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TERM PREGNANCY WITH A SUCCESSFUL FETAL OUTCOME IN AN UNDIAGNOSED DIDELPHYS UTERUS: A CASE REPORT.

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Abstract

Didelphys uterus is a rare congenital abnormality of the Mullerian duct with incidence ranging from 0.5% to 5% of all the Mullerian development anomalies. A successful pregnancy in a didelphys uterus is even rarer. We present a case report of successful pregnancy outcome in a didelphys uterus. Mrs.LK a 22 year old primigravida referred from a maternity home as a case of poor progress of labour at 38 weeks gestational age. Examination revealed 2 vaginal orifices with the left orifice continuous with the uterus harboring the fetus. She had emergency caesarean section that confirms didelphys uterus. Her intra-operative and post-operative periods were uneventful. Proper evaluation and management of pregnancy in a didelphys uterus will prevent unwarranted complications.

Key words: Cesarean section, didelphys uterus, Full term pregnancy.

Introduction:

Uterine didelphys {a subset of Mullerian development anomaly (MDA)} is an embryologic abnormality resulting from the failure of fusion of the Mullerian ducts, leading to abnormal uterine development. These abnormalities include failure of development, fusion defect, failure of canalization and reabsorption failure.

The incidence of 0.5% to 5% has been reported by different authours[1-4]. Septate uterus with the incidence of about 35% is the commonest MDA, followed by biconuate uterus (25%), then arcuate uterus (20%)[1-4].

Patients with uterine anomalies have poor pregnancy outcome like spontaneous

miscarriage, pre-term delivery, caesarean delivery (due to abnormal presentation and lie) and low live births when compared with normal patients[1]. Patients with didelphys and unicornuate uterus have better pregnancy outcomes than those with other uterine anomalies[4]. Term pregnancies have been reported to occur in up to 60% of women with didelphys uterus[6] who eventually conceive, though with majority of them with bad outcome.

Most women with uterus didelphys are asymptomatic, while some present with dyspareunia. In rare occasions haematocolpos/hamatometrocolpos may present due to blind ending vaginal orifice of one uterus. Renal anomalies may be associated with uterus didelphys due to common embryological origin of urogenital system.

The correct diagnosis of MDA is mainly by use of invasive methods like hysterosalpingography, laparoscopy/laparotomy with the help of clinician's subjective interpretation[7]. A 2D ultrasound is inadequate for differentiating subtypes of MDA, though it is the first form of imaging done in accessing patients with suspected MDA. However, a 3D ultrasound can be used to overcome the limitations of 2D ultrasound as it gives a coronal view that enables examination of endometrial cavity and uterine fundus; thus giving the information needed for morphological classification[7,8]. Magnetic resonance imaging (MRI) has same accuracy as the invasive methods in diagnosing MDA; it has advantage of being non-invasive and could also diagnose associated urinary tract abnormality[9].

We present a rare case of successful pregnancy outcome in a primigravida with an undiagnosed didelphys uterus.

Case report:

Mrs. LK was a 22year old un-booked primigravida who was referred to private specialist hospital Nnewi from a maternity home as a case of poor progress of labour at 38 weeks gestational age. She was admitted in the maternity home with a day history of labour pains and passage of show. Artificial membrane rupture was done in the maternity about 4 hours on admission. She was referred after 10 hours in labour at the maternity home on account of poor progress of labour.

She attended her ante-natal care at the maternity home and her pregnancy was un-eventful. She did not do any ultrasound during her antenatal visit, and she indicated that her booking investigations were normal though she does not know the names of the investigations.

On examination, she was a young lady in intermittent painful distress. She was afebrile, not pale but was dehydrated. Her blood pressure was 130/74 mmHg and pulse rate was 110 beats per minutes.

Her abdomen was uniformly enlarged and moved with respiration. She was having 3 strong contractions in 10 minutes with each lasting between 40 and 50 seconds. Her symphysio-fundal height was 37 centimeters. She had intrauterine gestation in cephalic presentation with fetal heart rate of 156 beats per minutes. Vaginal examination showed 2 vaginal orifices (figure 1) with left orifice continuous with the uterus harboring the fetus. The right orifice ended in un-effaced cervix.

The left cervix was fully dilated and the presenting part with moderate caput and molding at station minus 1. A diagnosis of poor progress of labour secondary to cephalo-pelvic disproportion, with suspected genital tract anomaly was made. She was resuscitated with intravenous fluid and booked for an emergency lower segment caesarean section. The full blood count and urinalysis were normal.

She had emergency cesarean section under spinal anesthesia. The following findings were noted; 2 separate horns of uterus with normal ovaries and fallopian tubes on each side (figure 2). A live male neonate with birth weight of 3.6kg and good APGAR scores with complete placenta were delivered from the left horn of the uterus. The uterus and the abdomen were repaired and she had a satisfactory post-operative period. She was discharged on the 4th post-operative day in good condition. She was seen at six weeks post natal visit with result of intravenous urogram that showed no urological abnormality. She was counseled on the incidental diagnosis of uterus didelpys that was diagnosed during the cesarean section.

