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Ruptured ectopic pregnancy with unusual presentation: a case report and review of the literature

Swati Singh[1], Elhadi Miskeen[2], Dalia Alqarni[3], Reema Alsaluli[3], Amirah Alqawba[3], Maha Alaklabi[3], Nawaf Alqarni[3], Shahad Alaklabi[3], Turki Alqarni[3], Lamis Almisha[3], Abdullah M. Alshahrani[4], Reyam Faisal[1], Turki Mohamed Alaklabi[3] & Abdullah Hassan Alhalafi[4]

[1]Department of obstetrics and gynecology, Mother and Child Hospital, Health Affairs, Bisha, Saudi Arabia.
[2]Department of obstetrics and gynecology, college of Medicine, University of Bisha, Bisha, Saudi Arabia.
[3]Medical student, college of Medicine, University of Bisha, Bisha, Saudi Arabia.
[4]Department of Family and Community Medicine, College of Medicine, University of Bisha, Bisha, Saudi Arabia.

ABSTRACT

Ectopic pregnancy is a life-threatening condition that occurs when a fertilized egg implants outside the uterine cavity. While the classical presentation involves abdominal pain, vaginal bleeding, and amenorrhea, atypical manifestations can pose diagnostic challenges and lead to delayed intervention. We presented a case of a 26-year-old G2P1+0 female with a history of cesarean section nine months ago. She gave with ten days of lower abdominal pain and brownish vaginal discharge but without the classical triad of symptoms. She exhibited signs of distress on examination, and her pulse and blood pressure were elevated. Transvaginal ultrasonography revealed an empty uterus with a heterogeneous area in the pouch of Douglas. A diagnosis of ruptured ectopic pregnancy was made based on clinical and imaging findings, and exploratory laparotomy confirmed a ruptured right tubal ectopic pregnancy.

Additionally, bleeding was observed from tissue attached to the lower posterior part of the uterus, which was excised during surgery. This case highlights the importance of considering atypical presentations of ectopic pregnancy and the necessity of timely diagnosis and intervention to prevent adverse outcomes. Healthcare providers should maintain a high index of suspicion for ectopic pregnancy, especially in women with positive pregnancy tests and pelvic symptoms, even without the classical triad.

Keywords: ectopic pregnancy, atypical presentation, ruptured ectopic, transvaginal ultrasonography, exploratory laparotomy

Address for correspondence:

Elhadi Miskeen, Head department of obstetrics and gynecology, college of Medicine, University of Bisha, Bisha, Saudi Arabia, Email: emiskeen@ub.edu.sa

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INTRODUCTION

Ectopic Pregnancy (EP) is a condition with potentially life-threatening consequences wherein the fertilized ovum implants outside the uterine cavity, typically within the fallopian tube [1]. EP comprises about 2% of all pregnancies, and ectopic pregnancy remains a significant factor contributing to maternal morbidity and mortality [2]. The typical presentation includes abdominal pain, vaginal bleeding, and a positive urine pregnancy test [3]. However, atypical presentations can often lead to diagnostic challenges and delay in appropriate management [4-6].

The rupture of an ectopic pregnancy is a critical complication that, if not promptly identified and treated, can result in substantial morbidity and mortality [7,8].

While the most common presentation of a ruptured ectopic pregnancy includes symptoms such as abdominal pain, vaginal bleeding, and amenorrhea, there are instances where the clinical presentation deviates from the typical pattern [9-11]. These unusual presentations can lead to diagnostic challenges, potentially delaying appropriate management and increasing the risk of adverse outcomes [12,13].

Ectopic pregnancy poses a substantial threat to maternal health and remains a prominent maternal morbidity and mortality cause, particularly in the first trimester of pregnancy [14].

Ectopic pregnancy is linked to significant maternal mortality, primarily attributed to the risk of rupture and subsequent intra-abdominal bleeding. An ectopic pregnancy rupture can lead to hemorrhagic shock, a life-threatening condition. Delay in diagnosis and treatment of a ruptured ectopic pregnancy can have devastating consequences for the mother. According to global estimates, ectopic pregnancies account for approximately 4-10% of all maternal deaths related to pregnancy [15] [16].

