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Case Study

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RUPTURED CORNEAL ECTOPIC PREGNANCY: A CASE REPORT

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ABSTRACT

Cornual pregnancy is an ectopic pregnancy in which the egg implants in the uterine horn. It accounts for 2% of all ectopic pregnancies. Transparietal ultrasonography potentially fails to diagnose horn pregnancy. It is only discovered late, at the stage of rupture, putting the patient's vital prognosis at risk. Endovaginally ultrasound enables early detection of horn pregnancy. Management is poorly codified, potentially guided by the clinical state. we report the case of a horn pregnancy diagnosed intraoperatively.

KEYWORDS: Cornual pregnancy, interstitial pregnancy, angular pregnancy, ectopic pregnancy, hemoperitoneum, Cornuotomy.

INTRODUCTION

Cornual pregnancy is rare of ectopic pregnancies. Cornual localization, defined by the implantation of a gestational sac in the horn of a uterus.[1]

The diagnosis is potentially made in the presence of a sudden onset of hemoperitoneum.[2] Endovaginal ultrasonography is an excellent method of diagnosis, enabling early detection.

Treatment of cornual EPs is poorly codified and is most potentially guided by the clinical situation. It may be medical, with intramuscular injections[2,3], or surgical, with cornual resection[4] or cornuotomy[5] in the event of hemorrhagic rupture. Its prognosis is therefore more critical than that of classic tubal EP.

We report a case of Ruptured corneal ectopic pregnancy collected in the Department of Gynecology-Obstetrics Oncology and High-Risk Pregnancy at the Rabat Maternity Hospital.

By analyzing this observation and the data available in the literature, we will review the epidemiological and the different clinical pictures of this pathology, the contribution of ultrasound in approaching its diagnosis, the possible therapeutic management modalities and the evolutionary aspect of corneal pregnancy.

CASE PRESENTATION

The patient was a 27-year-old nulliparous woman who had consulted an emergency department for intense pelvic pain in the context of amenorrhea. Questioning revealed a 2-day history of onset. There was no notion of fever or vaginal bleeding associated with the symptomatology. The patient's medical and surgical history was unremarkable. The pregnancy was estimated at 5 weeks amenorrhea according to the date of the last menstrual period. Examination revealed an unstable general condition, with blood pressure at 70 mmHg systolic and 45 mmHg diastolic. heart rate was 115 beats per minute. The patient was very asthenic, algic and pale skin and mucosae. Temperature was 36.8. Abdominal examination revealed abdominal distention associated with pelvic tenderness, on vaginal touch, the cervix was median and closed, the lateral cul-de-sacs were painful, pain on mobilization of the uterus and the doigtier came back clean. The uterus was difficult to appreciate because of the abdominal pain. On speculum examination, the cervix and vaginal wall were macroscopically healthy.

Urinary and serum B-HCG tests were positive. Pelvic ultrasonography revealed an empty uterus and a non-embryonic gestational sac of five weeks' amenorrhea localized at the uterine fundus lateralized to the left dependent on the uterine horn at a distance of the uterine cavitary, with an abundant intra-abdominal effusion in all four quadrants (Figure 1).

The patient was rapidly transferred to emergency surgery for exploratory laparotomy after preparation by the intensive care unit for probable ectopic pregnancy with massive hemoperitoneum. On exploration, a very

abundant hemoperitoneum was observed and a hemorrhagic left cornual pregnancy (Figure 2). The mass was excised with saline lavage, The uterine margins were very hemorrhagic; we proceeded to suture the margins with a vicryl N°1 reinforced with U-shaped hemostasis stitches. the procedure was completed by abdominopelvic lavage-aspiration with isotonic serum. Treatment requires uterine expulsion of the pregnancy, hemostasis of the cornus and evacuate the hemorrhagic rupture. The technique is cornuotomy with suture.

Anatomopathological examination confirmed the diagnosis, post-operative follow-up was unremarkable and the woman was discharged after 3 days of hospitalization.

DISCUSSION

The majority of ectopic pregnancies occur in the fallopian tube (95%)[6], ectopic pregnancy (EP) represents 1-3% of pregnancies.[7] Cornual localization, defined as the implantation of a gestational sac in the uterine horn, occurs in 2% of cases of EP.[1]

The term cornual was initially used to describe ectopic implantation in a rudimentary horn in the case of a bicornuate uterus, or in the lumen of a tubal stump. Because of the identical prognosis, and a distinction based on anatomopathological diagnosis, the term cornual has been extended to all angular and interstitial pregnancies.[8]

The risk factors for tubal localization and cornual EP are comparable. There isn't a single element that is unique to cornual gestation. Nonetheless, a history of salpingectomy and post-AMP conception increase this localization.

