CASE REPORT

Uterus didelphys: two pregnancies, two term breech caesarean deliveries

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SUMMARY

We report the case of a woman with uterus didelphys who spontaneously conceived two singleton pregnancies, one in each uterus, and was delivered in both instances of a healthy breech infant at term by elective caesarean section.

BACKGROUND

Uterus didelphys is a rare congenital abnormality resulting from failure of fusion of the Müllerian ducts and thus the formation of two uterine cavities, two cervices and, in some cases, two vaginas. Each uterine cavity has a single horn and is attached to a fallopian tube. It is associated with an increased rate of miscarriage, preterm delivery, intrauterine growth restriction, abnormal lie/presentation and caesarean delivery.^{1 2}

We present the case of a woman with uterus didelphys who achieved term delivery of two healthy infants, one from each horn, from two consecutive pregnancies. Both pregnancies were complicated by breech presentation at term, and both were delivered by caesarean section.

CASE PRESENTATION

In 2012, a 34-year-old primiparous woman presented for antenatal care at 11 weeks' gestation in her first pregnancy. She had been diagnosed with uterus didelphys 8 years previously following gynaecological assessment and investigation for dyspareunia, pelvic pain and irregular menstruation. An ultrasound scan had confirmed two completely separate uteri, and a renal tract ultrasound had demonstrated normal kidneys and ureters.

The antenatal dating scan demonstrated a singleton pregnancy in the left-sided uterus, and she was referred to the fetal medicine unit for follow-up. Here she was counselled regarding the increased risks of miscarriage, fetal growth restriction, preterm delivery, abnormal fetal lie and delivery by caesarean section. She underwent serial ultrasound scans, which demonstrated normal fetal anatomy, consistent growth and normal fetoplacental Doppler studies. At 34 weeks, the liquor volume was noted to be on the tenth centile, but fetal growth was maintained within normal limits. The fetus remained in the persistent breech presentation and an uncomplicated elective caesarean section was performed at 38 weeks' gestation. An angled incision was made in the left-sided uterus and a healthy 2900 g male infant was delivered by

breech extraction (see [figure 1](#)). The postoperative recovery was uncomplicated.

After delivery, she was referred to gynaecology/colposcopy services as she had never had a smear test due to discomfort during examination and difficulty identifying the cervixes clearly. She was offered an examination under anaesthesia but declined.

In 2016, the patient presented again in her second spontaneously conceived pregnancy. A first trimester ultrasound scan demonstrated a singleton pregnancy, this time in the right-sided uterus. Serial ultrasound examinations were scheduled and these demonstrated normal fetal anatomy, growth, liquor volume and fetoplacental Dopplers, with breech presentation from 34 weeks onwards. A 2900 g male infant was delivered by breech extraction at caesarean section (see [figure 2](#)). The baby was in excellent condition at birth, the postoperative course was uncomplicated, and the mother and the baby were discharged home on the second postoperative day.

INVESTIGATIONS

Ultrasound examination prior to pregnancies demonstrated uterus didelphys and normal renal tracts. Dating scans in the first trimester showed singleton pregnancies in the left then right uterus in consecutive pregnancies. Serial growth scans were performed in both pregnancies, which showed normal anatomy and growth and a small reduction in liquor volume in the first pregnancy from 34 weeks. Both babies were breech at term.

DIFFERENTIAL DIAGNOSIS

During an early pregnancy ultrasound in the first pregnancy, the sonographer felt the uterus could be bicornuate; this was ruled out as a prepregnancy assessment had demonstrated two uterine cavities, two cervices and a vaginal septum.

TREATMENT

The pregnancies were both monitored closely with ultrasound examinations performed at regular intervals because of the increased risk of growth restriction and abnormal lie. Delivery was expedited by elective caesarean section on both occasions.

OUTCOME AND FOLLOW-UP

Both babies were born at term and were of normal birth weight. The patient recovered well from both caesarean sections. Gynaecological follow-up to

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Figure 1 First caesarean section: image showing the enlarged left uterus after delivery of the infant and closure of the uterine incision.

address the difficulties obtaining smears was arranged between the pregnancies, but the patient declined further intervention until her family was completed.

