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Case Report

Persistent abnormal uterine bleeding in a reproductive-age woman: A case of misleading tests and RPOC

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Abstract

Abnormal uterine bleeding (AUB) is a common gynecological issue with multiple etiologies, including retained products of conception (RPOC). RPOC often presents diagnostic challenges as its features can resemble other conditions, such as gestational trophoblastic disease (GTD) or arteriovenous malformations (AVM). Timely diagnosis and appropriate management are crucial to prevent long-term complications, including infertility. This case report emphasizes as how keeping clinical suspicion high helped effectively managing AUB caused by RPOC. A 34-year-old woman, gravida 1, para 1, presented with persistent vaginal bleeding for 20 days. The patient had a known history of PCOS but no history of recent pregnancy, missed periods, or use of abortifacients. Initial evaluation at an outside clinic, including urine pregnancy test and beta-hCG levels, ruled out pregnancy. Transvaginal ultrasound revealed normal uterine and adnexal structures, and the patient was started on Dienogest for presumed abnormal uterine bleeding. Despite 13 days of hormonal therapy, the bleeding persisted, prompting further evaluation. Physical examination and additional investigations showed no abnormalities, and hysteroscopy revealed hyperplastic endometrium. Dilation and evacuation (D&E) were performed, and histopathology confirmed retained products of conception (RPOC). The patient responded well post-procedure, with resolution of symptom. This case underscores the need for a comprehensive diagnostic approach with high clinical suspicion in AUB, particularly considering RPOC as a potential cause. Hysteroscopy serves as a valuable tool for both diagnosis and treatment, but in misleading cases clinical suspicion always helps to reach to the diagnosis.

Keywords: Abnormal uterine bleeding, Retained products of conception, Hysteroscopy, Diagnostic imaging, Uterine haemorrhage.

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1. Introduction

Abnormal uterine bleeding (AUB) is a prevalent condition among women of reproductive age and can significantly impact both physical and mental health. One of the critical yet often under-recognized causes of AUB is retained products of conception (RPOC). RPOC refers to residual trophoblastic tissue that remains in the uterus following pregnancy events, including miscarriage, abortion, or delivery. It can present with persistent vaginal bleeding, abdominal pain, sepsis, or, in long-term cases, complications such as subfertility and intrauterine adhesions.[1]

Diagnosing RPOC is challenging, especially in cases where diagnostic clues are absent, leading to potential mismanagement. The condition can be difficult to distinguish from other causes of AUB, including arteriovenous malformations (AVM) and uterine pseudoaneurysms.[2] While ultrasonography, particularly transvaginal ultrasound, is frequently utilized for diagnosis, it has limitations. For example, it may not effectively differentiate between necrotic tissue and blood clots, often leading to misleading results. Ultrasonographic findings of an intrauterine mass with an endometrial thickness of 15 mm or more can suggest RPOC, yet the specificity remains low without additional supportive diagnostic tools.[3,4]

The presence of enhanced myometrial vascularity (EMV) on color Doppler ultrasonography may indicate RPOC, especially when accompanied by an intrauterine mass. However, EMV can also be a feature of other vascular

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abnormalities such as uterine AVMs, complicating the diagnosis.[5] Histopathological examination (HPE) remains the gold standard for confirming RPOC, particularly in cases where non-invasive imaging fails to provide a definitive diagnosis.[1] Hysteroscopy has been demonstrated as a valuable tool for both diagnosis and management, allowing direct visualization and removal of retained tissue, with a lower risk of intrauterine adhesions compared to blind curettage.[6,7]

The complexity of RPOC-related AUB lies not only in its varied presentation but also in its potential to persist even when diagnostic tests, such as pregnancy tests, are misleadingly negative. This case report emphasizes the importance of a comprehensive approach to AUB, focusing on the possibility of RPOC even in the presence of inconclusive diagnostic findings. It involves a 34-year-old woman presenting with persistent AUB, highlighting the necessity for prompt diagnosis, appropriate management, and a multidisciplinary approach in addressing the condition.