Beyond maternal mortality, ectopic pregnancy also contributes to significant morbidity [17,18]. Some cases may present atypical symptoms, such as brownish vaginal discharge or no symptoms, leading to diagnostic challenges [19].

Diagnosis and intervention delays can lead to complications like tubal rupture, necessitating surgical intervention, which may involve salpingectomy (removal of the fallopian tube) or other surgical procedures [20].

The likelihood of ectopic pregnancy is heightened by several risk factors, such as a history of previous ectopic pregnancy, Pelvic

Inflammatory Disease (PID), tubal surgery, infertility treatments, and the use of Intrauterine Devices (IUDs) [21,22]. Recognizing these risk factors early on and promptly evaluating women with compatible symptoms can facilitate early detection and management, reducing maternal mortality and morbidity [23,24].

Healthcare professionals must maintain a high index of suspicion for ectopic pregnancy, particularly in women of reproductive age presenting with abdominal pain or unusual pelvic symptoms. Timely recognition and intervention are critical to avoid complications and enhance patient outcomes.

This case report presents a unique and noteworthy case of a ruptured ectopic pregnancy with an unusual presentation. This report aims to highlight the importance of considering ectopic pregnancy in the differential diagnosis, even in the absence of classic symptoms, and to emphasize the significance of timely diagnosis and intervention in preventing complications.

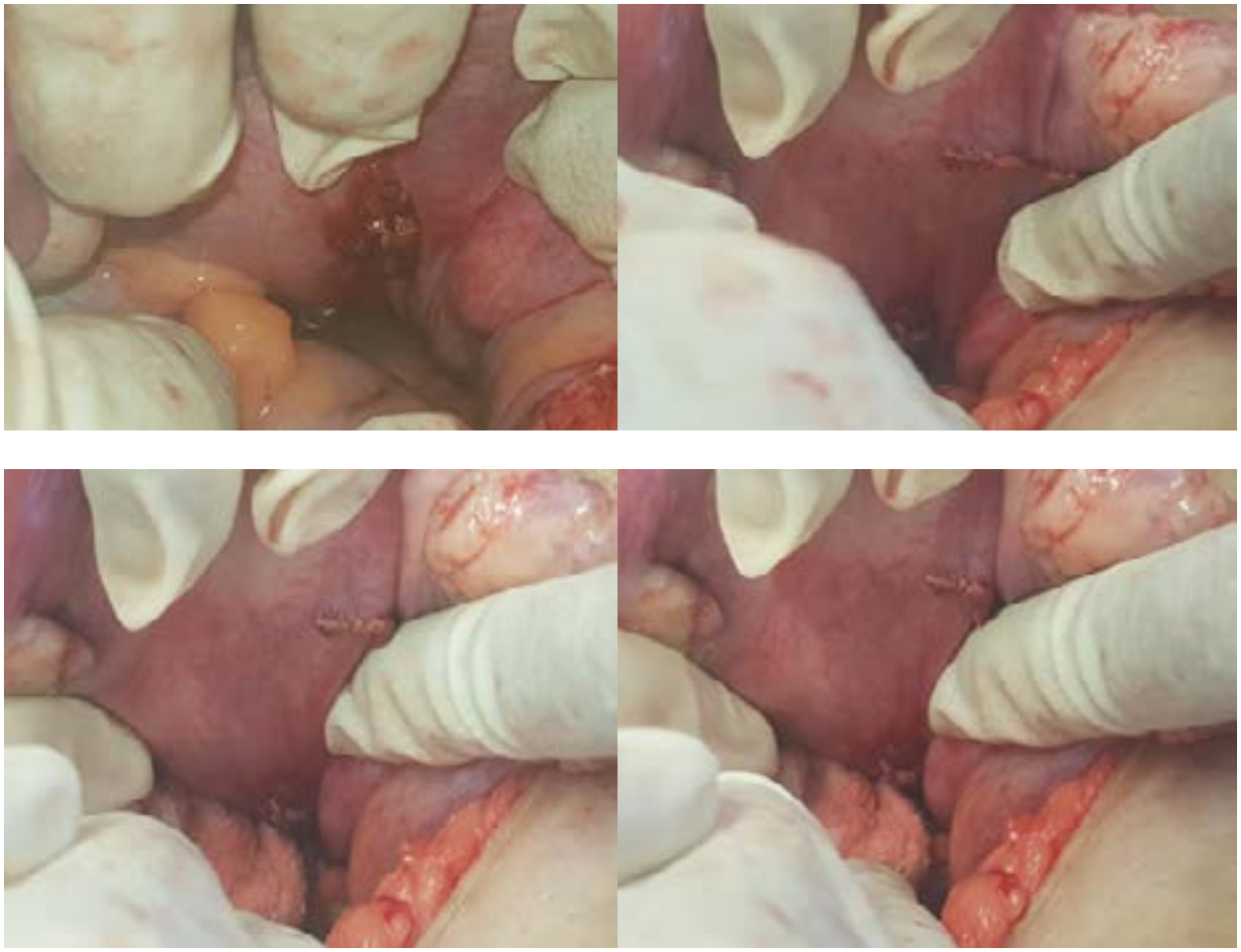
Through this case report, we hope to contribute to the existing knowledge on ectopic pregnancies, particularly those with atypical presentations, and raise awareness among healthcare professionals. By sharing this case, we aim to enhance the understanding of the clinical manifestations, diagnostic challenges, and management of ruptured ectopic pregnancies, ultimately improving patient outcomes and reducing the associated morbidity and mortality.

