

Patient with Heterotopic Pregnancy: case report

Abstract:

Heterotopic pregnancy corresponds to the association of an intrauterine pregnancy with an extrauterine pregnancy, regardless of its location. Its incidence is high in advanced age, due to the greater likelihood of an infectious gynecological history. Diagnosis remains difficult, due to its puzzling symptomatology. Pelvic ultrasound is the complementary examination that usually leads to the diagnosis. Treatment of heterotopic pregnancies aims to eliminate the ectopic pregnancy while preserving the intrauterine pregnancy as far as possible, and to limit the risk of recurrence. Maternal prognosis is comparable to that of simple ectopic pregnancies, with a mortality rate of less than 1%. We report the observation of a 38-year-old woman, with no notion of medically assisted procreation, who was admitted to the emergency department for hemodynamic instability associated with pelvic pain + minimal blackish metrorrhagia. The diagnosis of heterotopic pregnancy was confirmed on ultrasound. Our patient underwent right salpingectomy, and delivery took place at 37 weeks' amenorrhea, giving birth to a healthy child.

Introduction :

Heterotopic pregnancy (GH) is defined by the simultaneous presence of an intrauterine pregnancy (GIU) and an extrauterine pregnancy (GEU). These are bi-ovular twin pregnancies in which one of the nests is in the uterine cavity and the other is ectopic, usually in the fallopian tube. The first case was reported by Duvernet in 1708 during an autopsy [1]. In the literature, the frequency of heterotopic pregnancies in spontaneous cycles is 1/30,000 [2,3] and 1/100-1/500 in MAP [2]. This frequency has risen sharply in recent years due to the development of MAP techniques and the resurgence of upper genital infections. This is an often unrecognized pathology that poses a diagnostic problem and can be life-threatening. We report the case of a GH, a right ampullary pregnancy, associated with an intrauterine pregnancy which proceeded without anomalies, resulting in vaginal delivery at 37 weeks' amenorrhea, giving birth to a healthy child.

Case report :

The patient was 38 years old, G3P2 (2EV/AVB), with a pregnancy estimated at 7 SA according to precise DDR, with no notable pathological ATCDS, admitted for pelvic pain evolving for 3 days + T1 metrorrhagia.

Clinical examination found conscious patient hypotensive to 80/40 mmhg, tachycardic to 125bpm, conjunctivae slightly discoloured.

Gynaecological examination found minimal blackish bleeding from the endocervix on speculum, with TV, pain on uterine mobilization with positive douglas cry and blackish blood on removal of finger pad,

Pelvic ultrasound revealed a heterotopic pregnancy with an intrauterine gestational sac containing a vitelline vesicle with an embryonic button whose measurements corresponded to 7 SA+2 days, with an oblong right latero-uterine image suggestive of a hematosalpinx with a medium-sized effusion.



Figure 1: Pelvic ultrasound revealing hematosalpinx

An emergency laboratory work-up revealed a hemoglobin level of 8g/dl, with a positive BHCG level of 10200.

Due to hemodynamic instability and strong ultrasound suspicion of EP, the patient was rushed to the operating room for exploratory laparotomy, where a ruptured EP was discovered at the ampullary level of the right tube. Given the impossibility of preserving the tube, a right salpingectomy was performed, with aspiration of the hemoperitoneum estimated at 400cc.

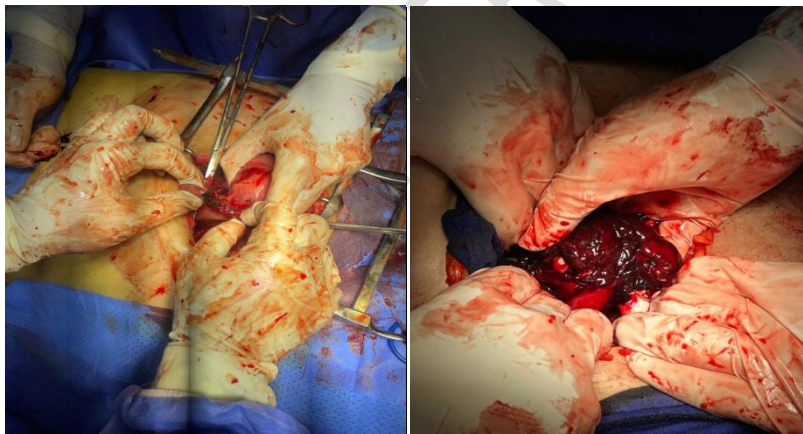


Figure 2: Ruptured right ampullary pregnancy

Pathological examination confirmed the presence of an ectopic pregnancy.

The patient was put on progestin therapy: 200mg 2*/dr.

