Lata Gedafa, Tadesse Gure, Abel Teshome. *Ethiop Med J, 2020, Vol. 58, No. 4*

CASE REPORT

DICAVITORY TWIN PREGNANCY IN UNDIAGNOSED UTERUS DIDELPHYS DELIVERED BY CAESAREAN SECTION

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ABSTRACT

Uterus didelphys represents a uterine malformation where the uterus is present as paired organ. There is presence of double uterine bodies with two separate cervices and often a double or septate vagina. Women with congenital malformations of uterus usually have higher incidence of complications during pregnancy and delivery. We report the case in our institute of a dicavitory twin pregnancy in the both sided body of undiagnosed didelphys uterus delivered by caesarean section.

Keywords: *Uterine didelphys, Caesarean delivery, Mullerian duct, Ethiopia*

INTRODUCTION

Simultaneous pregnancy in each uterine cavity of a double uterus is unusual but was reported by Davies and Cellan-Jones in 1927 (1) and recently by Yang et al. in 2015 (2). The incidence of this anomaly is one in 3000 (3). It remains a challenge to the obstetricians especially when it is undiagnosed before onset of labor. Patients are usually asymptomatic, but the anomaly may be associated with dysmenorrhoea, dyspareunia, infertility, recurrent abortion, preterm labor, fetal malpresentation, intrauterine-growth restriction, premature rupture of membranes (PROM), renal agenesis, recurrent still births and cesarean delivery (1-6). Diagnosis is usually initiated by the findings of a longitudinal vaginal septum and two vaginal openings during vaginal examination. A 3-D-transvaginal sonography is an excellent non-invasive method of investigation (6).

Other methods of investigations include sonohysterography, hysterosalpingography, hysterolaparoscopy and pelvic magnetic resonant imaging. The incidence of cesarean delivery in uterus Didelphys in pregnancy may be as high as 82% (2). However, several good pregnancy outcomes have, been reported, including vaginal deliveries, and twin and triplet pregnancies (7-11).

The aim of this case report is to make clinicians to have high index of suspicion of uterine anomaly when investigating cases of recurrent still birth, infertility, spontaneous-abortion, preterm-labor, fetal-malpresentation, intrauterine growth-restriction, PROM and renal agenesis. Early diagnosis, meticulous follow up can avert most of these complications.

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We present a case of an undiagnosed simultaneous pregnancy in each uterine cavity of a uterus didelphys in term pregnancy that was complicated with prolonged PROM, breech presentation, cord prolapse and an emergency caesarean delivery to buttress the need for early diagnosis, close monitoring in pregnancy and labor to avert adverse outcomes.

CASE SUMMARY

Pre-operative examination

A 21 Years gravida five para four (all stillbirth) married for five year presented to our institution. She did not remember her last normal menstrual date but claimed nine months of amenorrhea. She presented to our labour room with complaint of labour pains and passage of liquor since nine hour. She had three times antenatal check-ups in a private clinic for her current pregnancy and was diagnosed to be having twin, a non- vertex and was advised to undergo caesarean section in view of first twin non vertex. She had four consecutive pregnancy losses at six, seven and eight months of amenorrhea. All were vaginal delivery and this was her first visit to our institute. On pre-operative physical examination her pulse rate was 78 beats/minutes, her BP 110/80mm/Hg in left arm, supine position, she was not anemic. Cardiovascular and respiratory systems were normal appearing. Per-abdominal examination her uterus was 38 weeks of gestational age, multiple fetal parts with two fetal polls palpable, fetal heart rate for twin-A 140 bpm and for twin-B 144 bpm, uterus contractions were three in 10 min, each contraction lasting for 10-15 seconds.

On vaginal examination her cervix was 80% effaced, three cm dilated. Pulsatile loop of cord was felt in the vaginal canal with thick non communicative vaginal septum.

Intra-operative findings

Under spinal anesthesia, abdomen opened by pfannensteil incision. Lower uterine segment caesarean section was done on right uterus. Baby twin-A presented as flexed breech with loop of cord was delivered by breech extraction. It was an alive male baby of weight 2.5 kg with Apgar score of eight and ten. After delivery of the placenta, when right uterus was exteriorized, another gravid uterus was found on left side. It was diagnosed to be a case of uterus didelphous. Twin -B fetus weighting 1.9 kg female delivered with Apgar score of 7 & 9 from the left uterus. Each uterus had one fallopian tube and ovary (Figure 1).

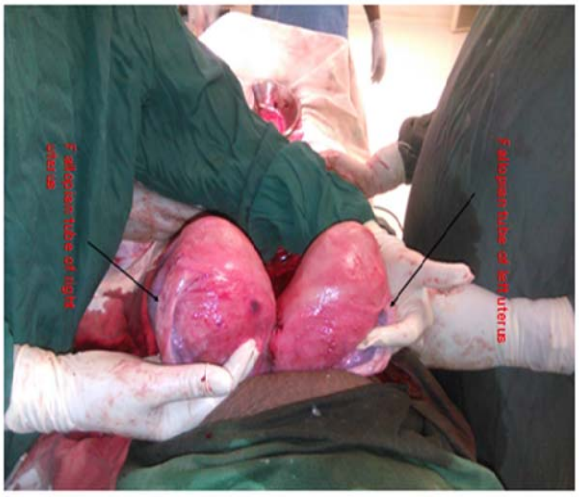

Figure 1: Intra operative images of uterine didelphys each having their own tube and ovaries.

Both ovaries and tubes appeared to be healthy looking. Both uteri had separate cervices opening into separate vagina. Bilateral kidneys were palpated and were normal. Estimated blood loss was 500ml. Incision to delivery interval was 30 minutes.

