CASE REPORT

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Persistent hydatidiform mole following incomplete evacuation mimicking post-molar gestational trophoblastic neoplasia successfully managed with repeat suction curettage: a case report

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ABSTRACT

Introduction: Hydatidiform mole is the most common form of gestational trophoblastic disease and may progress to post-molar gestational trophoblastic neoplasia (GTN). Persistent vaginal bleeding and elevated β-hCG levels following molar evacuation may indicate persistent trophoblastic disease and create diagnostic challenges, particularly when histopathological evaluation is unavailable.

Case Report: A 27-year-old woman was referred with persistent vaginal bleeding five months after suction curettage for a hydatidiform mole. Histopathological examination was not performed during the initial evacuation because the anatomical pathology service was unavailable. Physical examination revealed uterine enlargement and active vaginal bleeding. Serum β-hCG was markedly elevated at 223,759 mIU/mL, and ultrasonography demonstrated an enlarged uterus with a heterogeneous honeycomb appearance suggestive of hydatidiform mole. The patient underwent repeat suction curettage, and histopathological examination demonstrated persistent hydatidiform mole without evidence of malignancy. Serial β-hCG monitoring showed progressive decline to <2 mIU/mL without chemotherapy.

Discussion: Persistent trophoblastic disease following incomplete evacuation may clinically resemble post-molar GTN because of persistent bleeding, uterine enlargement, and markedly elevated β-hCG levels. Histopathological evaluation and serial β-hCG surveillance were essential in distinguishing persistent hydatidiform mole from malignant trophoblastic disease. Repeat suction curettage facilitated definitive diagnosis and complete remission in this patient.

Conclusion: Persistent trophoblastic disease secondary to incomplete evacuation of a hydatidiform mole may mimic post-molar GTN. Repeat suction curettage may represent an effective management option in carefully selected low-risk patients with disease confined to the uterus.

Keywords: hydatidiform mole, persistent trophoblastic disease, gestational trophoblastic neoplasia, suction curettage, β-hCG.

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INTRODUCTION

Hydatidiform mole (HM) is the most common form of gestational trophoblastic disease (GTD), a spectrum of pregnancy-related disorders characterized by abnormal trophoblastic proliferation.[1] The incidence of HM varies geographically, ranging from approximately 1–2 per 1,000 pregnancies in Europe and North America to nearly 10 per 1,000 pregnancies in Southeast Asian countries, including Indonesia, where the disease burden remains relatively high.[2,3] The condition occurs more frequently at the extremes of reproductive age, and a previous molar pregnancy substantially increases the risk of recurrence.[4] Although most patients achieve complete remission after uterine evacuation, complete hydatidiform mole carries a 15–20% risk of progression to post-molar gestational trophoblastic neoplasia (GTN), whereas the risk following partial mole remains considerably lower, approximately 0.5–1%.[5]

Histopathological examination remains the gold standard for diagnosing hydatidiform mole and is essential for accurate classification and risk stratification. Sonographic findings and elevated β-human chorionic gonadotropin (β-hCG) levels may raise clinical suspicion; however, definitive diagnosis requires pathological evaluation of evacuated tissue.[6,7] Post-evacuation surveillance relies on serial quantitative β-hCG measurements because persistent, plateauing, or rising β-hCG levels may indicate residual trophoblastic disease or progression to post-molar GTN.[8] Early recognition of abnormal β-hCG regression allows prompt identification of persistent trophoblastic disease and post-molar GTN, facilitating timely intervention and improving clinical outcomes.[5,9]

Management of persistent trophoblastic disease after molar

evacuation remains challenging in selected patients. Chemotherapy is the standard treatment for confirmed GTN. However, repeat suction curettage has emerged as a potential alternative in carefully selected low-risk patients with disease confined to the uterus.[10] Several studies have demonstrated that repeat evacuation can achieve sustained β-hCG decline and reduce the need for chemotherapy, although the evidence remains limited, and patient selection criteria continue to be debated.[10,11] Repeat curettage may be particularly valuable when persistent intrauterine disease is suspected, and histopathological confirmation from the initial evacuation is unavailable. These challenges become more pronounced in resource-limited settings, where access to histopathological services and standardized β-hCG surveillance may be restricted, potentially delaying diagnosis and appropriate management.[11]

We report a case of persistent trophoblastic disease following incomplete evacuation of a hydatidiform mole that initially raised suspicion of post-molar GTN. This case highlights the diagnostic challenges associated with persistent post-molar disease and the potential role of repeat suction curettage in carefully selected low-risk patients.