DISCUSSION

Uterus didelphys is rare, with the incidence reported in a recent large meta-analysis of unselected women of 0.3%.³ It is associated with a high rate of preterm delivery (20%–53%), breech presentation (40%), fetal growth restriction (11%) and caesarean section delivery (50%–84%).^{1 2 4–6} The live birth rate has been reported to be between 40% and 81.5%.¹ Diagnosis is usually by ultrasound, although MRI may be a useful adjunct if the ultrasound or clinical examinations are incomplete or inconclusive.⁷

Counselling regarding the increased risks associated with pregnancy is desirable for these women, along with careful surveillance during pregnancy to detect growth restriction and abnormal lie. Renal tract ultrasound is advisable to rule out the rare Herlyn-Werner-Wunderlich syndrome, where there is ipsilateral renal agenesis. Delivery is often by caesarean section, although with cephalic presentations successful vaginal births have been reported, even following previous caesarean deliveries.^{8 9} There is also a case report of a dicavity twin pregnancy with both delivered vaginally at 34 weeks' gestation.¹⁰

Figure 2 Second caesarean section: image showing the enlarged right uterus after delivery of the infant and closure of the uterine incision.

Patient's perspective

"Discovering I had uterus didelphys was quite a shock. I couldn't fault the care I received – I was referred early on, monitored regularly, prepared for any eventuality and both babies were delivered with the expert care and specialist knowledge of my Obstetric Team. This gave me a great deal of peace of mind throughout the whole process, and I have two brilliant boys, both of whom are thriving!"

Learning points

- Uterus didelphys is a rare anatomical abnormality of the female genital tract.
- Diagnosis of uterine didelphys is confirmed on ultrasound examination or MRI.
- There is an increased risk of miscarriage, preterm delivery, growth restriction, malpresentation and caesarean delivery.
- Once recognised, a good pregnancy outcome is possible, but close surveillance during the pregnancy is required.
- Caesarean section is usually required due to malpresentation, difficulty in assessing progress in labour and the risk of tearing the vaginal septum.

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REFERENCES

- 1 Grimbizis GF, Camus M, Tarlatzis BC, Bontis JN, Devroey P. Clinical implications of uterine malformations and hysteroscopic treatment results. *Hum Reprod Update* 2001;7:161–74.
- 2 Heinonen PK. Clinical implications of the didelphic uterus: long-term follow-up of 49 cases. *Eur J Obstet Gynecol Reprod Biol* 2000;91:183–90.
- 3 Chan YY, Jayaprasadan K, Zamora J, et al. The prevalence of congenital uterine anomalies in unselected and high-risk populations: a systematic review. *Hum Reprod Update* 2011;17:761–71.
- 4 Ludmir J, Samuels P, Brooks S, et al. Pregnancy outcome of patients with uncorrected uterine anomalies managed in a high-risk obstetric setting. *Obstetrics and Gynaecology* 1990;75:906–10.
- 5 Heinonen PK. Uterus didelphys: a report of 26 cases. *Eur J Obstet Gynecol Reprod Biol* 1984;17:345–50.
- 6 Heinonen PK, Saarikoski S, Pystynen P. Reproductive performance of women with uterine anomalies. *Acta Obstetrica et Gynecologica Scandinavica* 1982;61:157–82.
- 7 Bajaj SK, Misra R, Thukral BB, et al. OHVIRA: Uterus didelphys, blind hemivagina and ipsilateral renal agenesis: Advantage MRI. *J Hum Reprod Sci* 2012;5:67–70.
- 8 Rezai S, Bisram P, Lora Alcantara I, et al. Didelphys uterus: a case report and review of the literature. *Case Rep Obstet Gynecol* 2015;2015:1–5.
- 9 Ng'ang'a N, Ratzersdorfer J, Abdelhak Y. Vaginal birth after two previous caesarean deliveries in a patient with uterus didelphys and an interuterine septal defect. *BMJ Case Rep* 2017;2017:bcr-2016-219149.
- 10 Al Yaqoubi HN, Fatema N. Successful vaginal delivery of naturally conceived dicavity twin in a patient with uterus didelphys: a rare reported case. *Case Rep Obstet Gynecol* 2017;2017:1–4.

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