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A CASE REPORT OF UTERINE DIDELPHYS WITH GOOD OBSTETRIC OUTCOME

SMITHA ELIZABETH JACOB
Department of Obstetrics and Gynaecology, CHRISTIAN MEDICAL COLLEGE

Abstract : Uterine didelphys is the least common among Mullerian duct anomalies. This case report describes a case of uterine didelphys with septate vagina with two pregnancies carried to term and delivered by caesarean without any other complications.

Keyword : Uterine didelphys, Caesarean section, Mullerian anomaly

Introduction : Uterine didelphys is caused by complete failure of Mullerian ducts to fuse leading to two separate uteri and two cervices. Uterine anomalies occur in 2 to 4 % of women with normal reproductive outcome (1,2). Most of the women with uterine didelphys are asymptomatic, but few present with hematocolpos, hematometrocolpos, dyspareunia or renal anomalies. Long term follow up of 49 cases of uterine didelphys showed that fertility was not impaired in these women (3). The obstetric outcomes in uterine didelphys were generally favourable and there was no association with genital neoplasm (3,4).

Case report :

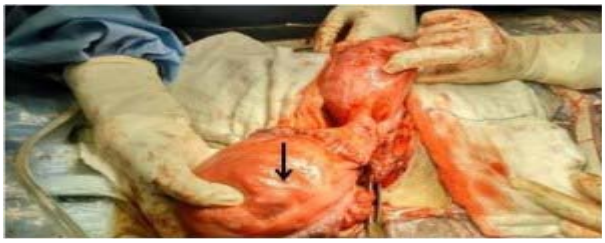
She had no menstrual complaints or dyspareunia. In her first pregnancy antenatal period was uneventful. At 39 weeks of gestation she was admitted with complaints of pre labour rupture of membranes. Per speculum examination revealed two cervices and two vagina. Oxytocin augmentation was started and repeat per vaginal examination showed cervix was 0.5 cm long and 2 cm dilated. She was posted for emergency caesarean section for non-reassuring foetal status and intraoperatively she was found to have uterine didelphys with normal tubes and ovaries and pregnancy in the left side. Baby was 2.9 kg with APGAR 9 and 9. Her subsequent and current pregnancy had uneventful antenatal period with admission to labour room at 38+6 weeks with risk factors of previous LSCS and uterine anomaly with complaints of labor pains. Per abdomen examination : Uterus was term size, pfannensteil scar of previous LSCS well healed, cephalic presentation, clinically 3 kg baby, liquor adequate, contractions lasting 15 seconds every 5 mins. No scar tenderness. FHR was 130/min. Per vaginal examination : There was a complete vaginal septum. Cervix on the right side was 1 cm long and 2 cm dilated with intact menbranes, vertex at -3 station. She was posted for emergency LSCS and delivered 3 kg girl baby with APGAR 9 and 9. Intra operatively pregnancy was found to be in the right side, tubes and ovaries were normal. She underwent sterilisation also. Postoperative period was uneventful.

Discussion :

