v. 5, n. 16, 2025

International Journal of Health Science

Acceptance date: 09/04/2025

ECTOPIC PREGNANCY AND ITS CLINICAL COURSE: CASE REPORT

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Abstract: Ectopic pregnancy is characterized by implantation of the blastocyst outside the endometrial cavity. Among the variants, ovarian pregnancy accounts for less than 3% of cases, challenging both diagnosis and clinical management (1). Early recognition is essential, as its evolution often results in rupture (2). Differentiation from hemorrhagic cysts and adnexal masses requires detailed examinations and correlation with β-hCG dosage. Treatment can be medicated or surgical, depending on factors such as embryonic viability. This report describes the case of a patient who presented with heavy vaginal bleeding associated with abdominal pain. A transvaginal ultrasound showed an ectopic gestational sac in the left ovary. Management with methotrexate was chosen, but the persistence of increased hormone levels and subsequent visualization of an embryo with cardiac activity made it impossible to continue. In view of the therapeutic failure, laparotomy was indicated. This case highlights the need for close monitoring and reinforces the importance of early diagnosis of ectopic pregnancy for appropriate management.
Keywords: Abdominal pain; Pregnancy Complications; Ultrasonography; Pregnancy, Ovarian; Pregnancy, Ectopic;

CASE REPORT

A 25-year-old female patient with migraine with visual aura since the age of 17, overweight, non-smoker and non-alcoholic, Jehovah's Witness, using combined oral contraceptives (Cyproterone Acetate + Ethinyl Estradiol). She reported an episode of vaginal bleeding, with the need to go to the emergency room due to the amount of bleeding, bright blood, associated with severe abdominal pain.

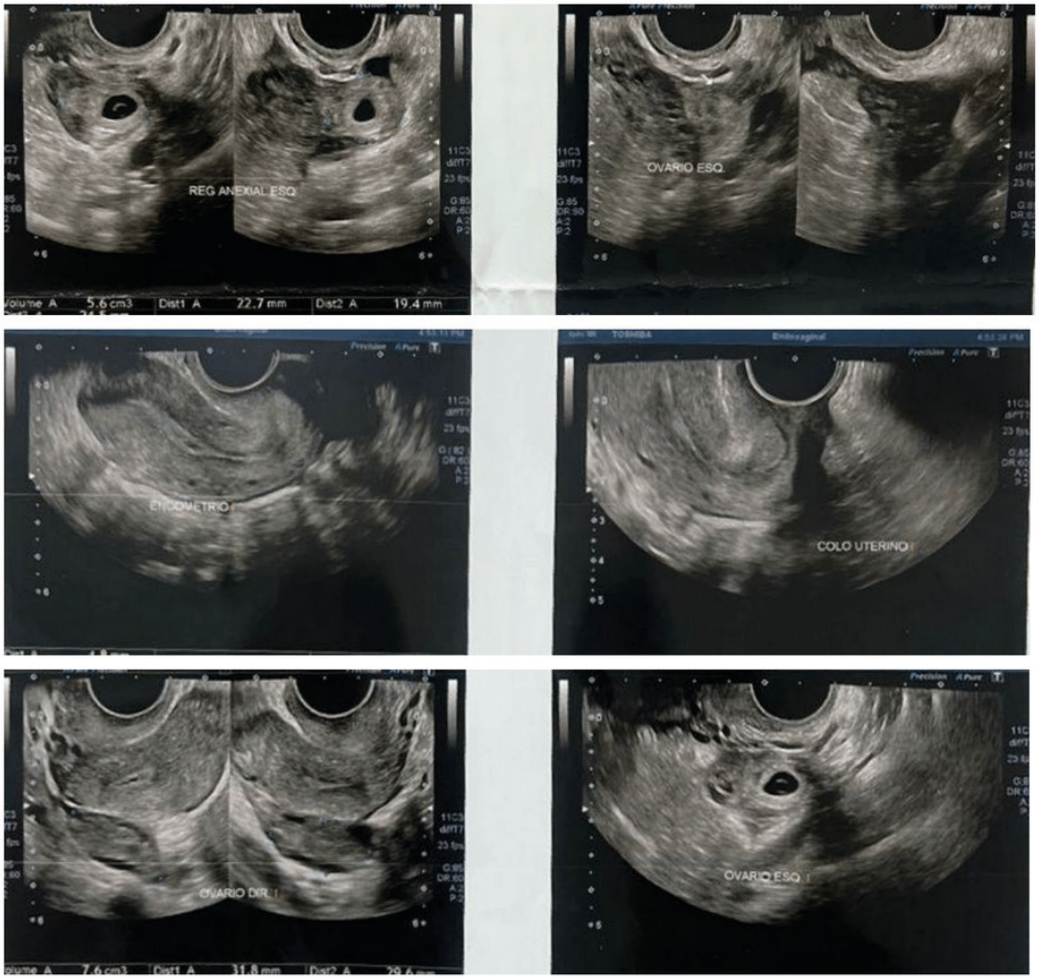
During the condition, the patient presented with an associated hypertensive peak, with a measured pressure of 220/130mmHg on admission, pain on deep abdominal palpation,

DOI https://doi.org/10.22533/at.ed.1595162524036

with signs of peritoneal irritation. Laboratory and imaging tests showed that the patient had an ectopic pregnancy, she also had a positive serology for syphilis through a rapid test, denying previous treatment, and was treated with benzathine penicillin. Laboratory tests carried out later showed serological scarring, Fta-Abs IgG antibodies (IFI/syphilis): reactive, Fta-Abs - IgM antibodies (IFI/syphilis): non-reactive.

