

A CASE REPORT OF ADVANCED UNRUPTURED CORNUAL PREGNANCY

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ABSTRACT

Ectopic pregnancy is one of the major causes of maternal morbidity and mortality. Cornual pregnancy is a rare type of ectopic pregnancy where the gestational sac is implanted in the cornua part of the tube, it's more dangerous than other types of ectopic pregnancies, and contributes a significant amount of maternal mortality and morbidity. Here a case report is presented where a patient was admitted to a rural hospital and with a diagnosis of missed abortion. Treated with Misoprostol and later referred where laparotomy was done after transvaginal ultrasound diagnosis

KEYWORDS: Cornual pregnancy, unruptured ectopic, Ectopic pregnancy

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INTRODUCTION

Cornual pregnancy is one of the rare form of ectopic pregnancy. Although it is an unusual problem with an estimated rate of 2-4% of all ectopic pregnancies it carries the major risk of maternal morbidity and mortality rate of 2-2.5% which is the highest compared to other types of ectopic pregnancies (1). We report a case of unruptured cornual pregnancy at 17+4 weeks GA.

CASE REPORT

A 25year old G II P I mother at GA of 17+4 weeks presented to our emergency OPD with referral from rural hospital. One week back she was diagnosed with second trimester missed abortion and she was counselled on option of the management and she opted for elective medical termination of pregnancy. At the referring hospital, she was put on 400 micrograms of misoprostol for a total of five doses every 6 hours. Since there was no expulsion the dose was repeated on the third day and on fifth day but still there was no expulsion. Then she was referred to our tertiary Hospital.

Upon presentation to our hospital, she was having mild lower abdominal pain with history of minimal vaginal spotting. On examination, she was hemodynamically stable with lower abdominal tenderness more on the right lower quadrant and asymmetric right lower abdomen palpable uterus of 16 week sized. On pelvic examination, the cervix was closed and there was cervical motion tenderness. There was 16 week sized asymmetric uterus palpated more on the right side.

Transvaginal ultrasonography revealed an empty uterus with minimal endometrial clot, and a-10 by 10 cm eccentrically located gestational sac at the right cornua with well-formed 15week fetus with negative heartbeat. No free fluid in the peritoneal cavity seen.

After informed written consent was taken, under general anesthesia, the abdominal cavity was entered via mid line infra-umbilical incision. There were distended right cornua of the uterus measuring 12cm by 10 cm size with health looking bilateral fallopian tubes and ovaries (Fig 1). Resection started and right round ligament and utero-ovarian ligament clamped, cut and transfixed, the broad ligament opened and right uterine artery ligated after identifying the right ureter. Purse-string stitch applied

at the junction of the uterus and the gestational sac to decrease bleeding. Cornual resection is done at the base of the gestational sac circumferentially maintaining the myometrium at the base of the cornua. The pregnancy resected intact and the defect was explored and there was no communication to the uterine cavity. The defect closed in three layers with Vicryl 2.0. The estimated blood loss was 100ml and the patient left OR with stable vital signs. The patient is counseled for elective cesarean delivery for subsequent pregnancy.



Fig 1: Intraoperative findings and cornual resection for advanced cornual pregnancy

DISCUSSION

Although cornual ectopic pregnancy accounts for 2 to 4% of ectopic pregnancies, it is associated with 15 times higher morbidity and mortality compared to other types of tubal pregnancies. Cornua is the part of the fallopian tube which is 1 – 2 cm in length and 0.7 cm in width, which is supplied by Sampson's artery, which is connected to both the ovarian and the uterine arteries.

Sometimes Cornual pregnancies can be confused with angular pregnancies; the latter, however, are located within the endometrial cavity, medial to tubo-endometrial junction. A cornual pregnancy is a rare type of pregnancy and it is more dangerous than other types of ectopic pregnancies, as they tend to grow larger and rupture later because of the myometrial stretchability with potentially devastating hemorrhages.²

Risk factors for ectopic pregnancies include Pelvic inflammatory disease, IUCD use, tubal surgery, SIN (salpingitis isthmica nodosa), endometriosis, Assisted Reproductive technologies, previous ectopic pregnancies and congenital uterine anomalies. The key to better outcome is early diagnosis and management which heavily relies on ultrasound evaluation. The USG criteria for making a diagnosis includes an empty uterine cavity, a gestational sac which is separate from the uterine cavity and a myometrial thinning of less than 5mm around the gestational sac, typically the interstitial line sign, an echogenic line from the endometrial cavity to the corner which is next to the gestational mass, is seen³. The case presented here fulfilled all the USG criteria for the diagnosis. Other diagnostic tools include 3D US and MRI, the latter can better demonstrate the eccentric location of the gestational sac⁴.

The treatment options of cornual ectopic pregnancy could be conservative or surgical, which is mainly dependent on early recognition of the ectopic pregnancy. Conservative management includes systemic methotrexate and local injection of methotrexate or potassium chloride to the gestational sac. In cases of cornual pregnancy some settings use a strict criteria which includes; early gestation, diameter <4 cm, serum beta Human Chorionic Gonadotropin (hCG) of <10,000 IU/l and no evidence of rupture is used. This medical option could have a failure rate of up to 35%⁵. The traditional surgical management of cornual ectopic

was laparotomy with cornual resection or hysterectomy. Currently a more conservative laparoscopic approaches including laparoscopic cornuostomy (incision of the cornual region), or cornuectomy (resection of the cornual region of the uterus and the suturing of the incision site) have been reported. The current trend is to use conservative surgical alternatives to cornual resection in an attempt to increase future fertility and decrease the risk of uterine rupture during a subsequent pregnancy. These conservative surgical treatments successfully used combination of hysteroscopic, laparoscopic and ultrasound guided transcervical evacuation of interstitial ectopic pregnancy⁶.

Successful treatment of cornual ectopic with bilateral uterine artery embolization has also been reported⁷. Although the place of laparotomy for cornual ectopic pregnancy is decreasing as medical practice is advancing, it is important to remember that it is still important in cases with ruptured ectopic pregnancy or with advanced pregnancy, like the case reported here. There are reports of successful pregnancy after cornual resection, but delivery should be by cesarean section because of risk of uterine rupture⁸.

CONCLUSION

Cornual ectopic pregnancy is still a major cause of maternal morbidity and mortality compared to other types of ectopic pregnancies. It is also a challenge in diagnosis and management. Although there are different conservative and less invasive surgical approaches, laparotomy still remains an integral part of surgical management of cornual pregnancy.

CONFLICT OF INTEREST:

The authors declare that there is no conflict of interest regarding the publication of this paper.

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