CASE DESCRIPTION

A 27-year-old woman was referred from Calang Regional Hospital with persistent vaginal bleeding that had continued for five months following suction curettage for a hydatidiform mole performed at a regional hospital. Histopathological examination of the evacuated tissue was not performed during the initial procedure because anatomical pathology services were unavailable. The patient also reported progressive abdominal distension, nausea, and intermittent vomiting. She denied any sexual intercourse after the procedure. Vaginal bleeding persisted despite medical treatment and had worsened during the three days before admission. The patient reported using one to two sanitary pads daily. Three days before referral, she developed generalized weakness and experienced a syncopal episode. Evaluation at a secondary hospital revealed a hemoglobin level of 7.9 g/dL.

On admission, obstetric examination demonstrated a uterine fundal height two fingerbreadths above the umbilicus with active vaginal bleeding. Vaginal examination revealed an open cervical os with fresh bleeding. The uterus was enlarged and mobile, while no adnexal masses were identified, and the pouch of Douglas was not bulging. Following a blood transfusion, the hemoglobin level increased to 11.5 g/dL. Serum β-human chorionic gonadotropin (β-hCG) was markedly elevated at 223,759 mIU/mL. Thyroid function tests showed mildly suppressed thyroid-stimulating hormone (TSH) at 0.414 µIU/mL, with normal free T3 and free T4 concentrations.

Pelvic ultrasonography demonstrated an anteflexed uterus measuring 14.00 x 10.27 x 8.65 cm containing a heterogeneous intrauterine mass with a characteristic honeycomb appearance and increased vascularization. Both ovaries were normal in size, and a right-sided theca lutein cyst was identified (**Figure 1**). Based on the International Federation of Gynecology and Obstetrics (FIGO)/World Health Organization (WHO) prognostic scoring system, the patient had a score of 5, derived from an antecedent molar pregnancy (0), an interval of five months from the index pregnancy (1), a pre-treatment β-hCG level exceeding 100,000 mIU/mL (4), absence of metastases (0), disease confined to the uterus (0), and no prior chemotherapy (0), indicating low-risk disease.

Given the persistent vaginal bleeding, markedly elevated β-hCG level, and suspicion of persistent trophoblastic disease, repeat suction curettage was performed. Approximately 100 cc of vesicular tissue was evacuated and submitted for histopathological evaluation. The procedure was completed without complications, and vaginal bleeding resolved immediately after surgery. Gross examination revealed multiple vesicular tissues consistent with molar products of conception (**Figure 2**).

Histopathological examination demonstrated hydropic chorionic villi with fibromyxoid, edematous, and avascular stroma accompanied by decidual tissue. No

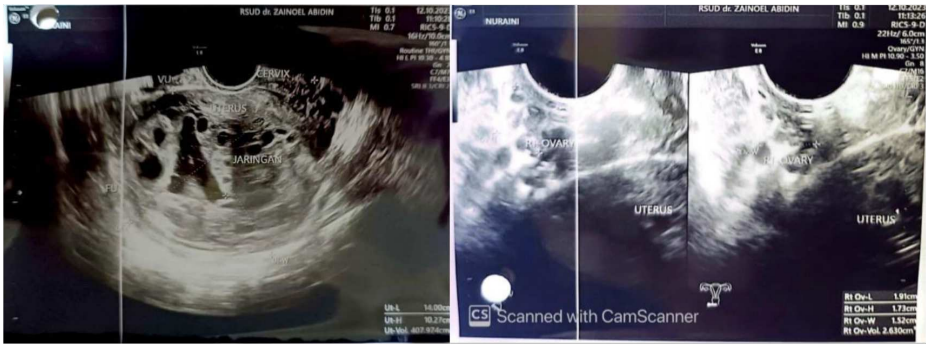

Figure 1. Pelvic ultrasonography showing an enlarged anteflexed uterus with a heterogeneous honeycomb appearance and increased vascularity, suggestive of hydatidiform mole.