Post-operative condition

The mother's postoperative recovery was uneventful. After written consent has been collected and preserved, post-operative sonography was repeated (Figure 2) and vaginal speculum examination done (Figure 3).

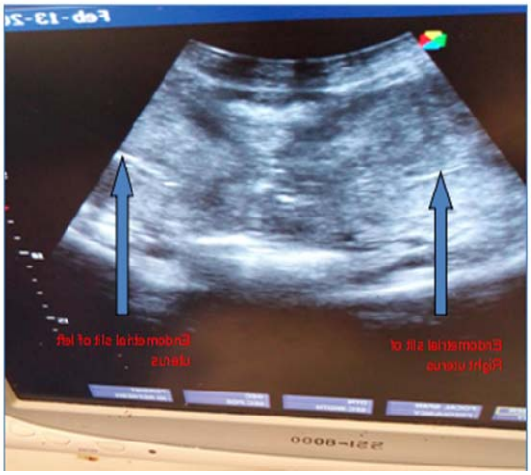

Figure 2: postoperative sonographic image of didelphys showing two endometrial slit.

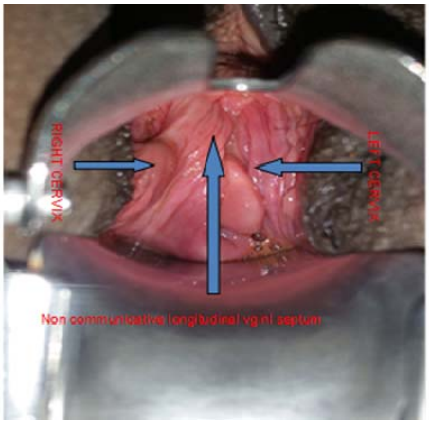

Figure 3: Image of non-communicative vaginal septum.

Dressing was removed on 3rd post-operative day and she was discharged on 4th post-operative day after advising her on family planning and future mode of delivery to be by repeated cesarean section.

DISCUSSION

A double or didelphys uterus as reported in the literatures is still uncommon even in Africa. It will even be more unpopular because of poor care-seeking behavior and lack of diagnostic equipment. This is especially true in large rural population of Ethiopia where poverty and different phases of obstetrics delay are rife. It also means that women needing care do not get access to quality care like in our case where her poor care seeking behavior ended up with four consecutive still births and poor quality of prenatal care ending with undiagnosed uterus didelphys.

While infections are very important and should always be considered as causes of preterm labour. A high index of suspicion will help to diagnose a uterine anomaly; it often leads to more precise clinical examination and studies in cases of recurrent stillbirth and preterm birth, where other causes such as infection and cervical incompetence have been ruled out (13,14).

Uterus didelphys is rare and sometimes not even diagnosed. It occurs in 0.1% -0.5% of healthy fertile population (12). Heinonen PK (3) evaluated the long-term clinical consequences, and reproductive performances of 49 women with uterus didelphys that were followed up to 6.3 years. He found five (13%) had primary infertility. Thirty four out of 36 (94%) of the women who wanted to conceive became pregnant, 21% had miscarriage, while 2% had ectopic pregnancy. The fetal survival rate was 75%, prematurity 24%, fetal growth retardation 11%, perinatal mortality 5.3%, and caesarean delivery rate 84%. Pregnancy was located in the right uterus in 76% cases.

Our patient experienced most of these complications associated with uterus didelphous including four consecutive still-birth, preterm labour and cesarean delivery for the current pregnancy. Her current pregnancy was in both - uterus (twin), and remained uneventful until she had prolonged term PROM with cord prolapse and an emergency caesarean delivery. Her uterus Didelphys was undiagnosed for her previous four consecutive stillbirths until she was operated for the current pregnancy and incidentally diagnosed intra operatively as a case of uterus didelphys. She missed the meticulous prenatal care that was advocated by Heine on PK (3) in her previous pregnancies that would have prevented the adverse outcomes that were associated with this anomaly.

Early diagnosis and prompt operative delivery would have prevented the stillbirths. Previous studies including this study were mostly case reports, and the results cannot be generalized on the general population. Only Heinonen PK (3) was able to follow 49 cases up to 6.3 years. Recent advances in diagnostic techniques, and availability of meticulous medical services and treatments for the associated complications that favor good outcomes depict the international clinical relevance of early diagnosis of the subject. None availability of such modern diagnostic technique in most developing countries like Ethiopia may be the cause of the delay in establishing diagnosis, and thus delayed prompt interventions that could have averted the adverse fetal outcomes.

The directions for further studies should include universal availability of diagnostic techniques like 3-D ultrasound with vaginal probes so that population studies can be undertaken, uterine anomalies identified, and protocol for the management such anomalies established.

Conclusion

Double uterus is an important cause of recurrent preterm births and still-birth like in our case. Thorough pelvic examination should be conducted for women of reproductive age groups when they present for gynecological consultation to rule out double uterus. In the absence of this, pregnant women should have at least one ultrasound study to check their babies and their uterus for rare conditions in order to avoid the obstetrics catastrophe which was reported in our practice.

Most importantly, health education should be intensified through different media on the reality of double uterus and its attendant complications as a means to boost antenatal care booking and attendance for early diagnosis and appropriate management of this congenital anomaly.

ACKNOWLEDGEMENT

WE thanks Dr Bikila Abilu for assisting during evaluation and management of the case .We also thank our maternity OR staff for taking picture during cesarean delivery.

Competing Interest:

The authors declare that this manuscript was approved by all authors in its current form and that no competing interest exists.

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