

Uterus Didelphys with Pregnancy and Recurrent Pregnancy Loss

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Abstract

Didelphy uterus is a very rare Mullerian duct anomaly in comparison to other anomalies and it is an embryological abnormality resulting from complete failure of fusion of the 8mm and Mullerian ducts. Recurrent pregnancy loss was significantly increased in women with uterine anomalies and affecting 2%-5% of couple. Many women have more than one possible etiology causes that could contribute to their pregnancy loss. This report discusses a case of 23 yrs old of didelphys uterus with recurrent pregnancy loss (spontaneous recurrent abortion of 1st trimester pregnancy) married for 2 yrs presented to our MCH center for ANC follow up. An obstetric ultrasound was done on the same day and pregnancy was not detected, but two separate uterine horn and separate cervix seen. Right and left horn well developed and sized 7.1 × 3.2 and 7.1 × 3.8 respectively. Right endometrial strip left side 7mm. A week later she came to repeat an obstetric ultrasound and a single viable of gestation of 5 weeks and 3 days detected at right side of uterine horn. Three week later she came with complaint of vaginal bleeding; an obstetric ultrasound report indicate intact intrauterine gestational suck. On September 9, 2020 she was presented with the same complaint of vaginal bleeding and diagnosed as complete abortion.

Keywords: Uterus didelphys; Recurrent pregnancy loss; Arcuate uterus

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Introduction

Didelphy uterus is a very rare mullerian duct anomaly in comparison to other anomalies [1]. The failure of fusion of the two mullerian ducts results in duplication of mullerian structures. Didelphic uterus has two uteri, two endometrial cavities, and two cervixes [2]. Longitudinal vaginal septum is present in most women with a didelphys uterus [3-5].

Recurrent pregnancy loss is an important reproductive health issue, because it affects 2%-5% of couples [6]. Patients with uterine anomalies have pregnancy losses more frequently in their obstetric history than patients with normal uterus [7-11]. Uterine anomalies are reportedly found in up to 19% of women with recurrent pregnancy loss [12]. 30% of 98 women with Mullerian anomaly diagnosed have cervical incompetence [8].

The highest incidence of preterm labor was noted among women with arcuate uterus and women with arcuate uterus, significantly lower gestational age and birth-weight were observed compared with any other type of adverse outcome [13]. Arcuate uterus

relatively has the highest live birth rate, in contrast septate and bicornuate uterus have significantly reduced live birth [14,15].

Septate uterus is the most common type of uterine anomaly and noted highest incidence of early spontaneous abortion [14]. Abortion rate in septate uterus patients is about double that for bicornuate uterus patients [16]. Unicornuate and didelphys uterus seem to have a similar effect on reproduction, since didelphy uterus seen as asymmetrical duplication of unicornuate uterus [16-18].

All uterine anomalies increase the chance of fetal malpresentation at delivery [19]. The highest cesarean section rate (82%) was in deliveries of patient with uterus didelphy [20-23]. Prevalence of insulin resistance significantly increased in Women with recurrent pregnancy loss when compared with matched fertile controls [18].

In this case report we can discuss a rare case didelphys uterus in women with history of recurrent pregnancy loss, who diagnosed diabetic and on insulin treatment.

Case Report

The patient was a 23-year-old grada 4, para 0 and 3 abortion (spontaneous recurrent abortion of 1st trimester pregnancy) married for 2 yrs presented to our MCH center at July 24, 2020 for ANC follow up and her LMP was at July 1, 2020. An obstetric ultrasound was done on the same day and pregnancy was not detected, but two separate uterine horn and separate cervix seen. Right and left horn well developed and sized 7 × 3.2 and 7.1 × 3.8 respectively. Right endometrial strip was 8 mm and left side 7 mm. A week later at August 1st, 2020 she came for repeat ultrasound and a single viable of gestation of 5 weeks and 3 days detected at right side of uterine horn (**Figure 1**).

