CASE REPORTS

UNRUPTURED POSTDATED PREGNANCY WITH A LIVE FETUS IN A NONCOMMUNICATING RUDIMENTARY HORN

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ABSTRACT

Pregnancy in a noncommunicating rudimentary horn is an extremely rare and a life-threatening condition as it mostly terminates by rupture by the second trimester of pregnancy. Postdated pregnancy and delivery of a live fetus in a rudimentary horn have been rarely reported. A case of noncommunicating unruptured rudimentary horn pregnancy progressing to 41 weeks and 3 days period of gestation where the diagnosis was initially missed at obstetric sonogram at 18 and 34 weeks and then misdiagnosed later as abdominal pregnancy is being reported. Preoperative diagnosis, successful delivery of a live fetus and excision of the rudimentary horn was performed.

Key words: Noncommunicating rudimentary horn, pregnancy, unicornuate uterus

INTRODUCTION

Unicornuate uterus with rudimentary horn is a rare type of uterine malformation which is susceptible to many obstetrical complications, and in 80-90% cases of rudimentary horn, there is no communication between the two uterine cavities.[1] Incidence of pregnancy in such rudimentary horn cases is 1 in 76,000.[2] Conception in noncommunicating rudimentary horn arises by trans-peritoneal migration of either spermatozoa or the fertilized ovum from the contralateral side.[3] Pregnancy outcome is poor, and the most dreaded complication is rupture of rudimentary horn pregnancy. In 80% of cases, the uterine rupture occurs in the first and second trimester; and in 20%, in the third trimester.[3] Only 8% of rudimentary horn pregnancies are diagnosed before the symptoms appear.[4]

Postdated term pregnancies with delivery of a live fetus have been rarely reported in such an unusual and life-threatening condition.[4] We are reporting a case where pregnancy in noncommunicating rudimentary horn reached 41 weeks and 3 days without rupture and resulted in a delivery of a term live fetus.

CASE REPORT

A 25-year-old second gravida was referred to our obstetric unit at 41 weeks and 3 days period of gestation with suspected diagnosis of abdominal pregnancy. Present pregnancy was irregularly supervised at a primary care hospital and apparently had no complications till 34 weeks of pregnancy, when intrauterine growth retardation was suspected clinically. Ultrasound examination at 34 weeks revealed intrauterine growth retardation with oligohydramnios. However, she did not visit the local doctor till 41 weeks 3 days, when repeat ultrasonography (USG) was done; and subsequently, patient was referred to us with a suspected diagnosis of abdominal pregnancy with fetal distress. USG done earlier at 18 weeks was reported to be normal. There was no history of pain in abdomen during this pregnancy; however, fetal movements were less perceived than previous pregnancy. On examination there was no pallor or tachycardia; and blood pressure was normal. Obstetrical examination revealed fundal height of 32 weeks pregnancy with decreased liquor, and uterus appeared deviated to the right side. Ultrasound examination showed two uterine horns. The gravid horn was on the right side, and it showed a fetus with fetal parameters corresponding to 33 weeks period of gestation, with liquor markedly reduced. The gravid horn had no communication with the cervix. On the left side, the other horn of the uterus was visible [Figures 1 and 2]. Biophysical profile was 2/10, indicating severe antepartum fetal distress. With these clinical and ultrasound findings, a diagnosis of rudimentary horn pregnancy was suspected and decision for emergency laparotomy was taken after arranging for adequate blood. At laparotomy, gravid right-sided rudimentary horn was discovered, which was connected to the main uterine horn with a thick 2-cm fibrous band. There was no communication of the gravid horn with the cervix or with the normal horn [Figure 3]. Transverse incision was made over the cervix and delivery of a live born male child weighing 1.6 kg was delivered. Baby had features of intrauterine growth retardation and was severely asphyxiated. Liquor was thick meconium stained. Excision of the rudimentary horn with right-sided salpingectomy was done. Postoperative period was uneventful and she was discharged on the seventh postoperative day.
Pregnancy in a noncommunicating rudimentary horn is one of the rarest and most morbid conditions. From 1966 to 2003, only 156 cases of the pregnancy in rudimentary horn have been reported. Due to underdevelopment and poor distensibility, the pregnancy in rudimentary horn terminates by rupture; missed abortion or intrauterine fetal death; and rarely, fetal survivals have been reported. The most serious complication associated with this condition is rupture of the rudimentary horn, which may be life threatening to the mother because of massive intraperitoneal hemorrhage. In our patient, pregnancy reached beyond 41 weeks without catastrophic complication. To prevent this complication, diagnosis of rudimentary horn pregnancy should be made early in pregnancy.

