

Successful Pregnancy Outcome in Woman with Didelphy Uterus Diagnosed at Emergency Cesarean Section, Ethiopia, 2018

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Abstract

Background: Mullerian duct anomalies (MDA) are among a rarely occurring congenital conditions potentially complicates woman's ability to conceive and result in normal pregnancy, labor and delivery. This case report helps health provider in broadening scope of anticipation of variety of obstetric and gynecologic cases as differential diagnosis when assisting woman during labor and delivery especially in facilities where imaging resource are limited and obstructed or prolonged labor is diagnosed. With this purpose this case shares certain manifestations of didelphy uterus during labor, and discusses feature of MDA, diagnosis, complication and its outcome.

Patients and Method: This case report assesses the clinical manifestations of woman with didelphy uterus during labor

Résulta: This case report woman with double uterus who had successful pregnancy and cesarean delivery. The two uteri were laid at right lateral and left lateral side, and fetus was extracted from right one, which was anterior part prior to extraction. The two uteri have separate fundus, and have only one fallopian tube in the left sided uterus. Both uteri have separate internal cervical oss, but share common external oss.

Conclusion and Recommendation: Though mullerian duct anomalies are rare, health provider dealing with woman with prolonged or obstructed labor is expected to incorporate suspicion of didelphy uterus even in term pregnancies unless exclusion is made by certain protocols.

Keywords: Mullerian Duct Anomaly; Double Uterus; Emergency CS; Obstructed Labor

Introduction

Uterine anomalies, also termed as mullerian duct anomalies (MDA) are uncommon, but often treatable cause of infertility. MDA may become clinically evident at different ages depending on their specific characteristics and associated disorders. Presence of the fact that normal pregnancy can occur in women with MDA, it makes difficulty to estimate the exact prevalence of the anomalies [1]. Literatures show different figures of prevalence. According to study conducted in 2011, which studied series of cases for five years, the overall prevalence of uterine malformation was estimated approximately 4% in women of reproductive age group [2]. Another systemic review in

conducted in 2008 showed that the prevalence of uterine anomaly was 6.7% in the general population. This study adds up the prevalence of uterine anomalies varies in some conditions and is nearly 7.3% and 16.7% prevalent in women with infertility and with repeated miscarriage respectively [3].

A review of study aimed in determining diagnostic classification and prevalence showed that the prevalence of didelphi uterus in women of reproductive age was 0.1%, and slightly increased to 0.2% in women diagnosed to have infertility [3]. Though similar incidence was estimated in general population in a retrospective longitudinal study conducted in Valencia hospital Spain, the incidence was higher (0.7%) in infertile women than reported in the previous study [4].

Classification MDA is also bears some challenge as there is difference in staging of the anomalies. American fertility society classifies MDA in to six types. Type I, "Müllerian"agenesis or hypoplasia, Type II: Unicornuate uterus, Type III: Uterus didelphys, Type IV: Uterus bicornuate, Type V: Septate uterus, Type VI: Diethylstilbestrol-related anomalies. Uterine didelphys, or double uterus, occurs when the two müllerian ducts fail to fuse, thus producing duplication of the reproductive structures. Uterine dideplhy has two types i.e. stage a, when the two uteri have single cervix and stage b, a condition which involves duplication of cervix [5].

Women with MDA are known to have higher incidences of infertility, repeated first trimester spontaneous abortions, fetal intra-uterine growth retardation, fetal malposition, malpresentation, pre-term labour and retained placenta as explained by American fertility society and others[5,6,7. One study suggests that one in every four women (25%) with didelphi uterus. experiences certain reproductive related problem such as abortion, premature rupture of membrane or else Beside to obstetric complication in pregnant women, non-pregnant women can develop endometriosis because of retrograde menstruation by which can happen when menstrual flow from one uterus may have access to entrance to the other uterus. Menoragia, dysparunia, leucorrhea are other gynecologic complaints manifested in women with didlphy uterus [1,8-10].

This report will benefit health care providers to have wide range view of obstetric clinical manifestation which can be seen in the presence of double uterus so that it alerts need for integration of reproductive history, clinical pictures and other obstetric manifestations, with suspicion of anomalies especially in resource limited areas where pregnant has not access to scientific advent as ultrasound especially when obstructed or prolonged labor occurs.

This case report presents obstetric history, intra operative finding and photographic image of didelphic uterus in 24 years old primi-gravida mother undergoing emergency CS for the indication of obstructed labor.

Results

Patient history and admission condition: A Primi gravida laboring woman with gestational age (GA) of 37wks+6 days is admitted to a general hospital after she is referred from nearby rural health center in surrounding district with diagnosis of prolonged labor. She was in labor for the past 18 hrs and had no ANC follow-up. Her general appearance looks existed, her vital signs were in normal range. In abdominal examination, fundal height was 36 wks, oblique lie, FHB 118, has round abdomen with laterally irregular shape. Ultrasound also confirmed it is singleton, head tilted to the right, with estimated fetal weight of 3200 gm. Per vaginal examination, dry vaginal canal, cervix was 6 cm dilated, station - 2. Decision was made for emergency cesarean section for the diagnosis of obstructed labor secondary to shoulder presentation. Communicating her condition and informed consent securing the woman is transferred to Operation room. After completing all necessary pre operative care, operation was started with spinal anesthesia.

