

A Rare Case Report of Ruptured Cornual Ectopic Pregnancy

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Abstract

Cornual pregnancy is a rare variety of ectopic gestation that occurs in the rudimentary horn of the uterus with higher mortality rate due to rupture and late diagnosis. It often ruptures later than other tubal pregnancies because the myometrium is more distensible than the fallopian tube. We are reporting a case of ruptured cornual ectopic pregnancy with no identified risk factor and delayed presentation. Patient presented with complaints of 6 months amenorrhea and abdominal pain since 1 month and bleeding since 2 days. Ruptured cornual ectopic pregnancy was diagnosed after 2 days of induction of failure of labor (by tab misoprostol) on ultrasonography. Subsequently, patient underwent laparotomy followed by cornual resection with salpingectomy

Keywords

Cornual ectopic pregnancy, laparotomy.

I. Introduction

Cornual pregnancy is a rare form of ectopic pregnancy. Cornual pregnancies account for 2-4% of ectopic pregnancies¹ and 20% of cases that advance beyond 12 wks of gestation ends in rupture. With it, mortality rate is 7 times higher than other ectopic pregnancies. Cornual pregnancy is least common among ectopic pregnancies, but has catastrophic consequence due to rupture and late diagnosis. As pregnancy location is within the myometrium so it is more distensible and expansion as well as rupture occurs characteristically during the fourth or fifth gestation. It is very difficult to make a diagnosis of cornual pregnancy before rupture². We report a case where 20 wks cornual ectopic pregnancy was diagnosed after uterine rupture.

II. Patients and Methods

A 22yr old patient Hema admitted on 20th Sep 2014 in PDZH in Udaipur with complaints of 6 months amenorrhea and abdominal pain since 1 month and bleeding per vagina since 2 days. Her obstetrical history was unremarkable with no history of miscarriages. Her past menstrual history included regular normal flow. There was no history of any kind of contraceptive use, pelvic inflammatory disease, or tuberculosis. She also received two inj TT. Ultrasonography that was performed 20 days ago mentioned single viable intrauterine pregnancy of 20wks gestation with foetal movement and foetal heart present.

On admission, her vitals were stable with pulse 86 per minute and BP 110/70 mm Hg. On the day of admission, ultrasonography findings revealed single intrauterine pregnancy with no cardiac activity. On abdominal examination, fundal height was 16wks and vaginal examination revealed product of conception leading to diagnosis of IUD with inevitable abortion. Following that, labor was accelerated with tab misoprostol 200microgram 4 hrly for 1day followed by mannitol the next day. After 2 days of acceleration of labor, patient was not successfully delivered. It was finally decided to repeat the ultrasonography, which revealed the finding of a separate uterus seen with normal endometrial cavity and single breech foetus present in abdominal cavity with no cardiac activity. Subsequently an emergency laparotomy was performed under general anaesthesia. On laparotomy, ruptured right cornual pregnancy was found and bicornuate uterus was seen in which one cornu of uterus was normal whereas the other cornu was ruptured. Both cornua attached together by thick fibrous band and were non-communicating. A male foetus was present in the abdominal cavity and placenta was densely attached to ruptured cornu. Hemoperitoneum was also present in abdominal cavity (approx. 500cc). Right side ovary and left side ovary and fallopian tube were found normal. Right-sided fallopian tube was found adherent to ruptured cornu. Finally resection of right cornu with right salpingectomy was performed. One unit fresh blood transfused during surgery. Postoperative period was uneventful. Patient was discharged on 6th postoperative day.

III. Discussions

Ectopic pregnancy is the one in which the fertilized ovum is implanted and develops outside the normal endometrium of uterine cavity³. The most common site of implantation is fallopian tube, which occurs approximately 97% of all ectopic pregnancy [4]. Cornual pregnancy is the least frequent variety of ectopic pregnancy and its occurrence is rare [1]. Incidence of cornual pregnancy is 2-4%. Cornual pregnancy is associated with 7 times more mortality rate compared to other ectopic pregnancy. The etiologic factors for ectopic pregnancy are pelvic inflammatory disease, contraception failure, prior ectopic pregnancy, history of tubal ligation and tubal reconstructive surgery, history of IUCD use, previous history of abortion, endometriosis, rapid transit of the fertilized ovum due to non-receptive endometrium, high number of transferred embryos, a transfer near the uterine horn, excessive pressure on the syringe during the transfer, or difficulties during the ET procedure and smoking during pregnancy [5]. Bilateral salpingectomy is likely to be another risk factor for cornual pregnancy [6]. Peri and intratubular adhesions related or not related to endometriosis, is an additional risk factor. Some authors also consider the quality of the embryos and the hormonal milieu at the moment of transfer as possible causes⁷. In