Figure 1

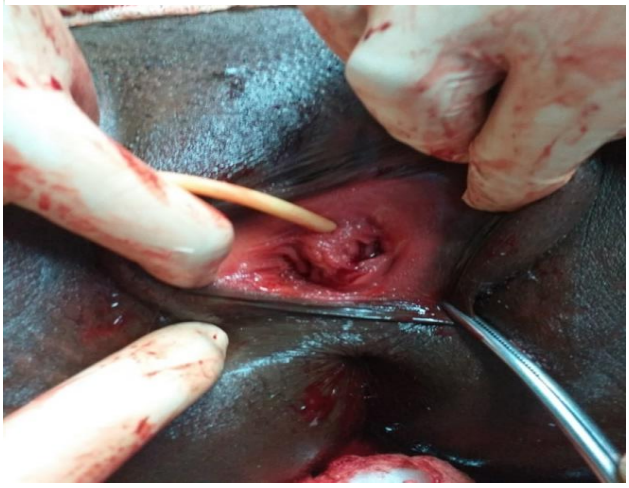
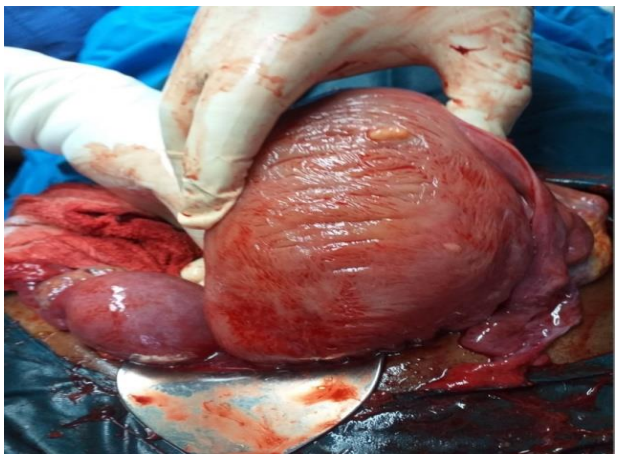


Figure 2



Discussion:

Didelphys still remain rare MDA in comparison with other variants of MDA, with incidence of 0.5%-5%[1-4]. Most of clinical studies on pregnancy in a didelphys uterus were case reports and few retrospective studies[10]. From available literature it was only Heinonen who did follow up study on patients with didelphys uterus[2]. He evaluated the long-term consequences, and reproductive performances of 49 women with didelphys uterus that were followed up to 6.3 years[2]. In his study he found that recurrent miscarriage rate was 21%, ectopic pregnancy rate of 2%, fetal survival rate of 75%, prematurity was 24%, and IUGR was 24% and caesarean section rate of 84%[2].

The fertility of women with didelphys uterus is shown to be better than those with other MDA but lower than those with normal uterus[10]. Pregnancy in didelphys uterus is associated with increased risk of spontaneous miscarriage, intrauterine growth restriction and preterm delivery[10]

Pregnancy in a didelphys uterus is therefore a high risk pregnancy and should be managed as such. Early dictation of such cases is of great importance in management of these patients to avert complications. The uses of some of the investigative tools are restricted because they are invasive and cannot be used in pregnancy when most of the cases of didelphys uterus are diagnosed. Use of 3D ultra sound is as reliable as laparoscopy or hysterosalpingography[11], and it can be used during pregnancy. A sensitivity of 97%, specificity of 96% has been recorded for Mullerian anomalies[12]. Where available, a 3-D ultrasound should be used in assessing gynecological infertile patients. It will held in early diagnosis of MDA including didelphys uterus. In the absence of 3-D ultrasound, 2-D ultrasound should be used; this could demonstrate double uterus in the case of didelphys uterus. In the case reported above, patient did not have any form of ultrasound throughout the pregnancy. If she did double uterus would have been identified.

Complete duplication of the uterus and the cervix (uterine didelphys), may prevent descent of the fetal head later in pregnancy or obstruct labour by the non-pregnant horn[13]. In our reported case, the antenatal period was said to be uneventful and fetal lie and presentation were normal however, there was poor progress of labour despite adequate uterine contractions. The station was minus 1 at full cervical dilatation. This might probably be due to the non-pregnant uterus in the pelvis preventing the descent.

Conclusion:

Pregnancy in a didelphys uterus is a high risk pregnancy. Early diagnosis by non-invasive means like 3-D ultrasound is very important in the management of such patients. Patients with double vaginal orifices on routine vaginal examination should be referred to a specialist for further evaluation and proper diagnosis. Those with didelphys uterus should be managed by gynecologist with experiences in such cases; this will allow for planned ante-natal care and delivery when they become pregnant. Close monitory during antenatal period with serial ultrasound is of great importance. The time and mode of delivery should be discussed with the patient during the antenatal period to avoid unnecessary complications.

Author's roles

All authors contributed to the report's design, discussion and conclusion

Consent for publication

Written informed consent was obtained from the patient for publication of this case report. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

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Conflict of interest

There was no conflict of interest

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