Case Report

Unruptured Term Pregnancy with an Alive Fetus in a Noncommunicating rudimentary Horn with Placenta Percreta

Sarwat Ara, Riffat Baby, Shaista Talib

Abstract

Pregnancy in rudimentary horn is a rare type of ectopic pregnancy and generally ruptures in second trimester with life threatening hemorrhage. The accuracy of ultrasonography (USG) in diagnosing rudimentary horn pregnancy at an advance gestation is even more difficult. We report a case of unruptured viable 37 weeks pregnancy in rudimentary horn of uterus. It was repeatedly missed on USG and diagnosed at the time of abdominal delivery done for placenta previa and fibroid uterus. The case is reported because of its extreme rarity. **Key Words:** Rudimentary, uterine horn, Placenta accrete.

INTRODUCTION

Mullerian duct abnormalities (MDAs) are met infrequently in routine gynecological practice. A large analysis of all the studies in the period from 1950 to 2007 suggests that the prevalence of congenital uterine anomalies in the general population is 6.7%; and in the infertile population 7.3%[1]. In women with a history of repeated pregnancy loss, the rate of mullerian anomalies increases to between 3% to 25% [2,3].Out of these abnormalities the commonest septate uterus occurred with an incidence of 25% followed by bicornuate 25% and arcuate 25% while that of unicornuate uterus with or with out rudimentary horn is 0.4% [4]. Rudimentary horn pregnancy (RHP) occurs in approximately 1/76 000 to 1/140 000 pregnancies [5,6,7] Uterine anomalies can be suspected or screened on bimanual or ultrasonographic examination. Various imaging modalities have been used in the diagnosis and evaluation of MDAs. Ultrasonography (USG) and hysterosalpingography may suggest a Mullerian duct anomaly, further confirmation by 3-D ultrasound MRI, hysteroscopy and laparoscopy is required [8].

MRI is especially useful in preoperative assessment when the ultrasonography is not able to confirm or rule out an ectopic pregnancy in rudimentary horn.

CASE REPORT

A 24 years old , Gravida-2 with out any past history of pregnancy loss presented in OPD as a case of asymptomatic major degree placenta previa. Her previous pregnancy was full term vaginal delivery 1 year back. Current pregnancy was supervised at some private clinic where USG done at 12, 24 and 35 weeks which were normal and had no complication till 37 weeks. On admission her vitals were stable. Her abdominal examination revealed enlarged uterus corresponding to gestational age. It was a single fetus in breach presentation with normal fetal movements and adequate liquor. Her ultrasound showed a major degree placenta previa with fibroid in lower uterine segment. Her emergency lower segment ceaserian section was performed because of placenta previa and labor pains. After delivering an alive 2.5 Kg female we came to know that it was gravid rudimentary horn with markedly adherent placenta reaching on to the outer wall of rudimentary horn which was attached to unicornuate uterus with a 4 cm pedicle. Left tube and ovary were attached to lateral side of left horn. The rudimentary horn along with placenta percreta, left tube and ovary was excised. Right tube, ovary and uterus were normal. Her post-op recovery was uneventful. Patient was discharged in satisfactory condition.

DISCUSSION

Unicornuate uterus with rudimentary horn is an uncommon type of uterine malformation leading to many obstetrical complications. In 90% of rudimentary

horns, there is no connection between the two uterine cavities[9]. After the first description of Pregnancy in a rudimentary horn (RHP) by Marceau and Vassal in 1669[7] RHP was not paid much attention for a long period till the model details presented by O'Leary and O'Leary[10] who reviewed and analyzed 328 published cases of pregnancies that occurred in a rudimentary uterine horn. Out of those only13 cases have been reported in English language journals. The above literature review report revealed that 89% ruptured and 61% of these ruptures took place in the second trimester. Fetal death occurred in 98% of cases; and surprisingly four RHP were found to be precisely diagnosed by ultrasound examination.[11] Likewise Nahum[12] summarized 588 such cases after a huge literature review of the 20th century enlightening hardly ever term pregnancy but mostly ending in the rupture of the horn, causing significant fetal mortality and maternal morbidity.[2,10,12] The term pregnancy in rudimentary horn with live fetus is an extraordinary unusual combination despite the fact that few live births have been reported.[6,13,14,15,16] In an appraisal from 1990 to 1999, only 6% of rudimentary horn pregnancies advanced to term with neonatal survival of 13% still this was attainable for the reason that earlier detection and intervention was done[14,16]. As the usual consequence of RHP is rupture during first and second trimester in 80% of cases resulting in life-threatening intraperitoneal hemorrhage therefore early, prerupture diagnosis of RHP continued to be of paramount significance. Although sensitivity of ultrasonography for diagnosis has been stated to be 26%[9] and sensitivity further decreases as the pregnancy advances beyond the first trimester yet cases have been reported to be diagnosed by ultrasound and MRI [9,18,19,20,25] . MRI appeared to be the "gold standard" for diagnosing and grouping uterine anomalies because of its 98%-100% accuracy [21]. Our case reached to term without diagnosis and complications if had it been diagnosed earlier, it would have been better to be removed as concluded by Nirmala Duhan[22] that rudimentary uterine horns whether they exist in association with a patent uterovaginal tract or in isolation, should be excised because of the significant risk of rupture of RHP. Even in a communicating horn a viable term pregnancy is hardly ever obtained [2] In addition to the morbidity associated with uterine rupture, abnormal placentation like accreta or percreta[23] may also be encountered in these pregnancies and adds further complication. Nine cases of placenta accreta in a pregnant rudimentary uterine horn have been reported and this state of affairs was followed by hemorrhagic rupture of the uterus in 8 cases.[23,24,25] while ninth case of RHP with placenta accrete presented by Henriet E, et al[25] was diagnosed before rupture.Oral et al23 anticipated on the basis of literature review that the prevalence of placenta accreta in rudimentary uterine horn pregnancies may be greater than 10%. Our patient belonging to the rarest situation revealing term RHP with percreta and without rupture or intraperitoneal hemorrhage. It might be a second case as we found one such case report[13] in previously published literature. Our patient was admitted as a case of placenta previa major degree with fibroid uterus however in real situation it was RHP with placenta percreta and normal uterus which was thought to be fibroid on ultra sonography. In above patient the ultrasound was done earlier at 12, 20 weeks period of gestation and late 37 weeks, the diagnosis of rudimentary horn pregnancy was not picked out at any stage till the pregnancy ended in ceaserian section. We can over come sonographic misdiagnosis of rudimentary horn in early pregnancy if we bear in mind the previously suggested criteria set by Tsafrir[19] for sonographic diagnosis of RHP: It consists of following (1) a pseudo pattern of an asymmetrical bicornuate uterus, (2) Absent visual continuity in tissue surrounding the gestational sac and the uterine cervix and (3) the presence of myometrial tissue surrounding the gestational sac. Ultrasonologist must be aware of the above diagnostic criteria in order to over come diagnostic dilemma. Investigation to rule out urinary tract malformation should be done as these may be associated with uterine malformations. Approximately 40% of all patients with a unicornuate uterus suffer from renal abnormalities[26] Ultrasound examination of urinary tract was normal in our patient.

CONCLUSION

We must be familiar with Mullerian duct abnormalities and keep in mind the serious situation of pregnancy in rudimentary horn.

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