

Bicornuate Unicollis Uterus: A Rare Case of Twin Pregnancy

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Abstract

Bicornuate uterus is a rare congenital malformation of the uterus and structural abnormality that results in pregnancies that are rarely carried to term. It commonly results in pregnancy complications such as miscarriages, IUGR, preterm deliveries, cervical incompetence and fetal malpresentation. This report highlights a case in which a 32-year-old patient with twin pregnancy within a Bicornuate unicollis uterus. One fetus was present in each of the uterine horn later delivered at 36 weeks via emergency caesarean section.

Keywords: Bicornuate uterus, MRI, Pregnancy, Twin

Introduction

Müllerian anomalies or congenital malformations of the female genital tract, represent a spectrum of uterine developmental disorders that can significantly influence reproductive outcomes. Such anomalies may disrupt gestational processes, causing recurrent pregnancy loss, preterm birth, fetal growth restriction, abnormal fetal presentations, and increased cesarean delivery rates.¹⁻³ Twin pregnancies, especially those with a uterine anomaly, face compounded risks due to anatomical limitations of the malformed uterus.³ Close antenatal monitoring, individualized delivery planning, and multidisciplinary care are essential for optimal maternal and neonatal outcomes.^{2,3} Here, we report a complex obstetric case in a woman with a known Mullerian anomaly and challenging reproductive history, highlighting pathology, risk, and interventions underpinning successful outcomes.

Several classifications of uterine anomaly have been proposed; a classification by the ASRM was established in a revision of the American Fertility Society (AFS) classification from 1988.³ We follow this classification in this case report.

Case Report

A 34-year-old gravida 5, para 2, living 2, abortion 2 (G5P2L2A2) presented in the outpatient department at 7 weeks period of gestation with dichorionic diamniotic (DCDA) twin pregnancy, conceived naturally. The obstetrics ultrasound revealed two uterine horns; with the gestational sac and fetal pole with cardiac activities in both the horns.



Figure 1: 2D Ultrasound imaging Bicornuate uterus with one fetus in each horns.

The patient's obstetric history included a term vaginal delivery 11 years ago, a preterm birth at 23 weeks four years ago ending in early neonatal death, and two first-trimester spontaneous abortions five years ago. She was a known case of a Mullerian anomaly, which was diagnosed during her second pregnancy at the time of the dating ultrasound scan. MRI was advised but patient did not get it done. Standard antenatal care was provided and both fetuses had reassuring growth parameters on ultrasonography, with no anomalies.

She was planned for an elective caesarean section at 37 weeks. However, at 36 weeks of gestation, she presented with preterm prelabour rupture of membranes (PPROM). On presentation, clinical and laboratory evaluation was unremarkable, with no signs of infection or labor. On cervical examination, a single cervix was observed with clear amniotic fluid leaking through it.

Given the gestational age, twin gestation, and prior history, an immediate emergency lower segment cesarean section (LSCS) was performed under regional anesthesia. Two fetuses were present in separate uterine horns, both in cephalic presentations. Two separate incisions were given to deliver the babies. Both fallopian tubes and ovaries appeared normal, and the two placentas were located in anterior walls. Two live infants were delivered—a male weighing 2.3 kg and a female weighing 1.9 kg—both with good APGAR scores. The estimated intraoperative blood loss was 250 ml. The mother's postoperative course was uneventful. Both neonates remained healthy, were roomed-in the next day, and all three were discharged in good health.

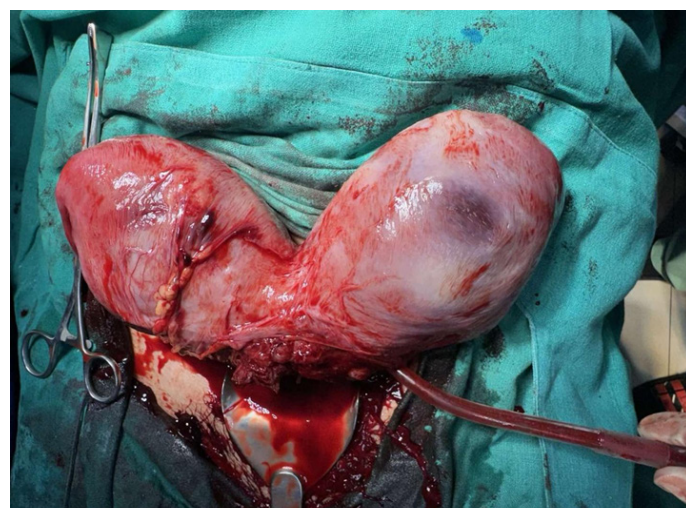


Figure 2: Intraoperative images of Bicornuate uterus.