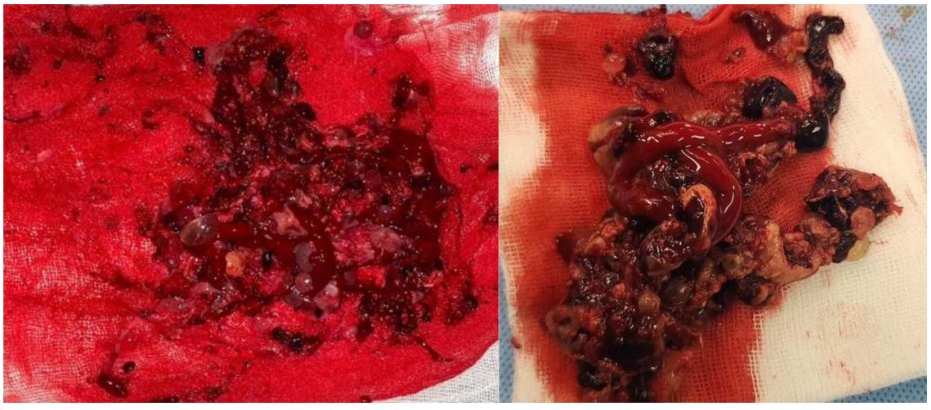

Figure 2. Gross appearance of vesicular tissue evacuated during repeat suction curettage, demonstrating multiple grape-like cystic structures consistent with molar tissue.

Table1. Serial serum β-hCG measurements during post-curettage follow-up.

	Beta-hCG level (mIU/mL)
Pre-Curettage	
October 12, 2023	223,759
Post-Curretage	
October 16, 2023	40,544.88
October 30, 2023	968.58
November 7, 2024	678.60
November 14, 2024	408.00
December 14, 2024	347.12
January 14, 2025	207.97
February 21, 2025	116.36
March 25, 2025	34.44
April 20, 2025	22.20
May 30, 2025	<2

cytological atypia, invasive trophoblastic proliferation, or malignant features were identified. These findings were consistent with persistent hydatidiform mole rather than confirmed gestational trophoblastic neoplasia.

The patient was discharged in stable condition and underwent serial serum β-hCG monitoring. Progressive decline in β-hCG levels was observed throughout follow-up, ultimately reaching a normal value of <2 mIU/mL without chemotherapy (Table 1).

Serial β-hCG monitoring demonstrated a continuous decline without plateauing or secondary elevation, eventually reaching complete biochemical remission. The absence of a rising or plateauing β-hCG pattern, together with the histopathological findings and clinical resolution after repeat curettage, supported the final diagnosis of persistent hydatidiform mole secondary to incomplete evacuation rather than post-molar gestational trophoblastic neoplasia. Written informed consent was obtained from the patient for publication of this case report and accompanying clinical images.

DISCUSSION

This case illustrates the diagnostic challenge of persistent trophoblastic disease presenting five months after molar evacuation with persistent vaginal bleeding, marked uterine enlargement, and a markedly elevated serum β-hCG concentration. These findings initially raised suspicion of post-molar gestational trophoblastic neoplasia (GTN), particularly given the prolonged interval since the initial evacuation and the high β-hCG level at presentation. However, subsequent histopathological evaluation and serial β-hCG monitoring demonstrated persistent hydatidiform mole without evidence of malignant transformation.

Hydatidiform mole is the most common form of gestational trophoblastic disease and carries a variable risk of progression to GTN depending on the histological subtype. Approximately 15–20% of complete hydatidiform moles and 0.5–1% of partial hydatidiform moles subsequently develop post-molar GTN, necessitating close post-evacuation surveillance.[12,13] Despite several recognized risk factors, including advanced maternal age, excessive uterine enlargement, large theca lutein cysts, and elevated pre-evacuation β-hCG levels, predicting which patients will progress to GTN remains challenging because these clinical parameters have limited predictive accuracy.[13–15]

Post-molar GTN is primarily diagnosed through serial β-hCG surveillance rather than clinical symptoms alone. According to the International Federation of Gynecology and Obstetrics (FIGO), GTN is diagnosed when there is a plateau in β-hCG levels across four measurements over three weeks, a rise in β-hCG levels across three measurements over two weeks, or histological confirmation of choriocarcinoma. Persistent detectable β-hCG beyond six months after evacuation may also support the diagnosis.[16]

Although our patient presented with persistent vaginal bleeding and an initial β-hCG level of 223,759 mIU/mL, her subsequent clinical course did not fulfill the FIGO criteria for post-molar GTN. Histopathological examination following repeat suction curettage revealed hydropic chorionic villi with an edematous, avascular stroma, and no evidence of invasive trophoblastic proliferation or malignancy. Furthermore, serial β-hCG measurements demonstrated a continuous decline without plateauing or secondary elevation until complete normalization was achieved. These findings strongly favored persistent hydatidiform mole secondary to incomplete evacuation rather than confirmed post-molar GTN.

