DOUBLE UTERUS: A CASE REPORT

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ABSTRACT

We report a case of double uterus in a 32 years old lady, G7P5 having previous one C-section who presented with 35 weeks pregnancy along with severe scar tenderness. Clinical examination and ultrasonography revealed 35 weeks fetus with breech presentation and severe fetal tachycardia. On pelvic examination, she had long uneffaced cervix with fresh bleeding. Emergency cesarean section was performed. An alive premature female baby was delivered through incomplete rupture of uterus and was sent to nursery. Patient had two separate uteri with separate adnexae. On fifth post operative day, pelvic examination in the OT was performed which revealed two cervices with single vagina. On the same day complete renal scan excluded any associated renal pathology.

Key words: *Uterus Didelphys, Double uterus, Uterine Malformations.*

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INTRODUCTION

Uterine malformations consist of a group of different congenital anomalies of the female genital tract system. The prevalence rate of uterine malformations in general fertile population is 0.001 to 10%, in infertile population it is 3.5% and in patients with recurrent miscarriage it is 13%.[1-3]

The uterus is formed from fusion of two paramesonephric ducts, called Mullerian ducts at around 8-16 weeks of fetal life. The process involves three main stages[4]

I: ***Organogensis*****:** the development of both Mullerian ducts.

II: ***Fusion*****:** the lower Mullerian ducts fuse to form the upper vagina, cervix and uterus; this is termed lateral fusion. The upper cranial part of the Mullerian ducts will remain unfused and form the fallopian tubes.

III: ***Septal absorption*****:** after the lower Mullerian ducts fuse, a central septum is left which starts to reabsorbs at 9 weeks eventually leaving a single uterine cavity and cervix.

Failure in organogenesis leads to incomplete development of one or both Mullerian ducts resulting in agenesis, uterine hypoplasia or a unicornuate uterus. The *lateral fusion defects* (incomplete fusion of caudal portion of Mullerian ducts) results in uterus didelphys, bicornuate uterus or arcuate uterus while *vertical fusion defects* (fusion of Mullerian ducts with urogenital sinus) present as imperforate hymen, transverse vaginal septum, oblique vaginal septum or absence of cervix. Reabsorption failure results in uterus with partial /complete septum.[5]

The *American Fertility Society* classifies uterine malformations into seven separate categories (Table I).[6] Their frequency distribution is septate in 34%, bicornuate in 29%, didelphic in 11%, arcuate in 7%, unicornuate in 5% and hypoplastic/aplastic and other forms in 4% cases.[7]

AMERICAN FERTILITY SOCIETY CLASSIFICATION OF UTERINE MALFORMATIONS[6]

Class	Uterine Malformation
I	Hypoplasia/ uterine agenesis
II	Unicornuate uterus
III	Uterus didelphys
IV	Bicornuate uterus
V	Septate uterus
VI	Arcuate uterus
VII	T-shaped uterus resulting from the use of DES

Table I

We report a case of double uterus in a 32 years old lady who previously had five successful pregnancies with previous one c/section and remained undiagnosed till she presented to us with breech presentation and imminent rupture.

CASE REPORT

A 32 years lady, G7P5 with 35 weeks pregnancy having previous one c-section presented in emergency

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to labour room of Liaqat Memorial Hospital Kohat. On examination she had severe scar tenderness with fetal tachycardia. On pelvic examination, the cervix was uneffaced with fresh bleeding. Her emergency c-section was done. An alive premature female baby with meconium stained liquor delivered through incomplete rupture. This patient had an irregular menstrual cycle since beginning and suffered from primary infertility for 4 years. She conceived her first pregnancy spontaneously and delivered normally. She conceived her second pregnancy after 3 years, which ended up in miscarriage at 6 months. After this spontaneously she conceived three times but all were full term breech deliveries at home with stucked head and intranatal deaths. In her sixth pregnancy she consulted doctor and was advised c-section for breech presentation. She delivered an alive baby but double uterus had not been mentioned in the previous surgical notes. She conceived in the same uterus this time spontaneously and double uterus was diagnosed incidentally. It was completely separate uterus with attached tube and ovaries. Double cervices were also found on her fifth post operative day.

DISCUSSION

In this case report, the patient had a primary infertility of four years, followed by seven successful pregnancies with variable outcomes. She had one miscarriage, 3 neonatal deaths and 3 alive births. Uterine anomalies are not only an important cause of infertility but are also associated with normal as well as adverse reproductive outcomes.[3] There are higher rates of reproductive loss, preterm delivery, breech presentation in patients with uterine malformations along with complications that increase obstetric intervention and perinatal mortality.[8]

The septate uterus is the most common uterine anomaly and is associated with higher miscarriage rate up to 33.8%,[9,10] which is due to scanty vascular supply of septum. Surgical removal of the septm has significant impact on improving reproductive outcome.

The Bicornuate uterus is the 2nd common anomaly results from partial non fusion of the Mullerian ducts[7]. Unlike previous studies, Raga F et al[9] has reported a favourable reproductive outcome in bicornuate uterus with chances of having a term pregnancy of 60% and a take-home baby rate of 62.5%. The Bicornuate uterus probably does not affect fertility unless recurrent miscarriages are diagnosed. Surgical reconstruction can be performed in patients of bicornuate uterus with recurrent miscarriages. Abeera Choudry reported successful pregnancy outcomes in cases of septate and bicornuate uterus in Pakistan.[11]

The double uterus (didelphys) has a poor reproductive outcome with a 20-30% chance of carrying pregnancy to term. Due to this unfavourable outcome rate, surgery should be recommended. Didelphy uterus should always be considered in cases of severe dysmenorrhoea and chronic pelvic pain; of the failure of intrauterine contraceptive devices; of a symptomatic or asymptomatic pelvic mass that is inseparable from the uterus; where termination of pregnancy has been unsuccessful; and of cervical incompetence.[12]

Like Didelphys uterus, unicornuate uterus also has a poorer obstetric outcome.[9,13] The unicornuate uterus has the worst reproductive outcome secondary to abnormal uterine vasculature and decreased muscle mass. Women with pregnancy in Unicornuate uterus should be taken as high risk. Intervention such as resection of rudimentary horn and cervical cerclage improves obstetrical outcome.

The arcuate uterus has no impact on reproduction. It is mild indentation of endometrium at fundus and is compatible with normal delivery and pregnancy.[14]

The congenital anomalies of uterus are usually associated with congenital renal anomalies as the embryological development of the female reproductive system is closely related to the urinary system development. Both uterine and renal anomalies may occur simultaneously in up to 25% of these patients. Other anomalies associated with uterine malformations are in GIT (12%) and musculoskeletal system (10-12%).[5,15]

Coexisting renal tract abnormalities are frequent in patients with unicornuate uterus and are dominated by unilateral agensis, homolateral to the side of rudimentary horn.[15]

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CONFLICT OF INTEREST

Authors declare no conflict of interest

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