

Successful Pregnancy in a Case of Bicornuate Uterus with Pre Eclampsia and IUGR – A Case Report

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Abstract: *Uterus didelphys is a condition of lateral fusion defect causing two hemi uteri and cervixes. It constitutes approximately 5% of the mullerian duct anomalies. These malformations are associated with miscarriage, premature labour, premature rupture of the membranes, and malpresentation. Here we present an interesting case of bicornuate uterus with pre eclampsia and IUGR. Interestingly, in our present case report, this woman had single pregnancy in the right uterus and gave birth to a baby by caesarean section. Conclusively, we state that patient with uterus didelphys belong to high risk group and deserve a particular prenatal care. Therefore it is of great importance for the clinician to detect these abnormalities of the reproductive tract in early stage by USG.*

Keywords: Uterus didelphys, müllerian anomaly, uterine malformation, Lower segment caesarean, Septate vagina

1. Introduction

The human uterus is of Paramesonephric in origin. Any degree of failure of fusion of müllerian ducts or subsequent failure of resorption of tissue results in spectrum of clinical manifestations. Uterus didelphys is a condition of lateral fusion defect causing two hemi uteri and cervixes. It constitutes approximately 5% of the müllerian duct anomalies. According to American Fertility society classification of uterovaginal anomalies, uterus didelphys belongs to class IIIB.1.a. It is a lateral fusion defect of the müllerian ducts with symmetrical unobstructed didelphic uterus having complete longitudinal vaginal septum. It is a rare uterine anomaly and according to one estimate, it occurs in 0.1% - 0.5% healthy fertile population [1]. Of all the uterine anomalies, didelphic uterus is associated with successful pregnancy. These malformations are associated with miscarriage, premature labour, premature rupture of the membranes, and malpresentation.

2. Case Report

A 23 year old primigravida presented to our outpatient with 32 weeks of gestation. She got conceived spontaneously. She is a booked pregnancy and is under follow up at another centre. At the time of presentation bilateral pedal oedema is her complaint. Clinical examination revealed thin built female with pallor and bilateral pitting pedal oedema. Vitals revealed stable heart rate with a blood pressure of 160/100. Systemic examination is not contributory. Abdominal examination revealed 28-30 weeks uterus with 30 cm of symphysiofundal height and cephalic presentation. Per speculum examination revealed a full length vertical septum all along vagina (Figure 1) with 2 separate cervixes. P/V examination confirmed the per speculum examination findings and both the os are found to be closed. Routine investigations showed haemoglobin of 9.0 gm/dl and borderline urea and creatinine. Pheripheral blood smear showed microcytic hypochromic anaemia. Urine

examination revealed 2+ albuminuria. Ultrasound examination confirmed the clinical diagnosis of bicornuate uterus with single live foetus of 30±2 weeks age with mild oligohydroamnios in the right horn of the didelphic uterus.



Figure 1: Speculum examination showing thick longitudinal vaginal septum

Further treatment at our centre included in house admission with strict bedrest and appropriate antihypertensive treatment with oral Labetelol and Nifedipine. Patient was also put on high calorie diet in view of IUGR. Injection PROLUTON DEPO 500mg is given weekly. Weekly ultrasound examination for fetal monitoring is done. At 36 weeks of gestation, patient suffered from premature rupture of membranes (PROM). In view of PROM, IUGR with a floating head emergency lower section caesarean section (LSCS) was performed under spinal anaesthesia. Abdomen was opened by Pfannenstiel incision in layers and two horns of uterus was seen with pregnancy in the right horn. On the left side was a non-pregnant uterus, which was lying posterior to the pregnant uterus (Figure 2). A live term female baby was extracted by vertex. Baby cried immediately after birth. Apgar score was 1- 7/10 & 5- 9/10. Placenta with membranes was extracted in toto, no postpartum hemorrhage. Uterus was closed in two layers.

After closing the right uterus, left uterus was of normal size with well-developed fallopian tube and ovary. There was no communication between two horns. Patient had an uneventful post-operative period.



Figure 2: Intra-operative finding of the gravid & the non-gravid uterus

3. Discussion

Mullerian anomaly rate is reported between 0.1 – 1% in general population with significant higher rates associated with infertility and pregnancy wastage. These mullerian duct anomalies are clinically more important because they are associated with impaired infertility, menstrual disturbances and obstetrical complications like obstructed labour. They are also associated with endometriosis and obstructed uterine drainage which may occur in patients with uterus didelphys and unicornuate uterus. In case of single pregnancy in uterus didelphys, literature shows the right uterus having pregnancy predominantly [2]. In uterus didelphys, non-pregnant uterine horn is also subjected to some hormone influences as the pregnant horn [3]. It remains as a pelvic organ posterior and hampers the delivery of the baby. Vertical septum extending into the upper vagina can be identified in up to 75% of the patients by MR Imaging [4]. An important point is that, in all of the patients with obstructed uterus didelphys, renal agenesis was located on the same side as the obstruction. It is worth mentioning that in cases of unicornuate uteri, the renal anomalies that may be associated are also always ipsilateral to the rudimentary or absent horn [5]. This type of anomaly is routinely diagnosed on pelvic examination, USG or HSG, with two separate uteri and widely divergent apices, two separate cervixes and upper vaginal longitudinal septum. Spontaneous abortion rates are reported to range from 32 – 52%; preterm labour from 20 – 45 % and fetal survival rates from 41 – 64%. Only patients who have symptoms like dyspareunia, recurrent pregnancy loss can be surgically managed by Strassmann's metroplasty [6]. According to Jones & Jones, 1/3 rd of patients with double uterus had reproductive problems. The septum should be removed when the patient is not pregnant unless there is a contra indication as there is risk of injuring the urethra, bladder or the rectum.

4. Conclusion

Interestingly, in our present case report, this woman had single pregnancy in the right uterus and gave birth to a baby by cesarean section. However, the mother of the present case did not have history of abortion or premature birth, but she had pain before or during her menstrual cycles. Conclusively, we also state that patient with uterus didelphys belong to high risk group and deserve a particular prenatal care. Therefore it is of great importance for the clinician to detect these abnormalities of the reproductive tract in early stage by USG. It is now convenient to draw the attention of practicing obstetricians towards a mistake frequently made during routine examination in the course of labour; that is to examine the wrong cervix for dilatation when ignorant about such abnormality.

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