An ultrasound examination was carried out within 10 days of the operation, showing an evolving intrauterine monofetal pregnancy at 8 weeks gestation. The pregnancy proceeded without anomalies and a vaginal delivery took place at 37 weeks' amenorrhea, giving birth to a healthy male child.

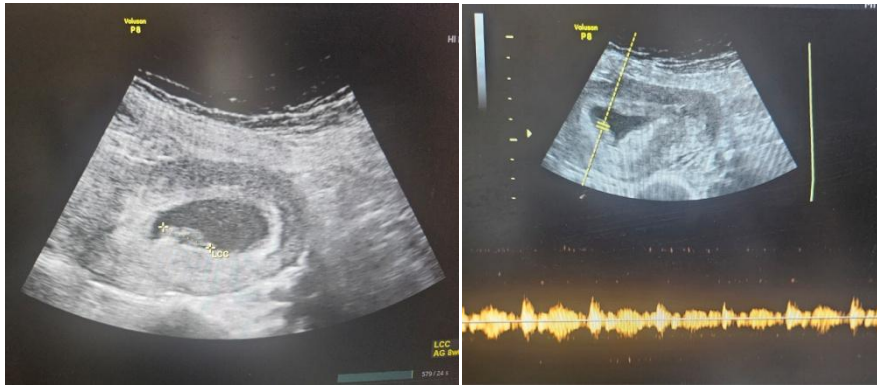


Figure 3: Pelvic ultrasound revealing evolving intrauterine monofetal pregnancy at 8 weeks gestation

Discussion :

Heterotopic pregnancy is the association of a GIU with an EP. The frequency of heterotopic pregnancies varies from series to series. The rate varies from 1/30,000 in spontaneous pregnancies to 1/100 in medically assisted reproduction. (3) In our patient, the pregnancy occurred spontaneously.

The incidence is higher in older women, as a history of gynaecological infection is more likely. (3) Our patient was 38 years old.

Ultrasound remains the imaging modality of choice in pregnancy. MRI – in selected patients, has another advantage due to its excellent soft-tissue contrast without the use of ionizing radiation(8).

The reference treatment remains laparoscopy, which confirms the diagnosis and allows the patient to be treated at the same time (3). Laparotomy remains indicated if the hemodynamic state is unstable, and this is what our patient benefited from.

Realistic and practical approaches in HP with one of the pregnancies in the tube are performing a laparoscopy (preferred option) or laparotomy (depending on the clinical condition and expertise) and undertaking a salpingectomy (usually if the other tube is normal) or salpingotomy (7). Another advantage of the surgical approach is that laparoscopy (or laparotomy) can confirm the diagnosis in addition to providing a definitive treatment.

T.Ali et al. Described a 22-year-old primigravida lady with spontaneous pregnancy was presented by increasing lower abdominal pain for 5 days with brownish vaginal discharge, nausea, and vomiting episodes. Trans-abdominal and endovaginal ultrasound was performed and revealed a viable intrauterine pregnancy of 8 weeks and 1 day, associated with a heterogeneous complex right adnexal mass. MR imaging revealed a right adnexal mass intimately anterior to the normal right ovary. Laparoscopy was done; it revealed a distended right fallopian tube with pregnancy while the right ovary was not seen (impeded in the pouch of Douglas), and right salpingectomy was done. The specimen was sent for histopathology. The patient tolerated the procedure well and was then taken to the recovery room in stable

condition. The histopathological report confirmed the diagnosis of ectopic pregnancy(4). Our patient was admitted with pelvic pain evolving for 3 days and T1 metrorrhagia. Pelvic ultrasound revealed the presence of a heterotopic pregnancy, and the management plan was to perform a right salpingectomy by laparotomy in view of hemodynamic instability.

F.JAVANMANESH et al. Reported a case of a 25-year-old pregnant woman with abdominal pain and nausea and vomiting, gestational age was 8 weeks and 3 days. She was pregnant without the use of any drugs for induction of ovulation. By ultrasound examination, an intrauterine gestational sac with a sub chorionic hematoma 30mm in its periphery was visible. Gestational age based on Crown-rump length (CRL) of 22mm was 9 weeks with fetal heart rate (FHR) and yolk sac and a fetus in left adnexa had CRL of 21mm or 8 weeks and 6 days without FHR. In the periphery of the adnexal sac was the collection 62×58×68mm (left hematosalpinx). There was moderate fluid in the pelvis and peritoneal cavity. Because of acute abdomen and high suspicious of heterotopic pregnancy laparotomy was performed and in the peritoneal cavity was 1000cc blood and 500cc clot in around of left adnexa and in cul-de-sac. Left fallopian tube was ruptured and bleeding. Left salpingectomy and peritoneal washing were performed (5). Our management is aligned with this case given that our also benefited from emergency laparotomy salpingectomy.

