

Live Birth in an Unruptured Non-Communicating Rudimentary Horn

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Abstract

Pregnancy in a rudimentary horn of uterus is a form of ectopic pregnancy. Clinical manifestations will depend upon the development of rudimentary horn. Viable pregnancy in non-communicating rudimentary horn is very rare, as more than 80% cases of rudimentary horn pregnancy present in second trimester with rupture of the horn and is life threatening. Early diagnosis of rudimentary pregnancy is required to avoid such complication. Sometimes, even modern ultrasonography scan cannot confirm the diagnosis of rudimentary horn pregnancy. We report a case of successful pregnancy outcome at 34 weeks in a non communicating rudimentary horn.

Keywords: Pregnancy; Ultrasonography; Rudimentary Horn.

Introduction

Incidence of mullerian abnormality is 3-4% and pregnancy in rudimentary horn accounts for 1: 1,00,000 to 1: 1,40,000 pregnancies [1]. Pregnancy in a rudimentary horn of a unicornuate uterus is a form of ectopic pregnancy and results from trans peritoneal migration of sperm or zygote. In more than 80% cases rupture of horn occurs in second trimester and patient presents as acute abdomen with haemoperitoneum [2]. Very few pregnancies reach viability and are difficult to diagnose antenatally. Solitary case

reports are there in the literature of successful pregnancy outcome in non communicating uterine horn^{3,4,5}. We report a case of successful pregnancy outcome at 34 weeks in a non communicating rudimentary horn which was diagnosed at laparotomy.

Case Report

A 22 years old, unbooked, gravida three para one with no live child and one abortion, presented with 34 weeks of gestation with severe preeclampsia. The general condition of the woman was good, per abdomen examination revealed 28 weeks size asymmetrically enlarged uterus more on left side with breech presentation. The liquor was less and the uterus was full of the fetus. Ultrasound showed a single live fetus, presenting as breech, corresponding to 32 ± 3 weeks of the gestation, with absent liquor, baby weight of 1300 ± 100 gms and bicornuate uterus. On detailed history, it was found that she attained menarche at the age of 15 years and was married since four and half years. She had normal menstrual cycles with history of moderate dysmenorrhoea on first day of cycle for which she took off and on analgesics. Three years back, she had preterm vaginal delivery at seven months of gestation conducted at home and the baby expired after one day due to prematurity. After the first delivery she started having pain in lower abdomen for which she consulted general practitioner and got her ultrasonography done which showed bicornuate uterus with right horn measuring 55mmx34mm and left horn 35mmx26mm with single cervix. Hysterosalpingography showed single spindle shaped uterine cavity on right side with single fallopian tube and with free peritoneal spill. Magnetic resonance imaging showed two separate endometrial cavities, left horn smaller than the right with single cervix and both the

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ovaries were normal. She did not undergo any further treatment. Two years back, she had spontaneous abortion at two and half months of gestation, not followed by the curettage. During the present pregnancy, she did not have any antenatal checkup. After admission to the hospital, the patient was started on tablet labetalol and investigated for preeclampsia. Hypertension persisted even after medical treatment and termination of pregnancy was decided. On per vaginum examination there was single cervix which was uneffaced, admitting tip of finger, no fetal part felt within reach of finger and the uterine horn which was communicating the cervix seemed to be non pregnant. Diagnosis of pregnancy in non communicating horn was suspected and

caesarean section was planned. Per operatively, the uterus was asymmetrically enlarged with two well defined uterine horns, with one larger than the other due to pregnancy. Vertical incision was given over the pregnant horn of the uterus as lower segment was not formed (Figure-1) and a baby weighing 1.25 kg was delivered. On inspecting the uterine cavity, no communication with the other horn was found which was confirmed by dye test. The rudimentary horn was attached to the normal uterus by about 2.5 cm broad stalk and it was excised (Figure-2). Unicornuate uterus left appeared to be normal (Figure-3). Post operative period was uneventful. The patient was discharged seven days after surgery in satisfactory condition.