The absence of histopathological examination during the initial evacuation contributed substantially to the diagnostic uncertainty in this case. Histopathological evaluation remains the gold standard for confirming hydatidiform mole and distinguishing persistent molar tissue from malignant trophoblastic disease. In many resource-limited settings, access to pathology services remains restricted, which may delay definitive diagnosis and complicate subsequent management decisions. This limitation was particularly relevant in our patient because the initial curettage was performed in a hospital without anatomical pathology facilities.

Serial β-hCG monitoring remains the cornerstone of post-molar surveillance and provides a sensitive indicator of residual trophoblastic activity.[17] Current study reported that systematic β-hCG surveillance enables early detection of GTN and facilitates timely intervention before disease progression occurs.[12] Delayed recognition of abnormal β-hCG trends may permit progression to invasive disease and worsen clinical outcomes.[18] In the present case, the progressive decline of β-hCG from 223,759 mIU/mL to undetectable levels without chemotherapy provided strong evidence against active GTN and confirmed successful treatment following repeat evacuation.

The role of repeat suction curettage in patients with suspected post-molar GTN remains controversial. Chemotherapy is considered the standard treatment for confirmed GTN.[19] However, repeat uterine evacuation has been proposed for selected low-risk patients with disease apparently confined to the uterus. Surgical management may be particularly useful when residual intrauterine trophoblastic tissue is suspected and fertility preservation is desired.[10,16] Several studies have reported that repeat curettage can induce sustained β-hCG remission and reduce the need for chemotherapy in appropriately selected patients, although patient selection criteria remain incompletely defined.

Several clinical factors supported the decision to perform repeat suction curettage in our patient. The disease appeared confined to the uterus on imaging, and no evidence of metastatic disease was identified, the FIGO prognostic score was 5, indicating low-risk disease. Repeat curettage resulted in the successful removal of residual molar tissue, immediate resolution of vaginal bleeding, histopathological confirmation of persistent hydatidiform mole, and eventual normalization of β-hCG levels without chemotherapy.[19,20] These findings suggest that repeat suction curettage may represent a reasonable management option in selected patients with suspected persistent intrauterine trophoblastic disease, particularly when the diagnosis remains uncertain.

This report has several limitations. Histopathological examination from the initial evacuation was unavailable, precluding definitive confirmation of the original molar subtype and preventing direct comparison with the repeat curettage specimen. As a single case report, the findings cannot be generalized to all patients with persistent trophoblastic disease. Nevertheless, this case highlights an important diagnostic challenge frequently encountered in resource-limited settings and demonstrates the potential value of repeat suction curettage in carefully selected low-risk patients before initiating chemotherapy.

CONCLUSION

Persistent trophoblastic disease following incomplete evacuation of a hydatidiform mole represents a diagnostic challenge because its clinical presentation may resemble post-molar gestational trophoblastic neoplasia. Persistent vaginal bleeding, uterine enlargement, and markedly elevated β-hCG levels raised suspicion of neoplastic transformation in our patient; nevertheless, histopathological examination demonstrated residual hydatidiform mole without evidence of malignancy. Repeat suction curettage successfully removed the retained molar tissue, resulted in progressive normalization of β-hCG levels, and eliminated the need for chemotherapy. This case highlights the importance of histopathological evaluation, post-evacuation β-hCG surveillance, and careful patient selection when considering repeat uterine evacuation in low-risk disease confined to the uterus.

DISCLOSURES

FUNDING

The authors declare that no funding was received for this study.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

PATIENT CONSENT

Written informed consent was obtained from the patient for publication of this case report and accompanying clinical images.

AUTHOR CONTRIBUTION

MH contributed to patient management, study conceptualization, data acquisition, literature review, manuscript preparation, and manuscript revision. CMY contributed to study design, data interpretation, literature review, and critical revision of the manuscript. RA contributed to study supervision, intellectual content, manuscript review, and final approval of the manuscript. All authors have read and approved the final version of the manuscript.

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