

Secondary abdominal pregnancy following rupture of rudimentary horn: A case report

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Abstract

Ruptured rudimentary horn is a life threatening obstetrical emergency where the diagnosis is either missed or delayed. We report a case of 21 years old Gravida 2 Para 1 Live 1 with previous vaginal delivery who presented with acute abdominal pain with clinical diagnosis of ruptured ectopic pregnancy, posted for emergency exploratory laparotomy. Laparotomy revealed ruptured rudimentary horn pregnancy with fetus in the abdominal cavity. Excision of rudimentary horn was done which was non-communicating.

Keywords: Secondary abdominal pregnancy, Rudimentary horn pregnancy, Ectopic pregnancy.

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Introduction

Pregnancy in rudimentary horn is rare form of ectopic gestation, where incidence is difficult to calculate but reported between 1/76000 and 1/140000 pregnancies⁽¹⁾. Unicornuate uterus with rudimentary horn may be associated with gynecological and obstetric complications like infertility, endometriosis, hematometra, urinary tract anomalies, abortions and preterm deliveries.

Case History

A 21-year-old female G2P1L1 with previous vaginal delivery presented with amenorrhoea of 6 months with gestational age 24 weeks with complaints of pain in abdomen since 1½ month which has

aggravated past 8 days. Pain was intermittent, mild, restricted in left side of abdomen not associated with vomiting and there were no bowel and urinary complaints. Patient had visited private hospital with similar complaint 1 month back where ultrasonography was done which showed live left tubal ectopic pregnancy and advised laparotomy which she did not undergo due to financial reason. Then patient came to our hospital with aggravation of pain since 8 days. On general examination patient had ill look, pulse-120/m, blood pressure-90/60 and pallor present. Cardiovascular and respiratory examination revealed no abnormality. On per abdominal examination bilobed mass of 24 weeks pregnant uterine size was palpable more on left side. There was tenderness on left side. On per vaginal examination os was closed and uterus was not felt separately. Clinically there was suspicion of secondary abdominal pregnancy which was confirmed by ultrasonography showing live extra uterine pregnancy suggestive of ruptured ectopic into abdominal cavity (Fig. 1).



Fig. 1: Ultrasonographic images of Secondary abdominal pregnancy

Patient was taken for emergency exploratory laparotomy, intra-operatively gestational sac was in peritoneal cavity which was ruptured. Male baby weighing 660gm was removed. Baby cried but succumbed immediately.

Placenta was adherent to colon. Maximum placenta was removed and uterus was delivered out. There was evidence of ruptured rudimentary horn on left side. Rudimentary horn was removed along with salpingectomy on left side. Histopathology confirmed ruptured rudimentary horn pregnancy. Patient received 2 packed red cell preoperatively and 3 packed red cell intraoperatively and 1 packed red cell transfused postoperatively. The postoperative period was uneventful and was discharged on the 10th postoperative day. Follow up was advised by measuring beta HCG level and ultrasonography examination. Her beta HCG was negative after 15 days and ultrasonography pelvis revealed no abnormality.

Discussion

Uterus is formed by the fusion of the two Mullerian ducts. Arrest in the development of one of the Mullerian ducts with incomplete fusion with contralateral side results in rudimentary horn. 83% of cases have non communicating rudimentary horn⁽²⁾. According to American Fertility Society classification of Mullerian anomalies, our patient belong to type A1b variety having non-communicating rudimentary horn. Likely mechanism for pregnancy occurring in the non-communicating rudimentary horn thought to be transperitoneal migration of spermatozoa or fertilized ovum, based on the finding of corpus luteum in the contralateral ovary in 10% of cases⁽³⁻⁴⁾.

Usually rudimentary uterine horn pregnancy rupture during second or third trimester results in dreaded complication which have grave consequences for both mother and fetus. Only 30% of rudimentary horn pregnancy reach the term, with low fetal survival rate⁽⁵⁾.

Ultrasonographic diagnosis made prior to rupture is the key to successful management of rudimentary uterine horn pregnancy. For diagnosis of uterine anomaly three dimensional ultrasonography may be used with sensitivity of 26% which decreases with advancing gestational age. Tsafir et al outlined following criteria for ultrasonographic diagnosis (a) pseudopattern of asymmetrical bicornuate uterus. (b) Absent visual continuity tissue surrounding the gestation sac and the uterine cervix. (c) Presence of myometrial tissue surrounding the gestation sac⁽⁶⁾.

MRI has proven to be useful tool with high rate of diagnostic accuracy for Mullerian abnormalities. Another possibility of pre-pregnancy diagnosis can be done by laparoscopy, hysterosalpingography, hysteroscopy which are mostly carried out for evaluation of infertility or recurrent abortion. Our patient had no history of infertility or bad obstetric

history, so she was not investigated for the same and remain undiagnosed. Another possibility was she had previous home delivery so she remained undiagnosed for her uterine anomaly.

First case of ruptured rudimentary horn pregnancy was described by Mauriceau in 1669. In women with rudimentary horn 36% can have renal anomalies⁽⁷⁻⁸⁾. In our case ultrasonography KUB did not reveal any renal anomalies.

Standard treatment of rudimentary horn pregnancy, normal or complicated is surgical excision of the rudimentary horn with ipsilateral salpingectomy. Excision of the rudimentary horn and ipsilateral salpingectomy is done to prevent the future complication of life threatening rupture and ectopic pregnancy in the ipsilateral tube.

This case report has highlighted the need for high level of suspicion for this rare but very important complication of pregnancy which can be sonographically missed and misdiagnosed as tubal pregnancy, cornual pregnancy, abdominal pregnancy and intrauterine pregnancy in bicornuate uterus especially in inexperienced hands.

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