A 38-year-old woman presented to the emergency department with an increasing lower abdominal pain for 5 days, brownish vaginal discharge, nausea, and episodes of vomiting. She has a body mass index of 32 kg/m² and previously had 4 normal uncomplicated deliveries. The current pregnancy was a spontaneous conception, with no assistance. She had no previous history of relevance, no history of pelvic inflammatory disease, and was a non-smoker. She was not using any contraception. On presenting to our emergency, she was vitally stable and apart from some tenderness in both adnexa, the abdominal and vaginal clinical examination was unremarkable. Laboratory investigations revealed a serum β-hCG of 169,863 mIU/ml. Transvaginal ultrasound was performed using an endocavitary 5–9 MHz transducer. Grayscale ultrasound confirmed by color dopplers revealed a viable intrauterine pregnancy of 9 weeks and 5 days and a heterogeneous complex left adnexal mass suggestive of being a HP. The ovaries were unremarkable, and a small pelvic fluid collection was also seen. MRI study revealed a left adnexal rounded mass lesion (56 × 35 × 46 mm) intimately anterior to the normal left ovary, displaying a mixed hyper- and hypo-intense signal at T1 and T2 WI. It had a thick wall showing a high T2 signal. This increased our suspicion towards the presence of an ectopic pregnancy in the left tube. After careful counseling and informed consent, the patient was taken to the operating theatre. Under general anesthesia, a laparoscopy was performed which revealed a distended left fallopian tube. The other (right) tube and both ovaries were unremarkable. A left salpingectomy was performed, and this was sent for histopathological assessment. The postoperative course was uneventful, and the patient was discharged home after confirming the viability of the intrauterine pregnancy (6). In the case of our patient, the diagnosis was made solely by ultrasound, and the management was to perform a right salpingectomy by laparotomy.

Conclusion:

Heterotopic pregnancy is a very rare condition that requires a high index of clinical suspicion. Ultrasound remains the imaging modality of choice in diagnosing a heterotopic pregnancy,

Salpingectomy rather than salpingotomy via laparoscopy should be the treatment of choice in most heterotopic pregnancies with the extrauterine pregnancy in the tube(6).

Références :

1-Diagnostic et prise en charge d'une grossesse hétérotopique spontanée : cas clinique et revue de la littérature
Diagnosis and management of a spontaneous heterotopic pregnancy:
Case report and literature review

Author links open overlay panelYassine Smiti^{a b}, Anass El Bouti^{a b}, Khaoula Sibbou^{b c}, Nazik Allali^{b c}, Siham El Haddad^{b c}, Latifa Chat^{b c}, Anas Saoud Tazi^{a b}

2-Grossesse hétérotopique : à propos d'un cas et revue de la littérature
Heterotopic pregnancy:
A case report and review of the literature

Author links open overlay panelRadhouane Achour, Sana Ghades, Khaled Neji

3-Laghzaoui Boukaïdi M, Bouhya S, Sefrioui O, Bennani O, Hermas S, Aderdour M.
Grossesses hétérotopiques : à propos de huit cas. *Gynecol Obstet Fertil* 2002;30:218—23.

4- ALI, Tamer, TAWAB, Mohamed A., ELHARIRI, Mona Abdel Ghaffar, *et al.* Heterotopic pregnancy: a case report. *Egyptian Journal of Radiology and Nuclear Medicine*, 2020, vol. 51, p. 1-4.

5- JAVANMANESH, Forough et MOEINI, Mina. Heterotopic Pregnancy: A Case Report. *Journal of Obstetrics, Gynecology and Cancer Research*, 2022, vol. 3, no 3, p. 133-135.

6- ABDELMONEM, Ahmed H., SAYED, Gamal, ABUGAZIA, Abd Elwahid, *et al.* Heterotopic pregnancy after a spontaneous conception a case report with a review of clinical, laboratory and imaging findings. *Clinical Case Reports*, 2021, vol. 9, no 8, p. e04649.

7- HUTCHINSON, Marie et CHAN, Cynthia. Laparoscopic management of ruptured heterotopic pregnancy after intrauterine insemination. *CMAJ*, 2016, vol. 188, no 17-18, p. E525-E527.

8- KATAOKA, Milliam L., TOGASHI, Kaori, KOBAYASHI, Hisataka, *et al.* Evaluation of ectopic pregnancy by magnetic resonance imaging. *Human reproduction*, 1999, vol. 14, no 10, p. 2644-2650.