

A case of ruptured rudimentary horn pregnancy of unicornuate uterus at 18 weeks

Auxeelia packia Devi.R ¹, Sowmiya Boomiraja ²,

Chief Medical Officer ¹, DNB OBS & GYN Resident ²,

Department of Obstetrics and Gynecology, Rajiv Gandhi govt women and children hospital, Puducherry.

ABSTRACT: A unicornuate uterus with an accessory horn is one of the rarest congenital anomalies hence the possibility of ectopic pregnancy in the accessory uterine horn is highly uncommon occurring in 1/76 000 – 1/150 000. It poses a significant risk to maternal life as it is difficult to identify before surgery due to severe hemoperitoneum in the event of rupture of ectopic pregnancy. We report a case of 27-year-old primi with ruptured rudimentary horn of unicornate uterus at 18 weeks gestation where diagnosis is made before surgery and proceeded for laparotomy and resection of the rudimentary horn.

Keywords: Acute abdomen, Ruptured rudimentary horn, Mullerian anomalies, Ectopic pregnancy.

INTRODUCTION

Unicornuate uterus with a rudimentary horn is a mullerian duct malformation. The incidence of mullerian duct malformations in the general population is estimated to be 4.3% while that of unicornuate uterus is about 0.4%¹. A unicornuate uterus can be present alone or with a rudimentary horn or bulb on the opposite side. About horn pregnancy occurs in approximately 1/76 000 to 1/150 000 pregnancies. Rupture through the wall of the vascular rudimentary horn is related to sudden and severe intraperitoneal haemorrhage and shock. The first case of uterine rupture associated with rudimentary horn pregnancy was reported in 1669 by Mauriceau and Vassal.

CASE REPORT

A 27-year-old primigravida presented to our hospital at 18 weeks and 3 days of pregnancy with acute onset of generalized pain abdomen. There was no complaint of vaginal bleeding. Her initial dating scan was normal with evidence of intrauterine gestation. On examination patient was conscious, had one episode of giddiness, her pulse was 115 beats/min, blood pressure 90/60 mmHg, respiratory rate 20/min. On abdominal examination, there was generalized tenderness. On per speculum examination of vagina, no active bleeding was noted. On per vaginal examination, cervix pointing downwards, the uterine size could not be measured and there was tenderness in bilateral fornices.

After admission, investigations were sent, blood arranged and vitals stabilized. An emergency transabdominal ultrasound was done that showed an empty uterine cavity with a live fetus en sac lying in abdominal cavity with large amount of fluid in the peritoneum. A provisional diagnosis of ruptured rudimentary horn pregnancy was made and patient was prepared for emergency laparotomy.



FIG.1 a. Fetus in abdominal cavity. b. Free fluid in abdominal cavity

Patient was subsequently taken up for exploratory laparotomy. Uterus was approached via RPM incision

Intraoperative findings:

- Hemoperitoneum of approximately 1500 ml.
- Ruptured left rudimentary horn of length 5 cms arising from unicornuate uterus with placenta in the cavity of the left horn.
- Fetus with amniotic sac in peritoneal cavity with cord communicating to the placenta.

The ruptured rudimentary horn was resected with left salphingectomy and repair done. Saline wash given. Intraperitoneal drain kept. Immediate post-operative period was uneventful.

On post-operative day 7, suture removal done, patient discharged in a stable and satisfactory condition with an advice to come early for an ultrasound evaluation in subsequent pregnancies to prevent the recurrent risk of ectopic pregnancy.

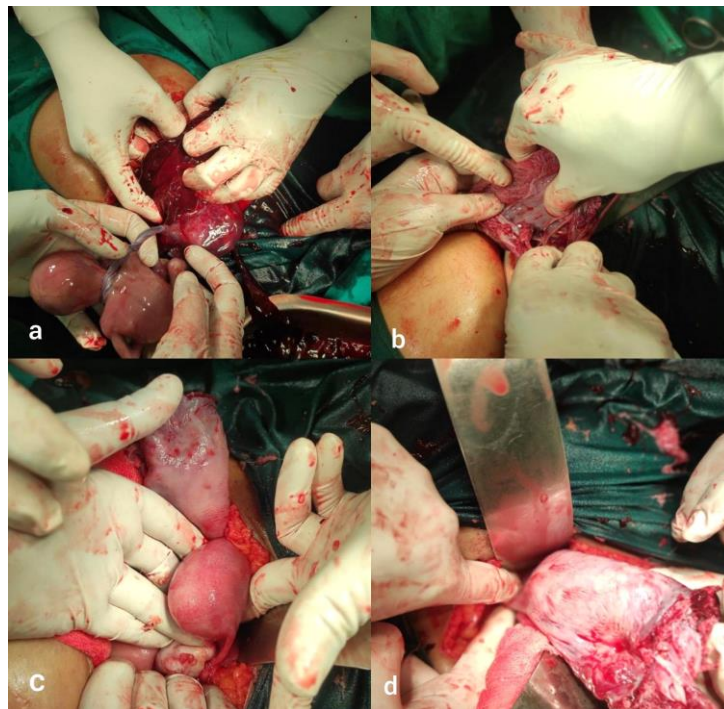


FIG.2 a. An 18 weeks fetus in abdominal cavity b. Placenta attached to ruptured horn.

c. Unicornuate uterus with ruptured left rudimentary horn. d. Ruptured left rudimentary horn.

DISCUSSION

Unicornuate uterus (class U4) is a result of abnormal or failed development of one Mullerian duct. It accounts for approximately 2.4-13% of all Mullerian anomalies and is divided into two sub classes depending on the presence or not of a functional rudimentary cavity class U4a or hemi uterus with a rudimentary (functional) cavity characterized by the presence of a communicating or non-communicating functional contralateral horn. Class U4b or hemi uterus without rudimentary (functional) cavity characterized either by presence of non-functional contralateral uterine horn or by aplasia of the contralateral part.

Mechanism of pregnancy occurring in the non-communicating rudimentary horn is assumed to be by transperitoneal migration of either the fertilized ovum or the spermatozoa from the contralateral tube.

The natural fate of ectopic pregnancy in rudimentary horn is usually rupture during the last two trimesters due to underdevelopment, variable thickness and poor distensibility of myometrium and dysfunctional endometrium². As a result, very few (10%) of these pregnancies reach full term out of which only 2% of the fetuses can survive.

Different imaging modalities could be used for early diagnosis of the accessory horn of uterus including TVS, three dimensional USG or MRI scans³. Ultrasonographic diagnosis made prior to rupture is the key to successful management of rudimentary uterine horn pregnancy. MRI has a high rate of diagnostic accuracy for Mullerian abnormalities. Resection of the rudimentary horn and the ipsilateral fallopian tube by either laparotomy or laparoscopy is the mainstay of management of Rudimentary horn ectopic pregnancy.

In our case, even though the 1st trimester ultrasound did not reveal any mullerian anomaly, strong suspicion of ruptured rudimentary horn with timely decision for laparotomy was made. we resected the rudimentary horn along with ipsilateral fallopian tube by laparotomy. It is recommended not to postpone surgery once the diagnosis of a unruptured ectopic pregnancy in rudimentary horn is made as the timing of rupture depends on the thickness of the horn musculature and once it ruptures, will lead to catastrophic complications.

CONCLUSION

The preoperative and prerupture diagnosis still remains a challenge especially in a women who do not undergo prepregnancy or early pregnancy diagnostic workup. Early diagnosis is the key to successful management. Therefore there should be high index of suspicion and it should always be considered as a differential diagnosis in a pregnant women presenting with acute abdomen and shock.

Conflict of interest There is no conflict of interest

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