ISSN: 2755-015X

Journal of Surgery & Anesthesia Research

SCIENTIFIC Research and Community

Case Report

Open Access

Extra-Uterine Hydatidiform Mole: A Case Report

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ABSTRACT

The extra-uterine Hydatidiform Mole (MH) is an extremely rare condition, with only about twenty cases reported in the literature, primarily located in the fallopian tubes or ovaries. We report here the case of a 30-year-old patient, nulligravida and nulliparous, who presented to the emergency department with clinical signs suggestive of a ruptured c (EP). Clinical examination and imaging confirmed the presence of a mass in the right fallopian tube with significant hemoperitoneum, necessitating emergency surgical intervention. The patient underwent a salpingectomy, and histopathological analysis revealed a partial mole. This case highlights the rarity and diagnostic complexity of extra-uterine MH, which requires prompt management and rigorous monitoring of βHCG levels to ensure complete remission. Chemotherapy is reserved for cases with malignant progression.

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Received: June 03, 2026; **Accepted:** June 09, 2026; **Published:** June 16, 2026

Introduction

Hydatidiform Mole (HM) is a form of gestational trophoblastic disease resulting from abnormal fertilization and characterized by pathological proliferation of trophoblastic tissue. It is classically described as an intrauterine condition; however, extrauterine localization remains exceptionally rare. Indeed, fewer than twenty cases of hydatidiform mole with tubal or ovarian implantation have been reported in the literature to date [1,2].

Ectopic hydatidiform mole poses a major diagnostic challenge, as its clinical presentation often mimics that of a classic ectopic pregnancy, and preoperative suspicion is rarely raised. The diagnosis is usually established retrospectively by histopathological examination of the surgical specimen.

We report a rare case of partial hydatidiform mole occurring in a ruptured tubal ectopic pregnancy in a young woman, and we discuss the diagnostic and therapeutic implications of this exceptional condition.

Case Presentation

Mrs. J.O., a 30-year-old nulligravida and nulliparous woman, with no significant medical history and no history of contraceptive use, presented to the gynecological emergency department with a one-month history of amenorrhea. She complained of acute right iliac fossa pain associated with light vaginal bleeding for two days, accompanied by mild nausea and asthenia.

A serum β-hCG assay revealed a level of 2,000 IU/L. On admission, the patient was hemodynamically unstable, with a heart rate of 120 beats per minute, blood pressure of 80/50 mmHg, and profuse sweating. Gynecological examination showed light vaginal bleeding, tenderness in the pouch of Douglas, and a firm adnexal mass, without clearly palpable lateral uterine enlargement.

Transvaginal ultrasound demonstrated an empty uterine cavity, a heterogeneous mass within the right fallopian tube, and a large amount of free fluid in the pelvis. A diagnosis of ruptured ectopic pregnancy was established. Given the patient's hemodynamic instability, emergency laparoscopy was performed.

Intraoperatively, a ruptured right tubal pregnancy with massive hemoperitoneum was observed. Due to extensive tubal destruction, a right salpingectomy was carried out (Figure 1). The postoperative course was uneventful. Histopathological examination of the surgical specimen revealed features consistent with a Partial Hydatidiform Mole, characterized by hydropic villi and focal trophoblastic proliferation, with no evidence of choriocarcinoma (Figure 2).