CASE PRESENTATION

We present the case of a 26-year-old G2P1+0 female who presented with lower abdominal pain and brownish vaginal discharge. Her history included a previous cesarean section and the last menstrual period was 25 days prior to presentation. The patient's initial vital signs were indicative of mild tachycardia, and she was noted to be in painful distress. Physical examination revealed marked tenderness in the suprapubic region, along with significant cervical excitation tenderness.

Diagnostic evaluation, including transvaginal ultrasonography and urine pregnancy testing, played a crucial role in reaching a definitive diagnosis. The ultrasonographic findings showed an empty uterus with a heterogeneous area in the pouch of Douglas, raising the suspicion of pelvic collection or pelvic hematoma. A positive urine pregnancy test and elevated serum Beta-Human Chorionic Gonadotropin (BHCG) levels (18826 miu/ml) further supported the diagnosis of ectopic pregnancy.

In our case, the ectopic pregnancy had ruptured, leading to significant intra-abdominal bleeding. Urgent exploratory laparotomy was performed, revealing an almost dislodged right fimbrial ectopic pregnancy with associated blood clots and blood in the peritoneal cavity. The patient underwent right salpingectomy due to the severity of the rupture. During the surgical procedure, the presence of soft brownish tissue attached to the lower posterior part of the uterus was noted, which was actively bleeding and required excision and serosal repair (Figure 1).



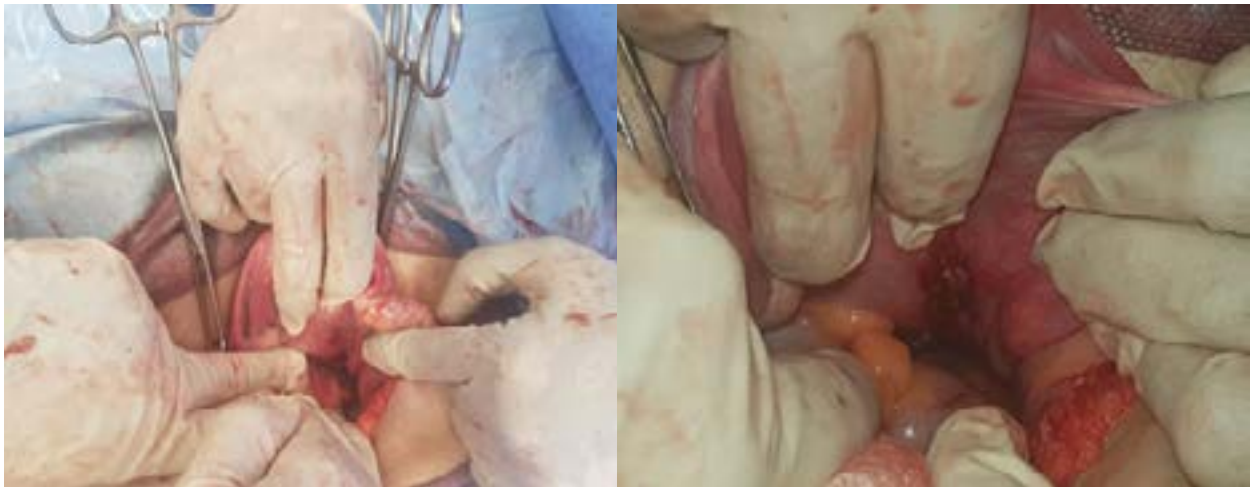


Fig. 1. Intraoperative findings

The histopathological examination of the excised tissue revealed chorionic villi and fetal tissue associated with the fallopian tube and fibrinous material with chorionic villi, confirming the diagnosis of ruptured ectopic pregnancy.

