CONTRACEPTION FAILURE DUE TO UTERINE DIDELPHYS

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Abstract

Background Methods Results Conclusion

We present the case of an unsuspected uterine didelphys in a 28-year old woman who has had three previous caesarian sections after which an intrauterine contraceptive device was inserted. She, however, got pregnant again, was evacuated and the IUCD was removed. Persistence of the pregnancy symptoms informed a pelvic scan which confirmed a viable early intrauterine pregnancy with a suggested coexisting fibroid in the pouch of Douglas. A caesarian section was performed at term and a live female infant was delivered. Detailed scrutiny during caesarian section confirmed another uterus with its appendages on the right within the pouch of Douglas, separate from the gravid uterus on the left. This makes uterine didelphys as the probable cause of the contraceptive failure.

Key words: u*terine didelphys pregnancy, caesarian section, ultrasound, contraceptive failure*

Introduction

Uterine didelphys is a congenital malformation of the female genital tract which results from non-fusion of the Mullerian ducts. Though the etiology is unknown, prenatal exposure to diethylstilbestrol has been implicated[1]. It is often asymptomatic and is regularly overlooked in spite of the fact that its anatomical duplication naturally could also present with functional aberrations. It is often associated with urinary tract abnormalities[2].

We describe the presentation of a congenital malformation whose delayed diagnosis led to an unusual case of contraceptive failure and more bizarrely an induced abortion failure

Case Report

Mrs A.Y is a 28-year old Gravida 4 Para $3+^{0}$ patient was referred to the antenatal clinic at a gestational age of 16 weeks from the family planning clinic as a case of failed contraception. She had a Copper bearing intrauterine contraceptive device (IUCD) inserted 18 months prior to presentation but 'missed her periods' 14 months later. She reported at the family planning clinic where a pregnancy test performed was positive and the IUCD tail was found in situ. She went to a private hospital where the IUCD was removed and a uterine evacuation was done using manual vacuum aspiration. She however continued to feel pregnant and a repeat pregnancy test using beta human chorionic gonadotropin (HCG) assay was positive. An abdomino-pelvic ultrasound scan confirmed an intrauterine pregnancy at 12 weeks gestation with an ill-defined heterogeneous mass in the pouch of Douglas. This was diagnosed as a fibroid. Past obstetric history revealed that she had had 3 previous caesarean sections, the last being at this facility.

The operation notes at the last caesarean section noted an oblong shaped uterus with a congenital absence of the left cornu, fallopian tubes and ovary.

The pregnancy continued uneventfully to term when she was delivered via a 4th caesarean section. At surgery, a gravid uterus with left ovary and fallopian tubes was seen. The right ovary and fallopian tube were not seen. Further exploration revealed a completely separate oblong shaped right uterus with its appendages normally situated in the pouch of Douglas. A live female infant, with 3kg birth weight was extracted from the left uterus. Both uteri were lifted out from the peritoneal cavity and the left uterine incision was repaired. The kidneys were palpated and appeared grossly normal bilaterally. The operation was completed routinely and post-operative recovery was uneventful. On the 3rd post-operative day, a speculum examination of the vagina revealed a prominent uterine cervix on the right with a less prominent cervix about 1 cm long, almost flush with the left vaginal fornix postero-lateral to the prominent cervix. The vagina was normal without any intervening septum.

Both mother and child were discharged home on the 5th post operative day with full explanation of the likely cause of the failure of the contraceptive and abortion attempts. She was seen on postnatal visit and did an intravenous urography to exclude associated congenital anomalies. She opted for Norplant insertion after contraception counseling.

