

A Ruptured Cornual Ectopic Pregnancy at 17 Weeks Gestation : A Case Report

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Abstract

Cornual pregnancy is a specific variety of ectopic gestation which occurs in the rudimentary horn of the uterus. It often ruptures later than other tubal pregnancies because the myometrium is more distensible than the fallopian tube. Traditionally, the treatment is cornual resection (removal of rudimentary horn) or hysterectomy

where the pedicle is short and the attachment is wide. Here, we report a case where cornual pregnancy was diagnosed at 17 weeks of gestation after uterine rupture and profound haemorrhage. The patient underwent laparotomy followed by cornual resection with salpingectomy.

(Birdem Med J 2013; 3(2): 50-51)

Introduction:

Cornual pregnancy is a rare form of ectopic pregnancy. Interstitial pregnancies account for 2-4% of ectopic pregnancies and 20% of cases that advances beyond 12 wks of gestation ends in rupture¹. As pregnancy location is within the myometrium there is greater room for expansion and rupture occurs characteristically during the fourth or fifth gestation². It is very difficult to make a diagnosis of cornual pregnancy before rupture. We report a case where cornual pregnancy was diagnosed at 17 weeks of gestation after uterus rupture and profuse intra-abdominal haemorrhage.

Case Report:

A 22 yrs old lady admitted in our hospital with history of severe abdominal pain and sweating for 5 hours at 17 weeks of gestation. Her temperature recorded 96⁰F, pulse rate was 115 beats/min and blood pressure was 80/50 mm Hg. The lower abdomen

was slightly distended and tender. She was severely anaemic and dehydrated. She had gestational diabetes mellitus at 11 weeks of pregnancy. She gave a history of spontaneous abortion at 10 weeks of pregnancy 2 years ago. Initial laboratory tests included Haemoglobin was 7 gm% ; haematocrit was 22.6 % and platelet count was within normal limit. On abdominal ultrasonography, uterus found normal in size, endometrial cavity was empty and a 17 weeks old dead fetus was in the abdominal cavity with massive free fluid. An emergency laparotomy was performed under general anaesthesia with transfusion of 3 bags of fresh blood. There was approximately 3000 ml of blood in the abdominal cavity with a 16 cm male fetus protruded from ruptured right cornual region of the uterus. Placenta adherent to right horn of uterus which was ruptured. Left fallopian tube and both ovaries were normal. Right horn of the uterus with right tube was dissected and bleeding was secured. Perioperatively she received in total 4 units of blood. A drain tube was kept in peritoneal cavity which was removed on 3rd postoperative day. The postoperative period was uneventful and she was discharged on 6th postoperative day.

Discussion

Cornual pregnancy is the least frequent variety of ectopic pregnancy and its occurrence is rare. The etiologic factors for cornual pregnancy are pelvic inflammatory disease, tumour, a high number of transferred embryos, a transfer near the uterine horn, excessive pressure on the syringe during the transfer, or difficulties during the ET procedure³. Bilateral

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Received: November 11, 2012 **Accepted:** December 31, 2013

salpingectomy is likely to be another risk factor for cornual pregnancy⁴. Peri- and intratubular adhesions, related or not related to endometriosis, are an additional risk factor. Some authors also consider the quality of the embryos and the hormonal milieu at the moment of transfer as possible causes⁵.

In general, ectopic gestation is rarely diagnosed before rupture or haemorrhage takes place. Cornual pregnancy is diagnosed with ultrasonographical criteria in the presence of a positive hCG level indicating pregnancy⁶. 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. It has been also used transvaginal three-dimensional ultrasound scanning with its capacity to reproduce the coronal plane of the uterus⁷. So, 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 the diagnosis of 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 is some medical treatment options, such as medical management with applied by parental route or directly injection of methotrexate or potassium chloride into the cornual gestational sac with ultrasonography guidance, laparoscopic cornual resection and selective uterine artery embolization when uterine preservation is desired^{7,8,9}. One of the major advantages of conservative treatment of cornual pregnancy is the preservation of fertility and the key disadvantages is the risk of uterine rupture in subsequent pregnancy¹⁰.

Traditionally after rupture, treatment is laparotomy with hysterectomy or cornual resection. The scar left by cornual resection may play an important role in future childbearing. The larger resection, more the scar is comparable to that of a classical Cesarean section or extensive myomectomy. So, that patients who have had extensive cornual resection should be delivered preferably by elective Cesarean section¹¹.

U. Ince et al. report a case where cornual pregnancy was diagnosed by ultrasonography at 18 wks of gestation after uterine cornual rupture and profound haemorrhage. During laparotomy, the cornua was found to be largely ruptured with massive haemorrhage in the

abdominal cavity. Therefore no other conservative methods seemed to be possible, then the patient underwent hysterectomy¹².

In our case, because of the advanced condition of the pregnancy, the uterine cornu(Right) was found to be ruptured with massive haemorrhage in the abdominal cavity. So, cornual resection with right salpingectomy was done.

Early diagnosis of ectopic pregnancy is the cornerstone in reducing the morbidity and mortality from ectopic pregnancy.

References

1. Ian S, Tulandi T. Conservative medical and surgical management of interstitial ectopic pregnancy. *Fertile Steril*.1999; 72: 207-15.:
2. Jung W, Lee S, O. Chung: Unruptured Cornual Pregnancy: A Case Report. *Yonsei Med. Journal*. Vol. 16, No. 1, 1975.
3. Chang Y, Lee JN, Yang CH, Hsu SC, Tsai EM: An unexpected quadruplet heterotopic pregnancy after bilateral salpingectomy and replacement of three embryos, *Fertil Steril* 2003;80:218-20.
4. Agarwal SK, Wisot AL, Garzo G, Meldrum DR : Cornual pregnancies in patients with prior salpingectomy undergoing in vitro fertilization and embryo transfer, *fertile steril* 1996;65:659-60.
5. Pan HS, Chuang J, Chiu SF, Hsieh BC, Lin YH, Tsai YL, et al. Heterotopic triplet pregnancy: report of a case with bilateral tubal pregnancy and an intrauterine pregnancy. *Hum Reprod* 2002;17:1363-66.
6. Graham M, Cooperberg PL: Ultrasound diagnosis of interstitial pregnancy: findings and pitfalls. *J Clin Ultrasound* 1979;7:433-37.
7. Valsky DV, Hamani Y, Verstandig A, Yagel S : The use of 3D rendering, VCI-C, 3D power Doppler and B-flow in the evaluation of interstitial pregnancy with arteriovenous malformation treated by selective uterine artery embolization. *Ultrasound Obstet Gynecol* 2007; 29: 352-55.
8. Tulandi T, Vilos G, Gomel V: Laparoscopic treatment of interstitial pregnancy. *Obstet Gynecol* 1995; 83: 465-67.
9. Woodland MB, Depasquale SE, Molinari JA, Sagullo C: Laparoscopic approach to interstitial pregnancy. *J Am Assoc. Gynecol Laparosc* 1995;3: 439-41
10. Moon HS , Choi YJ, Park YH, Kim SG: New simple endoscopic operations for interstitial pregnancies. *Am J Obstet Gynecol* 2000; 182: 114-21.
11. Felmus, L.B. Pedowitz, P: Interstitial pregnancy. *Am. J. Obst. And Gynae.* 1958;66:127. 66:
12. U. Ince, M.A. Osmanagaoglu, H. Bozkaya A Gynaecology ruptured cornual ectopic pregnancy at 18wks gestation: A case report. *The Journal of and Obstetrics*. 2008 Vol. 9; 1-2:p-5.