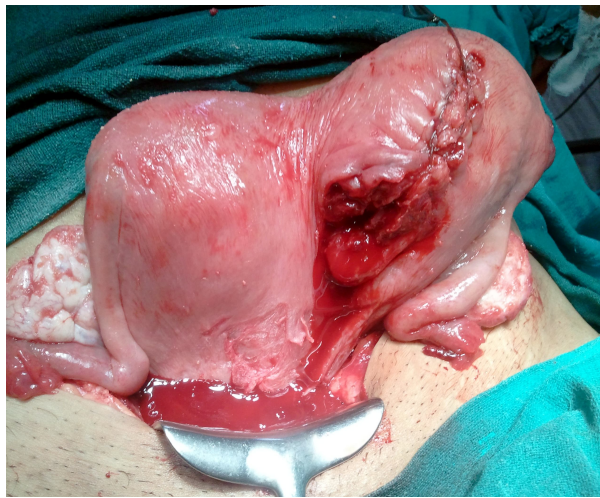


Fig. 1: Bicornuate uterus after cesarean section

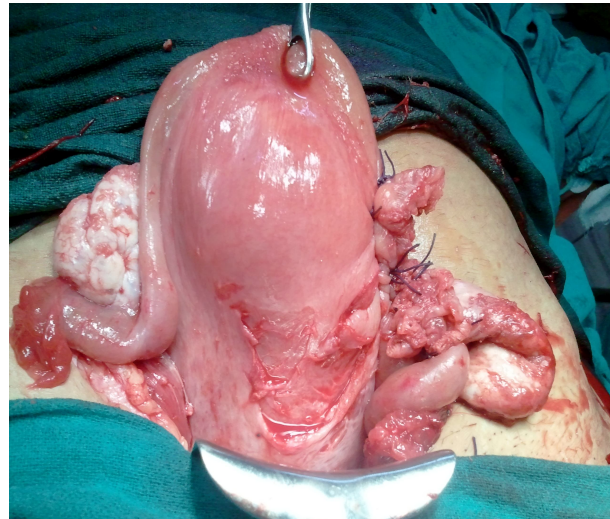


Fig. 3: Uterus after excision of rudimentary Horn

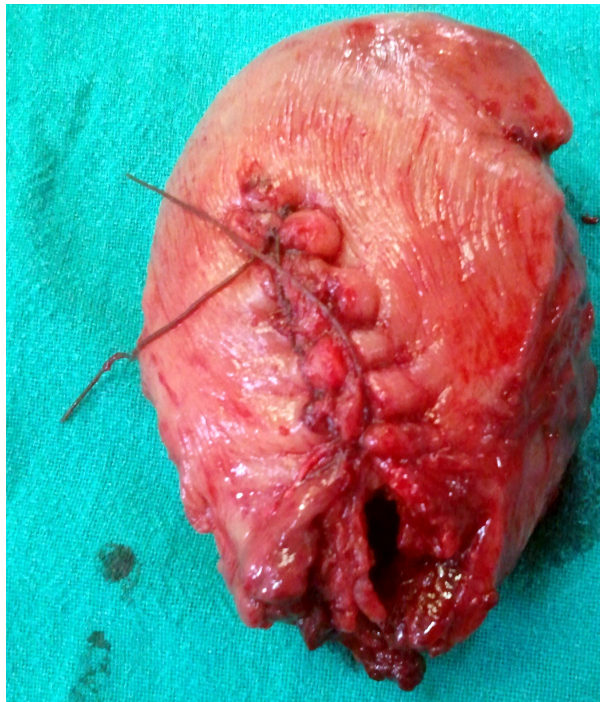


Fig. 2: Excised Rudimentary horn

Discussion

Unicornuate uterus with a rudimentary horn is a rare type of uterine malformation and results from an arrest in the development of the müllerian ducts with inappropriate fusion on contralateral side. In 83% to 90% of cases, there is no direct communication between the horn and the functional portion of the uterus and fertilization is thought to occur via transperitoneal migration of the sperm or conceptus [5].

Clinical manifestation is different in communicating and non communicating rudimentary horn pregnancy. In communicating rudimentary horn, chances of live fetuses are more. Patient may present with pain abdomen, bleeding per vaginum, malpresentation and sometimes diagnosed at time of termination of pregnancy as a retained placenta. Non communicating rudimentary horn present in second trimester in 80% cases due to rupture of gravid horn as an acute emergency with evidence of haemoperitoneum. In 20% cases, it may

present late when musculature is well developed to accommodate growing fetus, and the patient complains of frequent pain abdomen and is associated with preterm labor, intra-uterine growth retardation, oligohydramnios, pre-eclampsia and malpresentation [2].

To prevent serious complications due to rupture of horn early diagnosis is important and only 8% rudimentary horn pregnancies are diagnosed before symptoms appear. Diagnosis of uterine malformation may be done by hysterosalpingography, hysteroscopy, ultrasonography, laparoscopy. MRI and ultrasonography are not very satisfactory because the enlarging horn with a thinning of myometrium can obscure anatomic structures [6].

Laprotomy is the standard mode of treatment in non-communicating rudimentary horn pregnancy and usual procedure is removal of baby followed by excision of rudimentary horn along with fallopian tube of that side to prevent future recurrence of ectopic pregnancy, as was done in present case. There are few case reports of the live pregnancy in noncommunicating uterine horn [3,4,5]. As now the nursery facilities are increasing the live babies are delivered even at a gestation lower than 28 weeks and incidence of live pregnancy in rudimentary horn may rise in future.

In our case exact diagnosis of rudimentary horn pregnancy was not made prior to laprotomy though the case was diagnosed as bicornuate uterus in non pregnant state. Decision for laprotomy was taken as clinically the pregnancy was suspected in non communicating horn. Had the patient undergone the excision of the horn in non pregnant stage this laparotomy might have been avoided. So once the diagnosis of rudimentary horn is made in non pregnant stage, it should be excised before patient becomes pregnant to avoid life threatening complications.

Conclusion

If diagnosis of rudimentary horn is made in non pregnant stage, it should be excised before patient becomes pregnant to avoid life threatening complications of pregnancy in rudimentary horn. If patient presents during pregnancy, early diagnosis before the serious symptoms of uterine rupture appear is important. High degree of suspicion is required for early diagnosis and it should be suspected in a patient who presents with asymmetrical enlarged uterus with continuous pain abdomen, malpresentation, oligohydramnios or growth restriction.

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