A careful pelvic examination in the first trimester of pregnancy and finding of a deviated normal-sized uterus with palpable adnexal mass should arouse suspicion of a uterine anomaly. On pelvic examination, it is difficult to differentiate ‘unicornuate uterus with rudimentary horn pregnancy’ from ‘pregnancy in a bicornuate uterus,’ but it can be distinguished on USG. Pelvic examination is valuable only during the first trimester, when the uterus and the rudimentary horn still lie in the pelvis. There have been case reports of diagnosis by ultrasound and magnetic resonance imaging (MRI). The sensitivity of ultrasound examination for diagnosis has been reported to be 26%, and the sensitivity decreases as the pregnancy advances beyond the first trimester. In our patient, the ultrasound done earlier at 18 and 34 weeks period of gestation, the diagnosis of rudimentary horn pregnancy was missed and pregnancy was allowed to continue. Literature shows very low preclinical (8%) and preoperative detection rates (29%). This highlights the importance of a thoroughly performed ultrasound examination in the first and early second trimester, where emphasis should be not only on the details of pregnancy but also on ruling out uterine anomaly. Tsafiri et al. suggested the following criteria for sonographic diagnosis of rudimentary horn pregnancy: (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. Additionally, MRI can be used to confirm the diagnosis before an invasive procedure is undertaken.

Our case was diagnosed as a case of abdominal pregnancy when she was referred to us. This was ruled out preoperatively on the basis of ultrasound finding of a well-defined placenta fitting into the confines of the rudimentary uterine horn.

Live births are rarely reported in this condition, and till 1999 only 13 fetal survivals were reported in English literature. In a review from 1990 to 1999, only 6% of rudimentary horn pregnancies were reported to have progressed to term with 13% neonatal survival, and this was because of earlier detection and intervention. In our case because of the delay in diagnosis, pregnancy progressed to 41 weeks and 3 days with a delivery of live fetus, although the baby was growth retarded and had severe birth asphyxia.

Treatment of this condition is immediate surgery once diagnosis is confirmed, as was done in our case, where laparotomy, cesarean section and removal of rudimentary horn and fallopian tube were done. There is a higher risk of placenta accreta in these cases. The incidence of postpartum hemorrhage is also high in cases of nonseparated rudimentary horn pregnancy. We did not have these complications as it was a separated variety of rudimentary horn which could be removed easily [Figure 3]. Our patient is also not at risk of scar rupture in the next pregnancy because there is no compromise in the integrity of the remaining uterine horn, although fertility will be less, as seen in all cases of unicoricate uterus. Nahun has given a role of conservative approach until viability is reached if the condition is diagnosed early in gestation.

**REFERENCES**

RUDIMENTARY HORN PREGNANCY: PRERUPTURE DIAGNOSIS AND MANAGEMENT

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A unicornuate uterus with a rudimentary horn is a rare mullerian abnormality which may cause many gynecological and obstetrical complications. Rupture of pregnant rudimentary horn in the second trimester is the usual presentation, resulting in maternal morbidity and even mortality.

Key words: Magnetic resonance imaging, rudimentary horn pregnancy, ultrasonography

ABSTRACT

A 32-year G4P303 at 30+4 weeks gestation presented with intrauterine fetal death diagnosed on ultrasonography (USG) at 26 weeks after one episode of vaginal bleeding. Extraamniotic ethacridine lactate was instilled for termination of pregnancy at a government hospital. Subsequently, she received sublingual misoprostol. As the patient did not abort, she came to our hospital.

On examination, vitals were stable and uterus was corresponding to 14-16 weeks size. On vaginal examination, a closed cervical os, normal size uterus deviated posteriorly and a mobile mass in anterior fornix was felt. USG revealed a normal size nonpregnant uterus and a single dead fetus of 16 weeks parameters in a thin myometrial sac anterior to uterus. A Foley’s catheter was inserted transcervically and bulb inflated with 10 cc normal saline. Repeat USG showed the catheter bulb in the uterine cavity posterior to the sac containing the fetus, thus confirming the pregnancy to be outside the normal uterine cavity and most probably in the rudimentary horn [Figure 1]. On laparotomy, uterus was normal size. Left rudimentary horn with dead fetus was identified with left tube and ovary attached to it.

Figure 1: Catheter bulb in uterine cavity

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