This case report highlights the significance of considering ectopic pregnancy in the differential diagnosis of women presenting with abdominal pain and vaginal bleeding, even in the absence of classical symptoms. It also emphasizes the importance of prompt diagnostic evaluation and surgical intervention in cases of ruptured ectopic pregnancies to prevent life-threatening complications and preserve fertility.

DISCUSSION

Ectopic pregnancy remains a critical obstetric emergency that significantly contributes to maternal mortality and morbidity, particularly in the early stages of pregnancy. Timely diagnosis, prompt intervention, and appropriate management are essential to prevent adverse outcomes. Healthcare providers must remain vigilant to ensure timely diagnosis and proper treatment, preserving maternal health and fertility, especially in cases with atypical presentations or risk factors.

The case of a ruptured ectopic pregnancy with an unusual clinical presentation highlights the significance of timely recognition and management of this potentially life-threatening condition. While the classical triad of abdominal pain, vaginal bleeding, and amenorrhea is commonly associated with ectopic pregnancy, this demonstrates the importance of considering atypical presentations to avoid diagnostic delays and potential complications.

In this case, the patient's atypical presentation, characterized by brownish vaginal discharge and insidious abdominal pain, made diagnosing ectopic pregnancy challenging. Similar atypical presentations have been reported in the literature, leading to diagnostic dilemmas and delayed intervention [25-27]. Medical professionals should maintain a vigilant approach and a high level of suspicion for ectopic pregnancy, especially in women of reproductive age with a positive pregnancy test and symptoms suggestive of pelvic pathology, even if they deviate from the classical triad.

Transvaginal ultrasonography played a crucial role in confirming the diagnosis in this case. However, it is essential to recognize that the lack of an intrauterine gestational sac on ultrasound does not rule out ectopic pregnancy, especially in early gestation. Serial beta-human chorionic gonadotropin (β-hCG) measurements and close clinical monitoring are essential in such scenarios to assess appropriate gestational sac development and evaluate β-hCG trends [28,29].

In this case, the prompt exploratory laparotomy and right salpingectomy were lifesaving, as the rupture had resulted in significant intra-abdominal bleeding. However, deciding to perform a salpingectomy requires careful consideration, especially in women desiring future fertility. Conservative surgical approaches, such as salpingostomy, may be considered to preserve the fallopian tube and fertility [30,31].

This case report has several clinical implications for healthcare providers involved in obstetric care. It emphasizes the need for a comprehensive clinical evaluation of women with pelvic pain and abnormal vaginal bleeding, even without classic symptoms. Prompt diagnosis and timely surgical intervention are critical in preventing adverse outcomes associated with ruptured ectopic pregnancies. Moreover, healthcare providers must be aware of the potential impact of surgical decisions on future fertility and consider individualized treatment plans for each patient.

CONCLUSION

The case of this ruptured ectopic pregnancy with an unusual presentation underscores the diagnostic challenges and management considerations associated with this obstetric emergency. Clinicians must maintain a high suspicion of ectopic pregnancy in women of reproductive age with compatible symptoms, even if they deviate from the classical triad. Prompt diagnostic evaluation, including imaging and serial β-hCG measurements, is vital in achieving timely intervention and preserving fertility when possible.

Ethical issues:
The patient gave informed consent before including her case in

the report. This includes explaining the report's purpose, how the patient's identity will be protected, and obtaining explicit permission to use her medical information for publication. We ensure the patient's privacy and confidentiality is of utmost importance. Any identifying information should be removed or anonymized to protect the patient's identity.

CONFLICT OF INTEREST

Elhadi Miskeen, a member of the editorial board of the journal, holds no involvement in the manuscript processing.

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