

A rare case of dicavitary twins: a pregnancy in each horn of a uterus didelphys

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BACKGROUND

Pregnancy in women with uterine didelphys is uncommon, with the incidence ranging from 1 in 1000 to 1 in 30,000. Dicavitary twin pregnancy is exceedingly rare with an estimated occurrence of 1 in 1,000,000[1]. There are significant risks involved with these pregnancies, including an increased risk of miscarriage, pre-term labour, malpresentation, and delivery via caesarean section.[2]

We report on the case of a patient who experienced a dicavitary twin pregnancy - a pregnancy in each horn of a uterus didelphys - secondary to frozen embryo transfer into each uterine cavity. This is only the second case of dicavitary twins reported in Australia, and a first for our facility.

CURRENT LITERATURE - RESULTS

Thirty-six published cases of dicavitary twins were reviewed with publication dates ranging from 1954 to 2021.

Most cases were conceived spontaneously (59%), while 8.1% had ovulation induction and IUI, 10.8% had ovulation induction alone, and 5.4% had embryo transfers. The method of conception was not documented in 5 cases.

Within the literature, 8 women successfully carried both pregnancies to term. Delayed delivery of the second twin (>24hr later) was reported in 9 of the cases (25%), with the greatest inter-delivery of two living twins being documented by Mashiach et al as 72 days[3].

References

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3. Mashiach S, Ben-Rafael Z, Dor J, Serr DM. Triplet pregnancy in uterus didelphys with delivery interval of 72 days. Obstet Gynecol. 1981 Oct;58(4):519-21
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RESULTS

