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ACHIEVING PREGNANCY IN A CASE OF BICORNUATE UTERUS WITH ABSENT LEFT KIDNEY WITH HISTORY OF RESECTION OF LONGITUDINAL VAGINALSEPTUM: A CASE REPORT

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Abstract

The incidence of uterine malformations in general population is estimated to be about 3-5% and 5-10% in women with poor reproductive outcome. Fertility and evolution of pregnancy depends on the type of uterine anomaly. Many of them are asymptomatic but it is important to consider this diagnosis in vaginal septum ,hematocolpus ,recurrent miscarriages - early and late, preterm labours, malpresentations, intrauterine growth restrictions and menstrual disturbances like menorrhagia, dysmenorrhea. Septate and arcuate uterus represents approximately 75% of malformations while bicornuate, didelphys and unicornuate comprise the remaining 25%. Cases of pregnancy in a bicornuate uterus are still of sufficient interest and rarity to justify being reported. We report a case of bicornuate uterus with absent left kidney who presented as hematocolpos due to longitudinal vaginal septum in 2017.A diagnostic hysterolaproscopy with resection of septum was done patient again followed up with infertility in 2019. Patient then conceived on follicular monitoring and planned relation with luteal phase support.

Keywords: Bicornuate uterus, Pregnancy, Uterine malformation

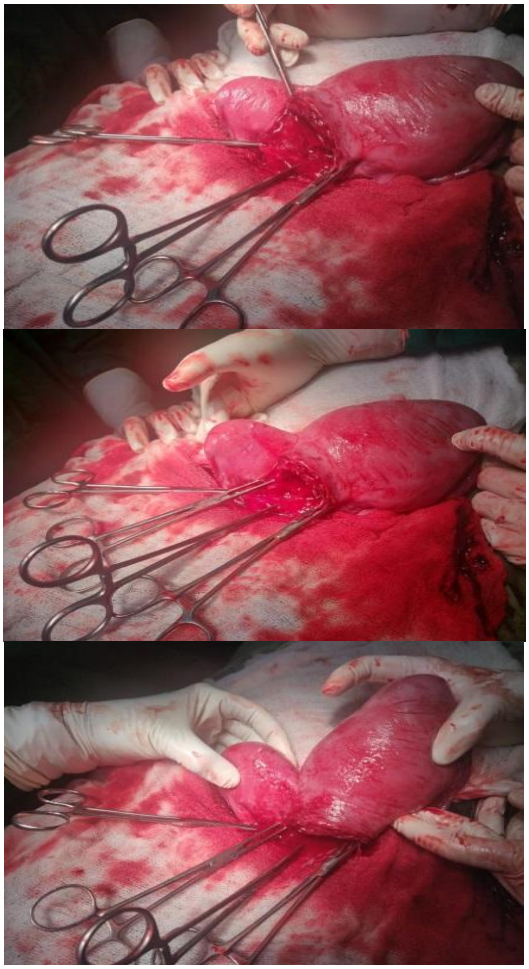
Introduction

Abnormal fusion of mesonephric duct (mullerian duct) during embryonic life results in a variety of congenital uterine malformations.(1) The incidence of uterine malformations in general population is estimated to be about 3-5% and 5-10% in women with poor reproductive outcome.(2)(3)(4) Precise diagnosis requires diagnostic modalities like ultrasonography (USG), magnetic resonance imaging hysterosalpingogram, hysteroscopy and laparoscopy. Pregnancies occurring in the malformed uterus are relatively rare, and many of them are asymptomatic, but should be suspected in patients with recurrent miscarriages and malpresentaions. Airoldi et al. reported that high-risk obstetric intervention did not significantly increase the fetal survival rate for uncorrected uterine anomalies.(5) Reproductive outcomes can be improved with early diagnosis and close follow-up with better treatment.