The signs of a ruptured cornual pregnancy are a distended abdomen with sensitive declive dullness; exquisite pain in the cul-de-sac of Douglas; scapular pain; hypovolaemic shock related to the haemorrhage (rapid or thready or impregnable pulse, very low or impregnable blood pressure, tachypnoea, pallor, sensation of cold, clammy skin, restlessness and anxiety).[3,4,5]

According to the ACR Appropriateness criteria[9], the first-line imaging modality in the evaluation of patients with a positive urine or serum pregnancy test presenting with first trimester vaginal bleeding is pelvic ultrasound.

The ultrasound diagnosis of horn pregnancies is well known. There are three essential criteria, according to Timor-Tritsch[10]: an empty uterine cavity, a gestational sac separated by more than 1 cm from the uterine cavity, a myometrial corona around this sac. All authors agree that endovaginal ultrasound is the best method for exploring cornual pregnancies.[11] Magnetic resonance imaging (MRI) is the most accurate alternative for the positive and topographical diagnosis of rare forms of EP when the patient is hemodynamically stable.[12]

A ß-hCG level greater than (≥ 2,000-2,200mIU/mL IRP) in the absence of intrauterine pregnancy is highly suggestive of ectopic pregnancy, evidence has been provided against the reliability of the discriminative ß-hCG level, making imaging assessment more important.[13] For some authors, beta HCG levels are potentially higher in horny pregnancies than in tubal EPs.[11]

The diagnosis is potentially made in the presence of a sudden appearance of hemoperitoneum.[2] As in the case reported.

A cornual ectopic pregnancy is considered as nonviable since it typically cannot result in a live-born child, with the extremely rare exception of six case reports of interstitial pregnancies that have achieved fetal viability and have been published in the literature.[14]

If the pregnancy goes on, rupture and consequent death of the fetus and possibly the mother are practically universal, even though the enhanced distensibility of this fallopian tube segment can cause presentation as late as the 16th week of gestation.[6] Because there is a chance of bleeding from the uterine arteries and veins, a ruptured cornual ectopic pregnancy is a surgical emergency with a 2-fold mortality rate compared to other tubal ectopic pregnancies.[6]

The treatment of cornual EPs is poorly codified and is potentially guided by the clinical presentation. It may be medical options include methotrexate most often administered intramuscularly[13] and imaging-guided options include percutaneous administration of methotrexate or potassium chloride in ectopic gestation, with medical treatment being more effective the earlier the diagnosis. Or surgical management in the case of haemorrhagic rupture. The surgical techniques include cornuostomy, salpingotomy, cornual resection, cornual wedge resection, mini-cornual excision, and hysterectomy by laparotomy or laparoscopy.[13]

On the other hand, therapeutic abstention and monitoring is an option in asymptomatic unruptured cornual ectopic pregnancy with falling serum β-hCG levels indicating ongoing spontaneous abortion.[15]

According to some authors, hysteroscopy can be used both for operational procedures (resecting trophoblastic tissue under ultrasound control) and for diagnostic purposes (verifying the coronal placement.[8]

In contrast to tubal localization, there is no score to determine the success of medical treatment for horn pregnancies.[16] Thus, treatment, whether medical or surgical, is not codified. no study has compared

therapeutic abstention, medical treatment with methotrexate and surgical management.

After conservative treatment[8], proximal tubal obstruction has been described by some authors, Cases of uterine rupture have been reported, following coronal resection in subsequent pregnancies. Fertility and subsequent obstetrical prognosis appear to be good regardless of treatment.

CONCLUSION

Although rare, horn pregnancy is an ectopic pregnancy of unusual location with a very severe prognosis that needs to be identified at an early stage. It is potentially diagnosed on pelvic ultrasound, but if discovered late at the stage of rupture, it can be life-threatening.

Figure 1: Pelvic ultrasound performed transabdominally showing a non-embryonic gestational sac of five weeks' amenorrhea localized at the uterine fundus lateralized to the left dependent on the uterine horn at a distance of the uterine cavitary line.