Discussion

This case exemplifies the challenges of Müllerian anomaly pregnancies. Disorders of Müllerian duct development—including septate, bicornuate, unicornuate, and didelphys uteri—can lead to adverse reproductive outcomes due to reduced uterine volume, abnormal endometrial surface, or compromised vascularity.¹⁻³ The risk of miscarriage, preterm birth, malpresentation, and fetal growth restriction rises with severity.^{1,2} In this patient, recurrent early pregnancy losses and

prior preterm birth were probable sequelae.

Twin pregnancy in the context of Müllerian anomaly further increases risk for adverse outcomes.^{2,4} DCDA twins are prone to preterm labor, PROM, placental insufficiency, and cesarean section (2-4). In this case, PROM at 36 weeks necessitated timely intervention to reduce the risk of infection and optimize neonatal outcomes. The emergency cesarean section was justified given the twin gestation, fetal maturity, and obstetric history. The infants' healthy birth weights and absence of complications represent a favorable outcome uncommon in such high-risk contexts.

Management of pregnancies complicated by Müllerian anomalies must be individualized and multidisciplinary. MRI is preferred for precise uterine anomaly classification, though often missed due to socioeconomic constraints.³⁻⁵ Regular antenatal surveillance for fetal growth, amniotic fluid, and presentation is critical.² Mode of delivery should consider fetal presentation, obstetric history, and maternal anatomy.³ Cesarean is often indicated for malpresentation, labor dystocia, or fetal distress, with surgical risks heightened by pelvic anatomy anomalies.² In this case, both surgical and postoperative outcomes were favorable.

In a systematic review, only 16 cases of twin pregnancy associated with a bicornuate uterus were reported.¹ Doruk et al⁶ described a case of a twin gestation in a bicornuate uterus that was delivered via cesarean section. They concluded that cesarean delivery may be the preferred mode of delivery in such cases to reduce the risk of obstetric complications, such as fetal malpresentation and uterine rupture. Psychological support is vital for women with recurrent pregnancy loss. Education around risk, delivery options, and the importance of surveillance are core to comprehensive care.⁵ Postnatally, both mother and neonates require close follow-up for early detection of complications.

Conclusion

Twin pregnancy in a bicornuate uterus is an extremely rare phenomenon. Ultrasound and MRI play an important role in the diagnosis. Müllerian anomalies significantly heighten risk for miscarriage, preterm labor, and operative delivery, particularly in multifetal gestations. This case highlights the necessity for prenatal surveillance and individualized delivery planning based on anatomy and history. Favorable maternal and neonatal outcomes are achievable with vigilance and multidisciplinary care. Early imaging, risk counseling, and structured follow-up are vital for women with congenital uterine anomalies.

References

1. Chan YY, Jayaprakasan K, Tan A, Thornton JG, Coomarasamy A, Raine-Fenning NJ. Reproductive outcomes in women with congenital uterine anomalies: a systematic review. *Ultrasound Obstet Gynecol.* 2011 Oct;38(4):371-82. DOI: [10.1002/uog.10056](https://doi.org/10.1002/uog.10056) PMID: 21830244
2. Grimbizis GF, Campo R. Congenital malformations of the female genital tract: the need for a new classification system. *Fertil Steril.* 2010 Jul;94(2):401-7. DOI: [10.1016/j.fertnstert.2010.02.030](https://doi.org/10.1016/j.fertnstert.2010.02.030) PMID: 20356581
3. Ludwin A, Ludwin I. Comparison of the ESHRE-ESGE and ASRM classifications of Müllerian duct anomalies in everyday practice. *Hum Reprod.* 2015 Mar;30(3):569-80. DOI: [10.1093/humrep/deu344](https://doi.org/10.1093/humrep/deu344) PMID: 25534461
4. Rackow BW, Arici A. Reproductive performance of women with müllerian anomalies. *Curr Opin Obstet Gynecol.* 2007 Jun;19(3):229-37. DOI: [10.1097/GCO.0b013e32814b0649](https://doi.org/10.1097/GCO.0b013e32814b0649)
5. Practice Committee of the American Society for Reproductive Medicine. Electronic address: ASRM@asrm.org; Practice Committee of the American Society for Reproductive Medicine. Uterine septum: a guideline. *Fertil Steril.* 2016 Sep 1;106(3):530-40. DOI: [10.1016/j.fertnstert.2016.05.014](https://doi.org/10.1016/j.fertnstert.2016.05.014) PMID: 27235766
6. Doruk A, Gozukara I, Burkaş G, Bilik E, Dilek TU. Spontaneous twin pregnancy in uterus bicornis unicollis. *Case Rep Obstet Gynecol.* 2013;2013:834952. DOI: [10.1155/2013/834952](https://doi.org/10.1155/2013/834952) PMID: 24349808