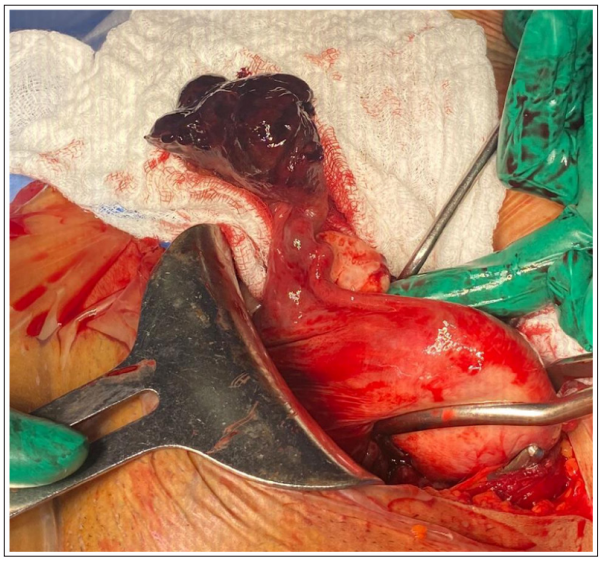

Figure 1: Ruptured Right tubal Ectopic Pregnancy

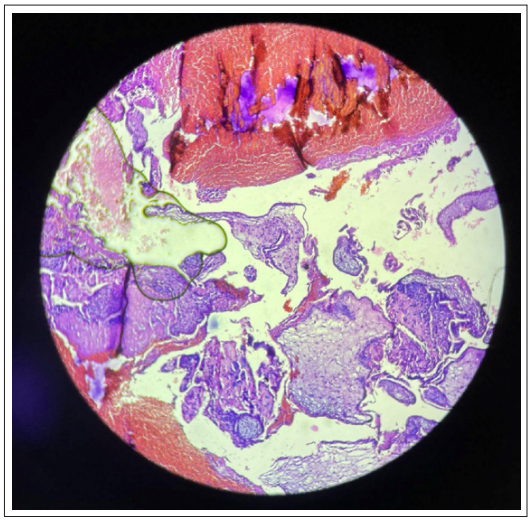

Figure 2: Histological Section of the Embryonic Hydatidiform Mole

Discussion

Ectopic pregnancy, also known as extrauterine pregnancy, is characterized by the implantation of the fertilized egg outside the uterus [3]. The most common form is tubal pregnancy. A hydatidiform mole is a type of gestational trophoblastic disease that occurs when an abnormal fertilization event leads to the growth of abnormal tissue in the uterus. It is characterized by the presence of swollen and cystic chorionic villi, forming clusters that resemble bunches of grapes. There are two types of hydatidiform mole: the partial mole, which is characterized by a mixture of molar and normal placental villi, and the complete mole, composed entirely of molar villi.

The occurrence of a hydatidiform mole in an ectopic site is extremely rare. This mole can form in the fallopian tubes, ovaries, or other areas of the pelvic cavity. This condition usually occurs in women of reproductive age [3]. Indeed, only about twenty cases of hydatidiform mole localized in the fallopian tubes or ovaries have been reported in the literature [1].

Hydatidiform mole is most often diagnosed in the first trimester of pregnancy, usually in the context of incomplete spontaneous abortion [4,5]. In 1953, Sutherland described an exceptional case of tubal hydatidiform mole associated with a normal intrauterine pregnancy [2-6]. In the article by Athanasiou et al. published in 2022, a case of complete molar pregnancy occurring in a ruptured ectopic pregnancy was described in a patient who presented with the classic symptoms of a ruptured ectopic pregnancy, such as severe abdominal pain and hemodynamic instability. Surgical exploration and pathological analysis revealed that it was, in fact, a complete hydatidiform mole, an extremely rare condition in an extrauterine context [7,8].

According to some authors, a diet low in vitamin A and animal fats, maternal age over 40, and a history of repeated spontaneous abortions appear to be risk factors for the development of a molar pregnancy [9]. In our observation, the patient had none of these risk factors.

The βHCG levels in extrauterine molar pregnancies may be slightly lower than those observed in intrauterine moles, probably due to insufficient vascularization related to implantation outside the uterine cavity [10]. The rupture of the fallopian tube or ovary generally occurs earlier in ectopic molar pregnancies than in classic ectopic pregnancies. This can be explained by the increased invasive potential of molar trophoblastic tissue in the adnexal epithelium compared to the trophoblast of an intrauterine mole [11]. In the studies by Sebire et al. and Devi et al., the diagnosis of the mole was confirmed by pathological examination, as it was not initially suspected, as was the case with our patient [12].

Although rare, it is most often a curable condition, requiring specialized care to maximize the chances of recovery [13]. Suction curettage remains the reference method for evacuating intrauterine hydatidiform moles, but for ectopic hydatidiform moles, treatment depends on several factors, including the location of the mole, the patient's hemodynamic stability, the possibility of conservative treatment, and the histopathological confirmation of the diagnosis [14].

In some cases where the mole is not invasive and the patient wishes to preserve her fertility, a more conservative approach may be considered, although this remains controversial and requires very strict monitoring [14].

After the evacuation of hydatidiform moles, it is crucial to monitor βHCG levels weekly until they become negative, then monthly for six to twelve months to ensure complete remission [1]. Finally, chemotherapy is only indicated in cases of gestational trophoblastic tumor, diagnosed by abnormal HCG levels. The commonly used chemotherapy agents include methotrexate and actinomycin D [12-14].

The use of imaging, such as MRI, may be recommended according to the 2016 study by Yamada, which discusses the diagnostic efficacy of MRI in evaluating the regression of extrauterine hydatidiform moles and monitoring potential complications. It highlights the importance of imaging for optimal management of complex cases of hydatidiform moles [15].

It is important to conduct a rigorous differential diagnosis in cases of ectopic pregnancy to identify rare cases such as hydatidiform mole. This approach helps prevent serious complications, including the persistence of gestational trophoblastic disease or the development of choriocarcinoma [13,15].

Conclusion

Extrauterine hydatidiform mole is an exceptionally rare condition, with very few cases reported in the literature, particularly in the fallopian tubes or ovaries. Although ectopic HM is often curable, it requires special attention and a multidisciplinary approach to maximize the chances of recovery and prevent potential complications. This case underscores the importance of heightened vigilance in the face of atypical clinical presentations of ectopic pregnancy and the need for personalized management based on the location and nature of the mole. Monitoring βHCG levels remains essential to ensure remission and detect any recurrences or complications, with chemotherapy reserved for cases where malignant progression is suspected.

Déclarations

Guarantor of Submission

The corresponding author is the guarantor of submission.

Acknowledgements

None.

Funding
There are no funding sources to be declared.

Availability of Data and Materials
Supporting material is available if further analysis is needed.

Competing Interests
The authors declare that they have no competing interests.

Consent for Publication
Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Ethics Approval and Consent to Participate
Ethics approval has been obtained to proceed with the current study. Written informed consent was obtained from the patient for participation in this publication

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