies (agenesis) are frequently associated with Mullerian anomalies, especially for didelphys uterus.¹⁰ In our case, there were normal kidneys' size and shape to exclude the differential diagnosis between bicornuate and didelphys uterus.

In diagnosis and managing the anomaly, imaging such as hysterosalpingography, ultrasound, and MRI is considered necessary.⁵ In rural area, there is only an ultrasound facility to diagnose this abnormality. 3D ultrasonography has a sensitivity and specificity of 99% and 100%; respectively, in the separation of the bicornuate uterus from the septate uterus. Of coronal view of the uterus, if the indent >10 mm is bicornuate and <10 mm classified as arcuate/subseptate.¹¹ In this case, ultrasound could not reveal the bicornuate uterus during pregnancy because it was rather difficult to show the uterine abnormalities in the second trimester. In addition, evaluation two days after cesarean section determined that the indent was 38 mm and suggested as the bicornuate uterus. Nevertheless, it should be done the best during the secretory phase of menstrual cycle.

Based on the possibility of obstetrical outcome in bicornuate uterus, it is essential to counsel the patients for reproductive outcomes, prenatal monitoring and signs of preterm labor on woman. The risk of uterine rupture, malpresentation in pregnancy, and preparation for cesarean section should be considered and explained to the woman.¹² In this case, malpresentation causing elective cesarean section made this anomaly found accidentally during surgery. Although the outcome is pretty successful without any major complication this patient, it seems necessary to raise the awareness of possible pregnancy outcomes by obstetricians. Antenatal care from the first trimester for pregnant women should be encouraged to detect this uterine anomaly and reduce maternal and neonatal morbidity and mortality.¹

Regarding the method of contraception, distorted uterine cavity increases the risk of intrauterine device (IUD) failure; thus, it is considered as a relative contraindication to use IUD in bicornuate uterus. Meanwhile, it can be recommended if insertion of one IUD into each of uterine horn.¹³ It will be better to use another Long-Acting Reversible Contraception (LARC) to prevent pregnancy. A uterine abnormality of bicornuate uterus causes malpresentation with breech presentation. Bicornuate uterus has several pregnancy complications such as preterm labor, second-trimester loss of pregnancy, and fetal malpresentation. This abnormality is not detected in antenatal care due to low-resource and suboptimal settings, so it is found accidentally during surgery.

CONCLUSION

A uterine abnormality of bicornuate uterus causes malpresentation with breech presentation. Bicornuate uterus has several pregnancy complications such as preterm labor, second-trimester loss of pregnancy, and fetal malpresentation. This abnormality is not detected in antenatal care due to low-resource and suboptimal settings, so it is found accidentally during surgery.

CONFLICT OF INTEREST

None declared.

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