Transvaginal ultrasound showed a hyperechoic, centered and homogeneous endometrium, measuring approximately 7.1mm in total thickness, a left ovary with regular contours and preserved echotexture, with the presence of an anechoic image measuring up to 1.3cm and a 0.3cm yolk sac located in the left ovary suggestive of an ectopic gestational sac, with no embryo identified - measurements of the left ovary: 3.7x2.9x3.5cm. The decision was made to use methotrexate, serial ultrasound scans and to monitor the case during hospitalization. Quantitative beta-HCG was performed at the beginning of the episode with a result of 2954 mIU/mL, two days later, during hospitalization, a result of 4069 mIU/mL, six days after hospitalization a result of 6500 mIU/mL, serial quantitative beta-HCG showed a progressive increase in values even with the adequately intervened use of methotrexate.

A transvaginal ultrasound carried out around 3 days later showed a left ovary containing an image of a single embryo measuring 2.2x1.9x2.4cm, containing a gestational sac with regular contours, an image of a single embryo measuring 3.2mm CCN (head-neck length) and visible cardiac activity during the examination. She was advised to stop taking methotrexate as she was now contraindicated.



DOI https://doi.org/10.22533/at.ed.1595162524036

The next transvaginal ultrasound showed a topical left ovary, with regular contours and preserved echotexture. In the left tubal situation, a gestational sac was identified with an estimated average diameter of around 1.1cm, a yolk sac with the usual configuration measuring 0.3cm, an embryo with a rhythmic heartbeat with a frequency of 116bpm, and a head-neck length (HNL) of 0.38cm.

It is therefore believed that, with the use of the drug, the embryo migrated to the region of the uterine tube, since the transvaginal ultrasounds previously requested clearly showed a single embryo measuring 2.2x1.9x2.4cm, containing a gestational sac in the left adnexal region.

Laparotomy was indicated due to ectopic pregnancy.

A biopsy carried out after the surgery confirmed a ruptured ectopic pregnancy, describing a fallopian tube measuring 7.5x3.0x2. 5cm, with a lumen filled with hemorrhagic material and blood clots adhered to the wall.

DISCUSSION

Ectopic pregnancy is defined as implantation of the blastocyst outside the uterine cavity. Around 95% of cases occur in the fallopian tube, while less than 3% of ectopic pregnancies implant in the ovary (3). Although ovarian ectopic pregnancy is rare, the risk of morbidity and mortality is high (4). Selected studies address different risk factors associated with ectopic pregnancy, including a history of previous gynecological surgeries such as cesarean sections or tubal surgeries, genital infections, the use of intrauterine contraceptives (IUDs), the advanced age of the pregnant woman, lifestyle factors such as smoking and the use of illicit drugs, endometriosis and hormonal disorders such as polycystic ovary syndrome (PCOS) (5). The presentation of ovarian ectopic pregnancy is similar to tubal ectopic pregnancy, and can lead to abdominal pain and/or vaginal bleeding at the beginning of pregnancy. However, a higher proportion of ovarian ectopic pregnancies manifest with collapse and hemodynamic instability due to significant hemoperitoneum. One study found that 80% of cases of ovarian ectopic pregnancy showed hemoperitoneum on ultrasound, while another study found that up to 30% of patients developed circulatory collapse (6).

The etiology of ovarian ectopic pregnancy is unknown. Its diagnosis, as with tubal ectopic pregnancy, requires the integration of anamnesis, physical examination, investigation by imaging tests, when indicated, and hCG dosage. Diagnostic confirmation is made by histopathological examination (4).

The efficacy of treatment with methotrexate has not yet been established and, in general, its use is not very feasible. There are only a few case reports documenting its use (7). Surgical excision of the ectopic pregnancy, with preservation of the ovary, is the ideal approach. While oophorectomy should be reserved as a last resort in the event of uncontrollable bleeding (6).

Finally, it is worth noting that ectopic pregnancy is among the most common gynecological emergencies and one of the main causes of maternal mortality in early pregnancy (8). Furthermore, ectopic pregnancy is intrinsically related to significant risks of female infertility and recurrence, making it a worrying condition for women of reproductive age (9). Early detection and correct management are therefore crucial to improving clinical and reproductive outcomes.

CONCLUSIONS

Ectopic pregnancy is a high-risk condition, especially in cases of tubal rupture. Early diagnosis, through anamnesis, clinical examinations and imaging, is essential to prevent complications. In the case described, ultrasound was decisive in identifying tubal ectopic pregnancy, leading to surgical indication, whose biopsy confirmed the rupture of the fallopian tube and reinforced the seriousness of the condition.

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