general, ectopic gestation is rarely diagnosed before rupture or haemorrhage takes place. Cornual pregnancy is diagnosed with ultrasonographic criteria in the presence of a positive hCG level indicating pregnancy⁸. These criteria are: no gestation sac in the uterine cavity, located gestational sac in close proximity to the uterus, observing a thin myometrial wall or thick muscle layer around the gestation sac. Transvaginal three-dimensional ultrasound scanning has also been utilized with its capacity to reproduce the coronal plane of the uterus⁹. Therefore, it is clear that the diagnosis of cornual pregnancy is dependent on the quality of ultrasound and the skills of investigator especially in haemodynamically stable patients. MRI scan may be a useful tool to diagnose the cornual ectopic pregnancy in doubtful cases. The treatment modalities range from medical treatment to more invasive surgical techniques. When an unruptured cornual pregnancy is diagnosed, there are few medical treatment options such as medical management that includes injecting methotrexate through parenteral route or injecting methotrexate or potassium chloride directly into the cornual gestational sac under the guidance of ultrasound. Laparoscopic cornual resection and selective uterine artery embolization is another treatment option when uterine preservation is desired [9-11]. One of the major advantages of conservative treatment of cornual pregnancy is the preservation of

fertility and its disadvantage includes the risk of uterine rupture in subsequent pregnancy. Traditionally after rupture, treatment is usually the emergency laparotomy with hysterectomy or cornual resection. The scar left by cornual resection may play an important role in future childbearing. The larger is the resection; bigger would be the subsequent scar comparable to that of a classical cesarean section or extensive myomectomy. Therefore patients who have had extensive cornual resection should be delivered preferably by an elective C -section.

In our case, as the diagnosis was made in advanced weeks of pregnancy, the uterine cornu (Right) was found ruptured with massive haemorrhage in the abdominal cavity. Therefore, cornual resection with right salpingectomy was done. Early diagnosis of ectopic pregnancy is the cornerstone in reducing the morbidity and mortality from ectopic pregnancy

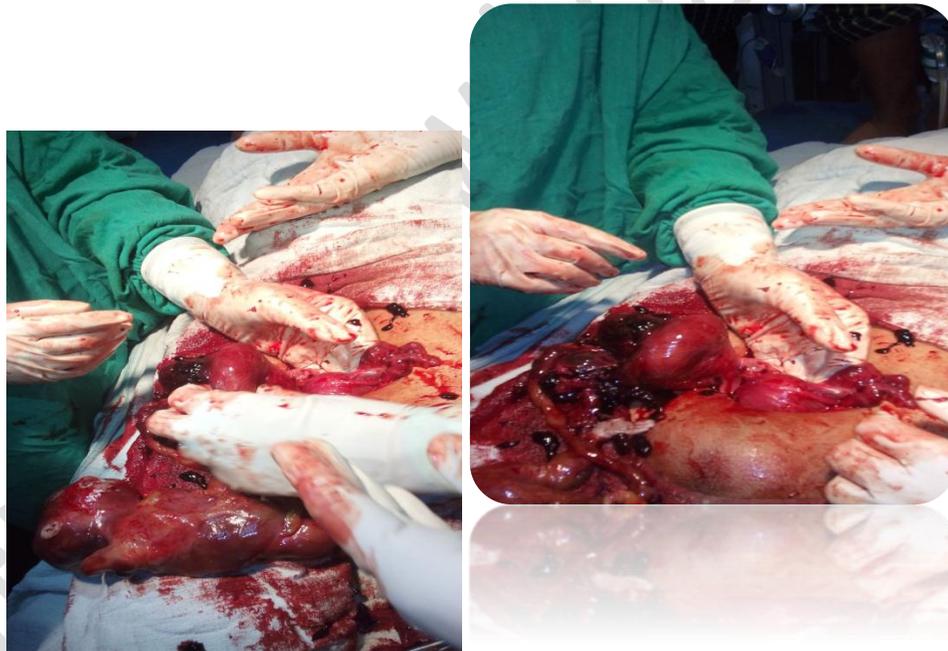


Fig (1): Image of fetus and placenta in right ruptured corneal ectopic pregnancy

IV. References

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