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CASE REPORT
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ECTOPIC PREGNANCY AT 17 WEEKS: A CASE REPORT

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Abstract
Ectopic pregnancy remains a substantial cause of maternal morbidity and mortality, especially when it is diagnosed and managed at the advanced gestational age of 17 weeks. A 28-year-old woman presented to the emergency department with acute abdominal pain and signs of hypovolemic shock at 17 weeks' gestation. Physical examination revealed cervical excitation, adnexal tenderness, and hemoperitoneum on bedside imaging, which was consistent with the findings of ectopic pregnancy. The patient underwent emergency laparotomy, during which the ruptured ectopic pregnancy in the distal part of the right fallopian tube was identified, leading to the right salpingectomy. The patient had an uneventful recovery postoperatively. This case indicates that a high index of suspicion for ectopic pregnancy should be considered even at an advanced gestational age and that it is crucial to identify and intervene promptly to prevent unfavorable consequences. Future studies should focus on improving diagnostic algorithms, surgical techniques, and experience, as well as postoperative treatment to improve outcomes in this clinical setting.

Keywords: Ectopic pregnancy, gestational age, mortality

Introduction

Ectopic pregnancy is a challenging condition in obstetric practice in which a fertilized ovum implants outside the uterine cavity (1). The burden stemming from it is related to the potential for maternal morbidity and mortality. Although the most common location of implantation is the fallopian tube, ectopic pregnancy can also be implanted in the cervix, ovary, abdomen, or cesarean scar (2). The prevalence of ectopic pregnancy has been increasing in recent years due to the growing rates of pelvic inflammatory disease, assisted reproductive technologies, and delayed childbearing. In this regard, despite the recent advancements in diagnostic and management tools, ectopic pregnancies still account for 2% of all pregnancies globally (3). The incidence of the condition varies across different geographical areas and populations. The epidemiology of ectopic pregnancy is thoroughly researched to understand its risk factors, trends, and implications on maternal health (3, 4). The epidemiology reports the global incidence of 1.5-2.5% of all pregnancies occurring as ectopic. Identified facts that contribute to a higher risk of ectopic pregnancy development are previous EP, PID, tubal surgery, infertility, and ART. Additionally, smoking, an increasing maternal age, and STIs are linked to an elevated risk of developing EP.

A thorough understanding of ectopic pregnancy epidemiology is fundamental for developing preventive approaches and protocol optimization. Recent studies unveil the disparities in EP incidence

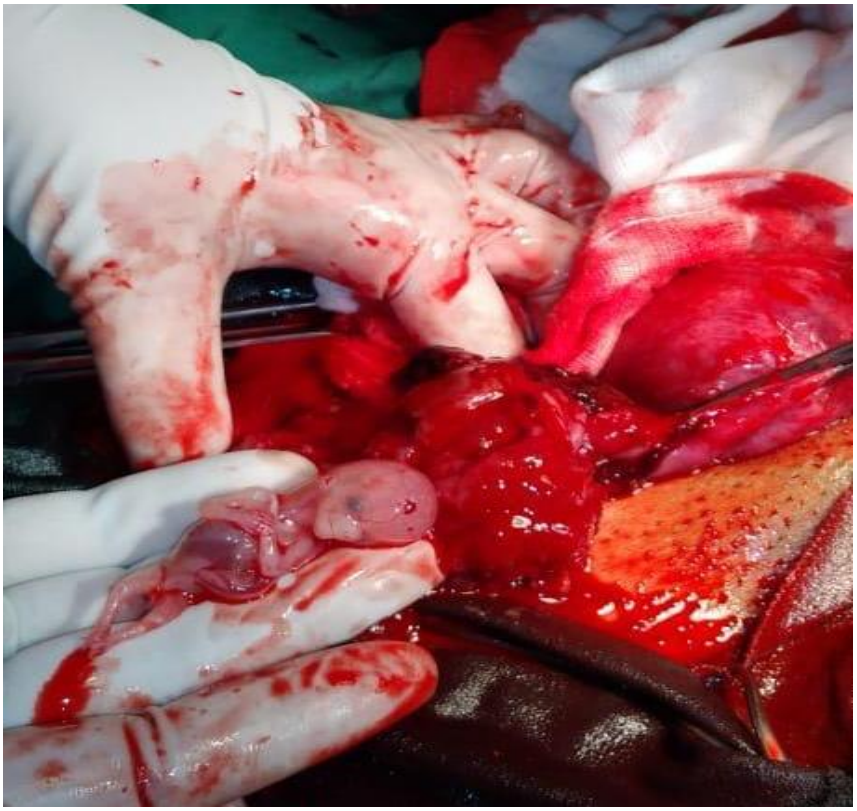
and outcomes based on different demographic groups. It shows the need for more targeted solutions in the field (5).

While a clinical evaluation, laboratory tests, and imaging studies are often necessary to diagnose an ectopic pregnancy, transvaginal ultrasound remains the cornerstone of ectopic pregnancy diagnosis due to its high sensitivity and specificity, especially in early gestation (6). Nonetheless, a transvaginal ultrasound has limited relevance in diagnosing cases of advanced gestational age or when imaging is inconclusive. Recent technological advancements have also made diagnosis possible even in the presence of inconclusive findings (7). For example, color Doppler ultrasound and MRI can help diagnose ectopic pregnancies when traditional imaging modalities support limitations or equivocality. Additional information about human chorionic gonadotropin and progesterone levels in the serum can help support the diagnosis of ectopic pregnancy when combined with clinical and imaging findings (8).