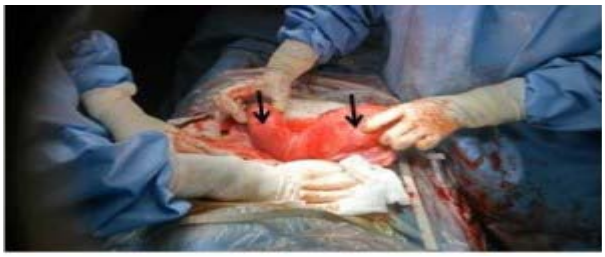
Embryology : Uterine didelphys is caused by complete failure of Mullerian ducts to fuse leading to duplication of mullerian structures leading to two separate uteri and two cervices. A longitudinal vaginal septum is also present in 75% of the cases. Mullerian ducts develop with Wolffian duct and so uterine anomalies can be associated with renal anomalies. Clinical presentation : Most of the women with uterine didelphys are asymptomatic, but few present with hematocolpos, hematometrocolpos, dyspareunia or renal anomalies. Vercellini et al found unilateral hemato- or pyocolpos in 66%. Left-right asymmetry may be induced before organogenesis, establishing differences in morphogenesis on the left and right sides of the embryo (5). Thus incision of the longitudinal vaginal septum may be required for obstructed hemivagina or dyspareunia. Uterine didelphys and renal anomalies : Herlyn-Werner-Wunderlich (HWW) syndrome is a rare congenital disorder of the Müllerian ducts in which there is triad of uterus didelphys, obstructed hemivagina and unilateral renal agenesis (6,7). It is also called OHIVIRA – obstructed hemivagina and ipsilateral renal anomaly syndrome (8). Heinonen et al found obstructed hemivagina in 18% of patients in a longterm followup of 49 cases of uterine didelphys (3). Uterine didelphys and infertility : A study on 3,811 infertile women by Siam S et al showed Mullerian duct anomalies in 7.4% of women of which only 1.1% had uterus didelphys (9). Thus women with untreated uterine didelphys have better fertility compared to other mullerian duct anomalies but lesser when compared to women with normal uterus (3,4,10). Uterine didelphys and abortions : A systematic review by Chan YY et al showed that canalisation defects showed significant increase in first trimester miscarriage whereas there was no significant difference when women with unification defects and normal uterus were compared (11). Three studies comparing unification

defects with normal uterus revealed doubling in the risk but the result was not statistically significant (11). Uterine didelphys and cervical incompetence : Uterine didelphys is usually not associated with cervical incompetence and unless it is history, ultrasound or physical examination indicated, cervical cerclage is not required (3,10,12). Uterine didelphys and preterm deliveries: Grimbizis et al showed that didelphys uterus and unicornuate uterus have term delivery rates of ~45% (4). Retrospective cohort study of patients from 2005 to 2012 by Fox et al included 158 patients with a singleton pregnancy and a uterine anomaly showed preterm birth rate (<37 wks) in uterine didelphys was 33.3% (13). Uterine didelphys and metroplasty: Metroplasty achieves unification of two endometrial cavities in a divided uterus (bicornuate or didelphys) (14). In a study of 146 women with bicornuate, septate, or didelphic uterus, 30 of whom were matched, no increase in the number of living children was found after metroplasty in the matched group (15) . Patients with uterus didelphys have satisfactory obstetric histories and are unlikely to require correction (16). Several experts believe, however, that existing data do not support repair of a didelphic uterus to improve pregnancy outcome. Uterine didelphys and IUGR : Retrospective study by Fox et al showed rate of birth weight <10th percentile in 50% and birth weight less than 5% in 33.3% in women with uterine didelphys (13). Uterine didelphys and malpresentations and caesarean section : Though most of the malpresentations occur in normal uteruses, uterine anomalies are associated with increased risk of malpresentation. In a study of 26 cases of uterine didelphys breech presentation occurred in 43% and cesarean section was performed in 82% of the cases (17). Uterine didelphys and rare reports : The true incidence of uterine rupture is not known though there are case reports (18). There are also case reports of twins and triplets in didelphic uterus (18,19). Abnormal placentation and abruption is also reported (18,19).There is a case report of uterine torsion postpartum (20) There was no association with genital neoplasm (3,4). Most of the data on the clinical significance and outcomes of this uterine anomaly are based on small retrospective, observational, or case studies. The results of these studies are of mixed significance due to low incidence of uterine didelphys in the population and the small numbers. Hence further studies are required.

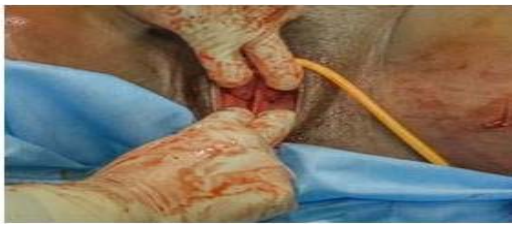
Pictures:



Picture-1: Pregnancy in the horn marked by arrow



Picture-2: Posterior view of didelphys uterus, both uteri marked with arrows.



Picture-3 : Vaginal septum

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