

Abdominal ectopic pregnancy - a case report and a review of the literature

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Abstract

Ectopic pregnancy is one of the most important emergencies of obstetrics and gynecology. We present a case of a 32-year-old female patient clinically and paraclinically diagnosed with a complicated ectopic abdominal pregnancy. A emergency laparoscopy was made and afterwards methotrexat treatment was initiated.

Keywords: ectopic pregnancy, abdominal pregnancy, methotrexate

Introduction

Ectopic pregnancy, defined as the implantation and development of a blastocyst outside the uterine cavity, is one of the most important emergencies of obstetrics and gynecology⁽¹⁾.

It has a prevalence between 6-16% of all pregnancies⁽²⁾ and it is associated with high incidence of inflammatory pelvic disease, endometriosis and assisted reproductive techniques (ART)^(2,3). The majority of the ectopic pregnancies are located in various segments of the fallopian tubes (95%), abdominal ectopic pregnancy representing only 1% of all cases⁽⁴⁾.

Current therapeutic conduct is based on early diagnosis and treatment. A hemorrhage caused by an ectopic pregnancy remains the first and most important cause of maternal death in the first trimester of pregnancy (6% of all maternal deaths)⁽⁵⁾.

Case report

We present the case of a 32-year-old female patient, known with: hypertension stage II (untreated), two anamnestic episodes of pelvic inflammatory disease (7 and 5 years prior this admission, treated with doxycycline and non-steroidal anti-inflammatory drugs) and with a previous pregnancy stopped evolving at 14 weeks of gestation (2 years prior this admission, cause undetected by usual screening tests: TORCH negative, antiphospholipid syndrome absent, normal hematological probes). At admission the patient presented 11 weeks amenorrhea with b-HCG of 56.800 mUI/dl, was no febrile, hemodynamically stable (BP of 110/60 mmHg, HR of 75 bpm), mobile and slender abdomen, painless spontaneously or to palpation, normal haemogram and urinary tests.

Local examination revealed: normal vaginal walls, long posterior closed cervix, uterus in intermediary position, diameters of 7/6 cm, with regular shape, soft consistent on palpation, rectouterine pouch of Douglas firm, with a round-oval 4/4 cm tumor, sensitive to palpation, no vaginal bleeding at that time (although the patient experienced small vaginal bleeding during the last month, prior to the admission).

The ultrasonographic examination shows uterus in intermediary position, regular shape, homogenous myometrium, endometrium with hyperechoic images, posterior to the uterus a round-oval shaped tumor - with medium gestational sac diameter of 28 mm, a visible embryo inside with no cardiac activity, without vitelline vesicle, a blade of free fluid measuring 1.2 cm in the Douglas pouch (Figures 1 and 2). These findings raised the suspicion of an 8 weeks ectopic pregnancy stopped in evolution and the patient is admitted in our clinic for an emergency laparoscopy. Biomoral constants were normal at the time of hospital admission.

Emergency laparoscopy revealed: normal uterus and normal left tube and ovary, right fallopian tube and ovary in close adherence with the round oval tumor, which seems implanted on the sigmoid wall, descending on the rectum and the posterior side of the uterus, about 50 ml of red blood in Douglas pouch (Figure 3). An embryo was expressed from the round-oval tumor on mobilization. Then adhesiolysis was performed and the trophoblastic debris were carefully taken off the surrounding tissues: the wall of the sigmoid, posterior uterine surface, pavilion tube region. Due to the intimate adherence of trophoblastic structures and the high risk of bleeding, small fragments could not have been removed. The distal right tube region was resected, lavage of the peritoneal cavity, haemostasis and drainage of the Douglas pouch were performed.

The postoperative evolution had no incident. However, due to the trophoblastic debris deeply inserted in the sigmoid wall, rectum wall and the posterior side of the uterus, b-HCG was dosed in the first 2 days after surgery. Considering the levels of 1550-1500 mUI/ml b-HCG found and the risk of bleeding under these circumstances methotrexat treatment was initiated, according to the Romanian Society of Obstetrics and Gynecology (RSOB) guide: 1 mg/kg im at 2 days. Under methotrexat b-HCG level diminished progressively, in the 10th day after surgery the b-HCG level was under 200 ng/ml.

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Figure 1. Endometrium with hyperechoic images (white arrow). Gestational sac posterior to the uterine cavity (red arrow)



Figure 2. Visible embryo (white arrow). Fluid blade in the pouch of Douglas (red arrow)



Figure 3. Blood plating the pouch of Douglas (white arrow)

Discussion

A history of pelvic inflammatory disease has an important role in the pathogenesis of ectopic pregnancy. One acute episode of salpingitis rises the risk of pelvic inflammatory disease about 7 times, a special role starring *Chlamydia trachomatis*^(6,7).

Ectopic abdominal pregnancy is defined as the implantation of a blastocyst in the peritoneal cavity, and represents 1% of all ectopic pregnancies. ART increases this percentage to 1.4%⁽²⁾. An ectopic abdominal pregnancy can be primary - from the first time the blastocyst inserted into the peritoneal cavity, or secondary - referred as a 'tube abortion'⁽⁸⁾ first time inserted into the fallopian tubes and then expelled into the peritoneal cavity with reimplantation.

It is important to note that due to the high risk of bleeding an ectopic abdominal pregnancy increases the maternal mortality for about 7.7 times compared to any other ectopic pregnancy⁽⁹⁾.

When an ectopic pregnancy is diagnosed it is important also to note if it is a complicated or no complicated type, the approach in both cases being different⁽¹⁰⁾.

Transvaginal ultrasound examination is the highest sensitivity and specificity probe in the protocol of diagnosis⁽⁹⁾. Afterwards, although medical technology has greatly advanced, quick diagnosis of an ectopic pregnancy remains a challenge.

The particularity of this case lies in the absence of any kind of symptoms or changes in laboratory tests in a patient with complicated ectopic abdominal pregnancy. Maternal risk was high both because atypical location

with hard diagnosis (it is known that some ectopic abdominal pregnancy evolves until higher gestation ages) and the high risk of bleeding due to the debris of trophoblast deeply inserted into the sigmoidian wall, rectum wall and posterior surface of the uterus. Another feature was the need to apply 3 doses of Methotrexat according to the RSOB guide in order to normalize b-HCG levels.

Conclusions

Although it appears that global risk of ectopic pregnancy is now increasing due to modern life and the risk of sexually transmitted infections, the risk of ectopic abdominal pregnancy remains low. The use of ART brings several points in favor of this kind of pathology from 1% to 1.4%^(6,8,11-14). Abdominal ectopic pregnancy is often a complicated tube pregnancy, representing a tube abortion. Even in this condition it remains a pathology that requires emergency surgical management, the maternal mortality remaining high despite the progress in medical technology.

About 30% women treated for an ectopic pregnancy will have difficulty in terms of getting a subsequent normal pregnancy. The rate of recurrence after one ectopic pregnancy varies between 5-20% and increased with 32% after a second episode⁽¹²⁾.

As regarding the methods of prevention the ectopic pregnancies one of the main goals remains the reduction of the pelvic inflammatory disease in fertile woman and to give a greater importance to the diagnose and treatment of infections with *Chlamydia trachomatis*. ■

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