The management of ectopic pregnancy depends on patient presentation, hemodynamic stability, and desire for future fertility. When planning any management approach, surgical interventions such as laparoscopic salpingectomy or salpingectomy are the cornerstone of treatment, to remove the ectopic pregnancy while preserving tubal function when safe (9). Current guidelines emphasize the need for a multidisciplinary approach to managing ectopic pregnancies, involving medical, surgical, and psychological support to ensure optimal patient care and outcomes. Furthermore, advances in surgical procedures have made it possible to perform minimally invasive procedures or uterine-preserving measures that promote fertility with minimal morbidity in select cases (10).

Case presentation

A 28-year-old woman, gravida 4, para 3, at 17 weeks and 6 days of gestation, presented to the Accident and Emergency department with complaints of acute abdominal pain and signs of hypovolemic shock. She had no history of previous pelvic surgery or pelvic inflammatory disease (PID). Her past medical history was unremarkable. Upon assessment, her vital signs were as follows: blood pressure was 80/44 mmHg, pulse rate was 135 beats per minute, oxygen saturation was 98%, and respiratory rate was 16 breaths per minute. Physical examination revealed a tense and tender abdomen. Upon vaginal examination, cervical excitation was positive, and there was mild vaginal bleeding. Bedside imaging indicated hemoperitoneum, with an extrauterine pregnancy measuring approximately 12 cm in crown-rump length. Laboratory investigations revealed a hemoglobin level of 7 g/dL and a platelet count of 125 x 10^3/µL. Liver function tests (LFT) and urea and electrolyte (U&E) levels were within normal limits, as was the coagulation profile. Given the clinical presentation and imaging findings, an emergency laparotomy was performed, revealing approximately 3 liters of hemoperitoneum with a ruptured ectopic pregnancy located in the distal part of the right fallopian tube. Right salpingectomy was performed to manage the ectopic pregnancy. Additionally, gastric lavage was conducted during the procedure. Following surgery, the patient had a good postoperative recovery.



Discussion

Ectopic pregnancy is a common cause of maternal morbidity and mortality, especially when it occurs at such advanced ages as 17 weeks (11). The case study of a 28-year-old woman presented to the health care clinic at 17 weeks of gestation with acute abdominal pain and signs of hypovolemic shock is crucial. This case summary highlighted the importance of recognizing ectopic pregnancy as a potential differential, even at advanced pregnancy ages. Although 17 weeks' pregnancy ectopic is rare, this can present symptoms that mimic the intrauterine pregnancy but was unable to be diagnosed due to its rarity and unsuspicious signs over intrauterine pregnancy (12). There are recent studies in the literature indicate the growing importance of keeping a high index of clinical suspicion for ectopic

pregnancy based on the patient's presentation with abdominal pain, and vaginal bleeding, when the patient has confounding factors like a history of ectopic pregnancy, PID, or tubal surgery (13). Clinical signs examination such as cervical excitation and adnexal cervical approximation helps in early diagnoses of the gestational age of ectopic pregnancies and encourages the appropriate management approach (2). The diagnoses of 17 weeks for ectopic pregnancy pose many challenges in diagnosing through the lack of sufficient case scenarios and the inherent difficulty in diagnosing such late-gestational age of this rare case through transvaginal ultrasound. Although this is the initial step for identifying ectopic pregnancy and evidence-based diagnostics, it is considered the gold standard imaging modality for ectopic pregnancy; however, its reliability drops until almost entirely unable to diagnose when the gestational age advances and yields uncertain findings (14). In this case, at the patient's bedside, a pelvic ultrasound revealed hemoperitoneum, but the formal diagnosis was made, the patient could have other intraperitoneal hemorrhage during acute sickness. Therefore, the location and viability of ectopic pregnancies dictated the treatment modalities. Advanced imaging such as color Doppler or MRI could advocate near certainty of the diagnosis. Several management considerations guide the management of ectopic pregnancy with 17 weeks of pregnancy gestation, which include the degree of clinical presentations, hemodynamic stability, desire for fertility, and the patient’s general fitness for entering pregnancy. In cases of ectopic pregnancy with a high degree of suspicion and signs of hemodynamic instability, the surgery is the cornerstone to prevent adverse outcomes in the form of tubal rupture and massive haemorrhage (15). The surgical procedure comprises laparoscopic salpingectomy or salpingotomy to ensure the removal of affected tissue while preserving tubal function. In cases with advanced gestational age and signs of hemodynamic instability, laparotomy is choicely performed to ensure a line of effective means for control of bleeding. Recent guidelines and evidence-based practice focus on the multidisciplinary team of the medical and surgical approach to handle ectopic pregnancy by providing psychological support. Post-operative care included hall monitoring of the bleeding, infection, and tissue (16).

Conclusion

In conclusion, a 17-week ectopic pregnancy is a severe condition with a unique set of challenges in terms of diagnosis and management. A team of healthcare professionals must work collaboratively to provide effective care in this clinical scenario. Ectopic pregnancy should be considered a potential diagnosis in patients of childbearing age with a known risk factor, as early diagnosis is crucial. Ectopic pregnancy requires immediate action, and even more advanced cases may have favorable outcomes if the patient receives appropriate care and close monitoring. More studies are required to improve diagnostic systems, develop new surgical approaches, and refine post-surgical patient management strategies.

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