She was diagnosed diabetic patient and on insulin treatment. Routine antenatal investigations were done and in normal limit, but FBS was 132 mg/dl. She was advised bed rest, control blood glucose level and progesterone support. Three week later she came with complaint of vaginal bleeding; an obstetric ultrasound report indicate intact intrauterine gestational suck. On September 9, 2020 she was presented with the same complaint of vaginal bleeding and diagnosed as complete abortion (**Figure 2**).

Blood pressure 120/70 mm Hg, pulse 102/min and temperature was in normal range. Pink conjunctiva, Respiratory and Cardiovascular systems were normal. Per abdominally, uterus was not palpable; there was no tenderness, guarding or rigidity. Per vaginal examination confirmed the presence of two cervix

Discussion

The rate of spontaneous abortion was significantly higher in women with uterine anomalies when compared with those normal uterus [9]. Another study by different author [10-15]. Also found obstetric complication, such as recurrent pregnancy loss was high in women with uterine anomalies.

Women with uterine didelphys have a high fetal loss rate with approximately 43% of pregnancies ending in a spontaneous abortion [16]. The same report by Raga et al. [24] of a large retrospective longitudinal study of 3181 patients, demonstrated



Figure 1 US: Transverse view: Didelphic uterus and GS in right side of uterus.

poor reproductive performance in women with didelphys uteri with a higher rate of preterm delivery, spontaneous abortion, and the lowest chance of having a term delivery than the other MDAs .

In contrast a study on Uterine anomalies and pregnancy outcome following resectoscope metroplasty by Zlopasa G et al. women with didelphys uterus hadlow rate of spontaneous abortion and a high rate of term deliveries [25-27]. The two pooled analysis studies by Shuiqing M et al. [28] and Acien [29] were investigated no difference in clinical pregnancy rates and no significant difference in first-trimester miscarriage in women with unification defects (unicornuate, bicornuate and didelphic uteri) when compared with women with a normal uterus [25-29]. A case we have reported had poor reproductive performance.

The highest incidence of first-trimester miscarriage and poor reproductive performance was noted among women with canalization defects, such as septate uterus [19]. The same report by Several authors [10-14,24,29]. That in agreement recurrent pregnancy loss his highest in patients with a septate uterus. In contrast a recent study on reproductive performance of women with uterine anomalies: an evaluation of 182 cases, a complete septate uterus had best fetal survival rate [22].

Raga et al. [24] found that an arcuate uterus had no impact on a woman's fertility. But the study by Zlopasa G et al. [9] identify the highest incidence of preterm labor was among women with arcuate uterus.

In a recent study on cervical cerclage in pregnant anomalous uterus cervical incompetence were found 30% women diagnosed as having uterine anomaly and the highest incidence was found in the bicornuate uterus [8]. Michalas [13] found the same proportion of cervical incompetence (28.4%) in a series study of sixty two women with uterine anomalies but with higher incidence in the group of septate uterus. Cervical incompetence is not usually associated with didelphys uterus and cerclage is not routinely used unless there is a history of cervical incompetence or premature dilation is found on exam during early second trimester [23].



Figure 1 US: Transverse view: Didelphic uterus and GS in right side of uterus.

Many women have been shown to have more than one possible etiology that could contribute to their pregnancy loss [25,26]. A total of 28.9% of women with recurrent pregnancy loss had more than one possible causes [27-29]. A case we have reported has more than one possible etiology that could contribute her to recurrent pregnancy loss which was didelphys uterus and chronic diabetes.

Conclusion

Congenital uterine anomalies are associated with poor reproductive outcome. More than one possible risk factor can causes recurrent pregnancy loss and women who have more

than one possible etiology causes of pregnancy loss were at higher risk. For all women presenting for evaluation of recurrent pregnancy loss, it is good to assess for metabolic disorders and other contributing factor for miscarriage. A case we had reported had more than one possible cause for her pregnancy loss.

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Conflict of Interest

The authors did not report any potential conflict of interests.

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