Discussion

Proliferation of the two Mullerian ducts, midline fusion of their lower 2/3rd and degeneration of the intervening medial wall allow the formation of two fallopian tubes, a single uterus and cervix. The caudal section forms the sino-vaginal bulb whose interaction with portions of the urogenital sinus will form the vagina. When the midline fusion of the Mullerian duct fails or the degeneration of the midline wall fails to occur, varying degree of anomaly results ,the most distinct being uterus didelphys[3]. This condition may go unrecognized, except when the lack of communication between the two uterine cavities and the exterior via the cervix or vagina allows a hematometra or hematohemicolpos to occur[3]. The reduction in total uterine size allows recurrent abortion rates to reach over 30%. This may be the first indication of a uterine anomaly. Breech presentation occurs in over 40% of term pregnancies, thus increasing the rate of abdominal deliveries[4]. During labor, it is possible to examine the wrong cervix to assess progress. Also as the non gravid uterus remains a pelvic organ, it may prevent the fetus from engaging and thereby increasing the possibility of operative delivery[3,5]. Caesarian section rates approach close to 80% in this circumstance[4]. In this patient, the first two caesarean sections were for failure of cervical dilatation. At the third operation, pelvic adhesions were noted and only the right appendages were seen. A more meticulous exploration of the pelvis should have detected the second uterus. The failure of intrauterine contraceptive device and subsequent failure of manual vacuum aspiration should normally arouse suspicion of this pathology. The non observance of a second cervix on previous vaginal examinations and non discovery at the three previous laparotomies could be an indication of relative inexperience of the surgeons. If the pathology had been suspected or seen, investigations that are more thorough should have

been carried out after the third surgery. These would include ultrasound scan, postpartum hysterosalpingography, magnetic resonance imaging (MRI) or computerized tomography (CT) scan[6]. The suspected fibroid diagnosed by the ultrasound scan in this patient, is most likely the right uterus found at surgery. Assessment of the kidneys is mandatory to exclude associated anomalies[2, 5]. Contraceptive failure with the intrauterine contraceptive device had not usually been explained from the perspective of a reserve uterus and though rare should be considered in this uncommon condition.

References

1. **Laitman CJ**. DES Exposure and the Aging Woman .Mothers and Daughters. *Current Women's Health Reports*.2002; 2:390-393
2. **Woolf RB, Allen WM**. Concomitant malformation. Frequent simultaneous occurrence of congenital malformations of the reproductive and urinary tract. *Obstet Gynaecol*.1953;2:235
3. **Myerscourgh PR**. Dystocia associated with malformations of the uterus and vagina. In: Munro Kerr's Operative Obstetrics.Myerscough PR (ed) 10th edition Balliere Tindall Publishers London, 1982:187-201
4. **Heinonen PK**. Uterus didelphys –A report of 26 cases. Eur. J. *Obstet Gynaecol Reprod.Biol.* 1984;17:345
5. **Edmonds DK**. Normal and abnormal development of the genital tract. In: Dewhurst's Textbook of Obstetrics and Gynaecology for Postgraduates. Whitfield CR (ed) 6th edition. Blackwell Sciences Pub. Ltd. 1999:1-11
6. **Olpin JD, Heilbrun M**. Imaging of Mullerian duct anomalies. *Clin Obstet Gynecol*. 2009;52(1):40-56

Fig 1a

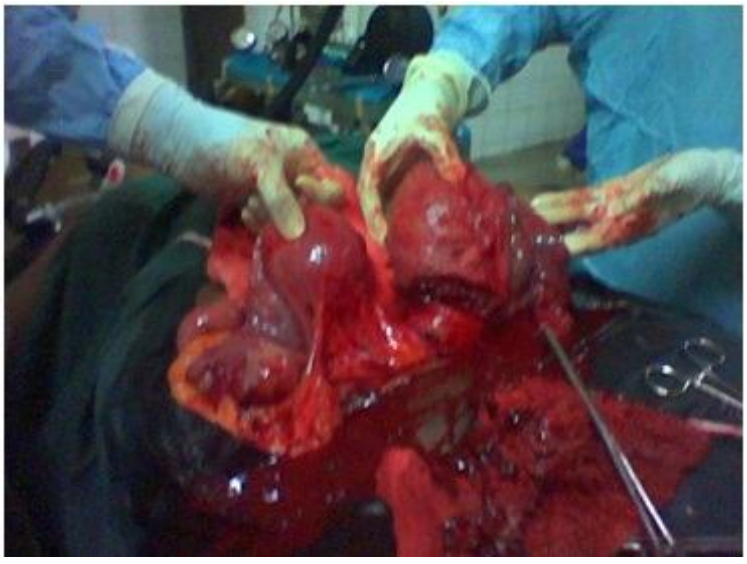

Figure 1b

Figures 1a & b showing two separate uterine halves with caesarean incision displayed on the left half lower segment