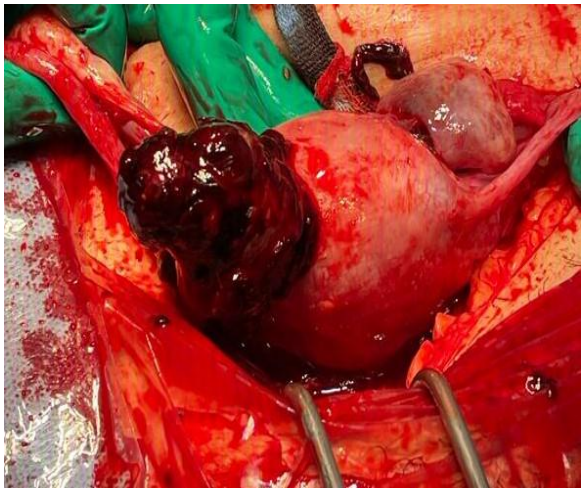

Figure 2: Left cornual pregnancy seen during exploratory laparotomy.

REFERENCES

1. Bouyer J, Coste J, Fernandez H, Pouly JL, Job-Spira N. Sites of ectopic pregnancy: a 10-year population-based study of 1800 cases. Hum Reprod, 2002; 17(12): 3224–30.
2. Lau S, Tulandi T. Conservative medical and surgical management of interstitial ectopic pregnancy. Fertil Steril, 1999; 72: 207–15.
3. Tanaka T, Hayashi H, Kutsuzawa T, Fujimoto S, Ichinoe K. Treatment of interstitial ectopic pregnancy with methotrexate: report of a successful case. Fertility, 1982; 37(6): 851–2.
4. MacRae R, Olowu O, Rizzuto MI, Odejinmi F. Diagnosis and laparoscopic management of 11 consecutive cases of cornual ectopic pregnancy. Arch Gynecol Obstet, 2009; 280(1): 59–64.
5. Vicino M, Loverro G, Resta L, Bettocchi S, Vimercati A, Selvaggi L. Laparoscopic cornual excision in a viable large interstitial pregnancy without blood flow detected by color Doppler ultrasonography. Fertil Steril, 2000; 74(2): 407–9.
6. Dahnert W. Radiology Review Manual, 6th ed. Phildelphia: Lippincott, Williams & Wilkins, 2007.
7. Barnhart KT. Clinical practice. Ectopic pregnancy. N Engl J Med., 2009; 23(4): 379–87 [361].
8. Nikodijevic K, et al. Grossesse extra-ute´ rine cornuale : prise en charge, fertilite´ ulte´ rieure et devenir obste´trical. Gyne´ cologie Obste´trique & Fertilite´ (2015), http://dx.doi.org/10.1016/j.gyobfe.2015.10.011
9. (ACR) ACoR. ACR Appropriateness Criteria on First Trimester Bleeding. In:http://www.acr.org/~/media/ACR/Documents/AppCriteria/Diagnostic/FirstTrimesterB leeding.pdf
10. Timor-Tritsch IE, Monteagudo A, Matera C, Veit CR. Sonographic evolution of cornual pregnancies treated without surgery. Obstet Gynecol, 1992; 79: 1044—9.
11. N'Goran Kouame∗, Anne-Marie N'Goan-Domoua, Roger-Daniel N'Gbesso, Abdul-Kader Keita. Grossesse cornuale : une entité rare de grossesse extra-utérine. Imagerie de la Femme, 2011; 21: 68—71.
12. Poncelet E, Leconte C, Fréat-Martinez E, Laurent N, Lernout M, Bigot J, et al. Aspect échographique et IRM de la grossesse extra-utérine. Imag Femme, 2009; 19: 171—8.
13. Arleo Elizabeth Kagan, DeFilippis Ersilia M., Cornual, Interstitial, and Angular Pregnancies: Clarifying the Terms and a Review of the Literature, Journal of Clinical Imaging (2014), doi: 10.1016/j.clinimag.2014.04.002
14. Hill AJ, Van Winden KR, Cook CR. A true cornual (interstitial) pregnancy resulting in a viable fetus. Obstet Gynecol, 2013; 121: 427-430.
15. Stiller RJ, de Regt RH. Prenatal diagnosis of angular pregnancy. J Clin Ultrasound, 1991; 19: 374-376.
16. Fernandez H, Lelaidier C, Thouvenez V, Frydman R. The use of a pretherapeutic, predictive score to determine inclusion criteria for the non-surgical

treatment ofectopic pregnancy. Hum Reprod, 1991; 6(7): 995–8.