Intraoperative procedure and finding

When abdominal wall incision complete and reach to uterine wall, there was relatively uncommon upward pressure is felt making abdominal incision tough to work. Lateral extension of wall is made to gain further space. After making adequate incision to the uterus, the baby head was found in lower lateral aspect of the uterus, and the baby was delivered with simple and uncomplicated extraction.

Presence of double uterus was seen immediately after extraction of the baby when size of the gravid uterus drastically decreases. The uteri were situated at anterior and posterior prior to extraction of the fetus, and the one holding the fetus was at the anterior aspect occluding the other. Immediately after extraction of the baby the uteri were slightly tilted to the direction of right lateral side, the one holding the fetus and to left lateral side, the empty uterus (Figure 1 A).

The two uteri had clearly demarcated separate fundus, body and some parts in the lower segment. Looking at the upper uterine part (fundus), there are two fallopian tubes running at left and right side in the right uterus, but there was only left side fallopian tube was attached to corneal area of the left side uterus (Figure 1, B). The two uteri were attached together in the lower edge nearly at the level cervix and have separate internal os with common external cervical os. And the fusion occurred nearly at the edge of cervical os (Figure 1).



Figure 1: Intraoperative Photographic image of didelphy uterus from anterior aspect (A) and top view (B).

Investigations

All routine baseline laboratory investigations were normal for laboring mother and no pertinent finding seen in lab investigation. Ultrasound scan shows no other pertinent finding except decreased FHB. It can't diagnose the presence of double uterus since one uteri holding the fetus was dominant and covered the other.

Differential diagnosis

Rupture uterus was suspected since minor irregularity and poor contraction was assessed.

Management

Lower uterine segment transverse CS was done to effect the delivery of 3300 gm male neonate with APGAR score of 4 and 8 at first and 5th min respectively.

Outcome and follow-up

After extraction of the fetus, and uterus was exteriorized and mopped. Repair of the uterus made layer by layer and count checked correct, abdomen is closed layer by layer and the patient was transferred to recovery room in stable condition. The woman was discharged at 7th post op day after counseling about contraception and delay of pregnancy, and need for early ANC follow-up in future pregnancy.

Discussion

Standard classification of uterine malformation varies according to literatures. In comparison to classification made by American fertility society, this case takes a form resembling to didelphys uterus, especially the one with bicollis (double cervix) didelphy uterus and normal vagina. But the easily notable difference seen in this case is presence of one additional fallopian tube in the right side uterus since American fertility society classification considers one fallopian tube running to from right side of right cornua and one from left side running to the left [5].

Occurrence of pregnancy is not a miracle as fertility is not affected by majority of women with didelphic uterus. Studies agree that nearly only 13% of women with double uterus had infertility. The finding of study conducted at Tampere university further strengthen this issue as 94% of women with didelphy uterus had at least one pregnancy [1,3,4,11].

Study conducted at Tampere University Hospital, Finland showed that nearly 76% of pregnancy has occurred in the right side uterus. In hand with this study, the case report also showed that the pregnancy was occurred at the right side uteri. Therefore common presence of pregnancy at the right side is also the event occurred in this case report woman diagnosed at Ataye Hospiatl, Ethiopia supported by the previous study. Though it lacks clear justification why right side pregnancy is likely than the left in typical didelphy uterus, this case will not have as such difficult why it happens in this right as she has two fallopian tubes at the right side [5,11].

Moreover, similar to this case report the exact diagnosis of uterine didelphy is confirmed during cesarean section. A case report of 36 woman year old from Bulgaria also strengthen the condition as she was diagnosed during cesarean section [10].

Malpresentations, obstructed labor, increased likelihood of Cesarean delivery is some of obstetric complication related to MDA including uterine didelphy as described by plenty of studies. For instance CS was mode of delivery in 84% in women with didelphy uterus for variety of indications [10,11]. In addition to the aforementioned complications, Retrospective longitudinal study conducted at Valencia University School of Medicine, Spain found that among pregnant with didelphy uterus only 20% of pregnant achieved term delivery and 40% of term delivery were live birth. Another study conducted in twenty-six mothers with didelphy uterus, fetal survival rate was 67.5% [4,12]. Though such complications reported by other studies, preterm deliveries and fetal loss were common outcomes were not happened to this woman, she is not guaranteed in future pregnancies.

In general women with uterus didelphys belong to a high-risk group; still pregnancy outcome is comparatively good if prenatal follow-up is considered by anticipated obstetric complication. Considering future fertility, a cohort study which followed fate of women with uncorrected uterine anomalies showed that term pregnancy was achieved in 60% of case. This shows that the chance is higher for women who have history successful birth than women who has didelphy uterus and doesn't have history of birth [9,13]. The prognosis of pregnancy is comparatively good, while prematurity and fetal growth retardation indicate meticulous prenatal care.

Conclusion and Recommendation

Such cases of anomaly can be remaining undiagnosed until delivery, and even after then in some women. And professional's suspicion should be raised to extent of assessing anatomic disparities when cases of obstructed labor, mal presentation diagnosed as they appear in majority cases of malformations especially for providers working areas where prenatal assessment of woman is poor.

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Disclosure

The woman is informed about the case and agreed and written consent was found for sharing findings of her case for publication without mentioning her information affecting anonymity. We the authors declare that we have no conflict of interests by any means in this study. All the information required for this case report is included in the paper. There is no funded body for this study.

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