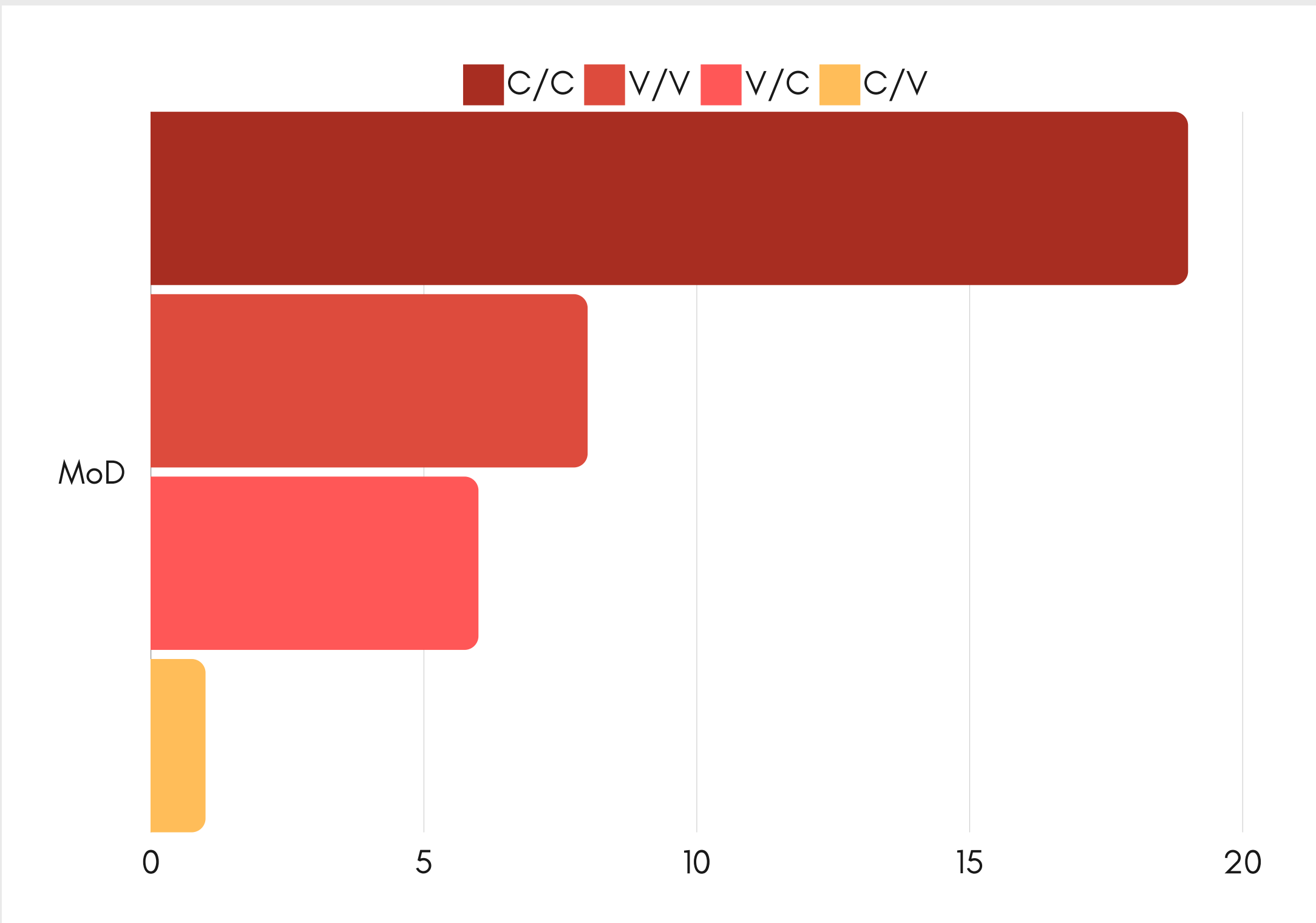


Figure 1: C - caesarean section, V - vaginal birth

Mode of delivery was reported in 34/36 cases (with 2 not included in full detail). Caesarean section for each twin was the most common amongst the cases reviewed, with 19 out of 34 cases (55.8%). Vaginal birth of both twins occurred in 8 cases. Only one case reported a caesarean birth for twin 1, and a vaginal birth for twin 2 [4].

DISCUSSION

There is evidence that in cases of dicavitary twins, each uterus and cervix has the capability of functioning independently. Maschiach reports a case where there was a 72 day delay between delivery from each uterus. Our patient experienced pre-term rupture of membranes and then proceed into labour from only the left uterus. This is in keeping with other literature reports which suggests that the onset of labour was localised to each individual uterus.

Patients with dicavitary twins can safely deliver either vaginally, or by caesarean section. As with other twin pregnancies, they should be warned about the potential of vaginal birth for twin 1, and emergency caesarean for twin 2.

CASE REPORT

A 27-year-old G1P0 was referred to our tertiary obstetric unit in South-East Queensland, Australia after being diagnosed with a viable pregnancy in each uterine cavity. Anatomically, this patient has two uterus', two cervices, and a complete longitudinal vaginal septum.

The patient had undergone frozen embryo transfer overseas with one embryo being placed in each uterine cavity prior to returning to Australia. This was her first cycle of in-vitro fertilization.



She had a BMI of 22 and no significant past medical or surgical history. The patient had a low risk NIPT and morphology scan showed normal anatomical structures of both fetus'. The cervical length at morph showed the left canal was 44mm and the right canal was 50mm. Regular growth and wellbeing scans were undertaken with our MFM unit and demonstrated concordant fetal growth, normal amniotic fluid index and normal dopplers.



At 32-weeks gestation, Twin 1 had an estimated fetal weight of 1774g (25th centile) and Twin 2 had an estimated fetal weight of 1857g (37th centile).

The pregnancy course was uncomplicated until 35+6 weeks gestation when the patient had pre-term rupture of membranes and spontaneous labour within the left uterus. There were no signs of labour within the right uterus, with a long and closed right cervix and no palpable uterine activity. Both twins were delivered via Caesarean section as per maternal preference. The caesarean was uncomplicated, with a transverse skin incision and bilateral classical incisions. Both twins had excellent outcomes.