Case report;

A 21 year old married female presented to the outpatient department of Cama and Albeless Hospital Grant Medical College in June 2017 with complain of scanty menses and cyclic abdominal pain. After initial clinical and local examination a gentle per speculum examination was done which showed bulging membrane in vagina with dark collection behind. A sonography abdomen pelvis was done which revealed two separate uterine bodies of almost equal size right 5.3*2.2cm left 5.3*2.6 cm and a large collection of 10*4*6 cm(136cc) noted in vagina s/o hematocolpos. B/L ovaries normal and non-visualisation of left kidney in left renal fossa. An MRI abdomen was performed which gave additional information of absent left kidney with compensatory hypertrophy of right kidney. An complete longitudinal vaginal septum extending from left poster lateral vaginal wall to right anterolateral vaginal wall dividing vagina into small left anterolateral compartment and large right poster lateral compartment. Septum measures 8 mm in thickness. A diagnostic laparoscopy with hematocolpos drainage with resection of vaginal septum was done in June 2017. Laparoscopic findings include bicornuate uterus both ovaries fallopian tube were normal. Patient was discharged with advice of follow up and to avoid pregnancy for few days till the resected septal area heals .A post-operative usg was done which showed resolved hematocolpos and bicornuate uterus. Patient reported again after two years in 2019 with complain of inability to conceive a detailed infertility work up was done with routine blood investigations and husband semen analysis and found out to be normal. Patient was then planned a follicular study with planned relation and luteal phase progesterone. Patient conceived and obstetric ultrasound was performed which showed

single live intrauterine gestation 6 week in left horn April 2019. Patient was maneged routine antenatal care with 17 hydroxy progesterone intramuscular depot injections weekly till 36 week when she had an emergency ceasarian section because of preterm leak with oligohydroamnious and breech presentation. She delivered a healthy 1.95 kg baby on 13th nov 2019.



Discussion

The mullerian ducts originate from the coelomic epithelium at 5 weeks of embryonic age and fuse with the uro-genitial sinus at 8 weeks. Abnormalities in the formation and fusion of mullerian ducts can result in a variety of abnormalities of uterus and vagina. Failure of development of mullerian duct is associated with failure of development of uretric bud from the caudal end of the Wolfian duct. Thus, an entire kidney can be absent on the side ipsilateral to the agenesis of a mullerian duct.(6) An effort to determine a genetic relationship in the development of disorders of the mullerian ducts has shown a polygenic or multifactorial inheritance. Rock and Breech have suggested a modification of American Fertility Society classification of uterovaginal anomalies that comprises four groups based on embryological considerations.(6). Though Golan et al. have emphasized on the need for cervical encirclage in patients with uterine anomalies, in present case it is not done rather patient is put on progesterone support and also the cervical length USG was normal and there was no funneling.(7) Ravasia et al. described the incidence of uterine rupture in a cohort of woman with mullerian duct anomalies who attempted vaginal birth after caesarean delivery (VBAC).(8) They concluded that vaginal delivery is common among women with mullerian duct anomalies who attempt VBAC but the rates of uterine rupture and other complications are high (8% compared to 0.61% without mullerian duct anomalies). The authors proposed several mechanisms for the greater incidence of uterine rupture in this population: abnormal development of lower uterine segment, previous scar similar to a vertical or classical incision and the possibility of abnormal traction on the uterine scar during labour. Petrozza et al. attempted to determine inheritance pattern in patients with uterine anomalies and concluded that the inheritance is most likely a polygenic mechanism and not inherited commonly in a dominant fashion.(9) The most likely cause of IUGR and intrauterine fetal death in the instant case could be due to implantation of the placenta in the myometrium of the partial bicornuate uterus where only the upper portion of the uterus dips into the chamber.

Conclusion

Congenital uterine malformations are relatively common. Clinicians must suspect uterine malformations in cases with hematocolpos, recurrent miscarriages and adverse obstetric outcomes. Urinary tract imaging should be performed because of frequent associated anomalies. A bicornuate uterus does not always lead to complications and may carry a pregnancy to term. A prenatal preconception diagnosis can help to ensure proper care and prevent complications. Regular antenatal care and vigilance can contribute to better obstetric outcome in such patients Pregnancy in a uterus with mullerian anomaly deserves early diagnosis of the anomaly, and meticulous care in pregnancy and delivery to avert the associated adverse outcomes. Clinicians should have high index of suspicion of uterine anomaly to make early diagnosis of mulerian anomaly.

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