2. Case Study

A 34-year-old woman, gravida 1, para 1, with one live issue, presented to the gynecology outpatient department with a complaint of persistent bleeding per vaginum for 20 days. There was no history of a missed period, recent intake of abortifacients, nausea, vomiting, or pain. The patient was a known case of polycystic ovary syndrome (PCOS), though this was not the focus of the current issue.

Initially, the patient sought medical attention at an outside private clinic on day 7 of her menstrual cycle due to heavy menstrual bleeding. A urine pregnancy test (UPT) performed at that clinic was negative, and the serum beta-human chorionic gonadotropin (β-hCG) level was less than 5 mU/L. A transvaginal ultrasound (TVS) revealed a normal uterus and bilateral adnexa. Based on these findings, the clinician at the private clinic initiated treatment with Dienogest, considering the bleeding to be abnormal uterine bleeding (AUB). Despite 13 days of treatment with dienogest, the patient's heavy vaginal bleeding persisted.

Upon presentation to our outpatient department, the patient was hemodynamically stable. Pelvic examination revealed bleeding from the cervical os, with the uterus being of normal size. Further investigations, including a complete blood count, hormonal profile, and repeat β-hCG, were conducted. The β-hCG level remained below 85 mU/L, effectively ruling out pregnancy. A pelvic ultrasound was performed, showing an endometrial thickness of 4 mm, a normal uterine size, and normal bilateral adnexa.

Given the patient's lack of response to medical treatment and considering incomplete abortion as a differential diagnosis in a reproductive-age woman, hysteroscopy was performed. The procedure showed no visible evidence of retained products of conception (RPOC) or polyps. However, hyperplastic endometrium was observed. Subsequently, dilation and evacuation (D&E) were performed, and the endometrial tissue was sent for histopathological examination, which surprisingly revealed the presence of RPOC.

3. Discussion

Abnormal uterine bleeding (AUB) can arise from a multitude of causes, with retained products of conception (RPOC) being a critical factor, especially following miscarriage, abortion, or delivery. In this case, the patient presented with persistent AUB, which was ultimately attributed to RPOC, illustrating the complexities and challenges in diagnosing this condition. The literature shows that RPOC is a frequent cause of AUB, particularly in the context of secondary postpartum haemorrhage.[8]

RPOC often presents diagnostic challenges, as seen in both our case and others documented in the literature. For example, Shimada et al. reported a case of a 40-year-old woman who developed AUB one month after an abortion.[9] The patient's hypervascular myometrial RPOC was initially suspected to be a uterine artery pseudoaneurysm based on imaging findings, highlighting how RPOC can mimic other uterine pathologies. This situation parallels our case, where initial evaluations could potentially mislead due to the atypical presentation of RPOC.

In our case, the ultrasound findings were not very helpful but clinical symptoms were crucial in suspecting RPOC. As the first-line imaging modality, ultrasound, especially with color Doppler, has been emphasized as an effective tool for identifying vascularity associated with RPOC.[8] Shimada et al. and Pourali et al. similarly highlight the importance of imaging in detecting intrauterine abnormalities that suggest RPOC, although ultrasound alone may not always differentiate RPOC from other conditions such as arteriovenous malformations (AVM) or gestational trophoblastic disease (GTD).[9,10]

The management of RPOC varies depending on the severity of symptoms, size and the specific characteristics of the retained tissue. In our case, hysteroscopic visualization of uterine cavity F/B D&C was chosen, aligning with the current literature that supports hysteroscopy as an effective diagnostic and therapeutic modality. Pourali et al. discuss how hysteroscopy allows direct visualization and complete removal of RPOC, reducing the risks of further complications like intrauterine adhesions (IUAs).[10] This method contrasts with traditional dilation and curettage (D&C), which has been associated with higher rates of incomplete evacuation and IUAs.[11]

In terms of fertility outcomes, Hooker et al. found that hysteroscopic resection of RPOC resulted in fewer IUAs and better reproductive outcomes compared to D&C.[12] This observation is consistent with the positive fertility outcomes

in our patient, emphasizing the advantages of hysteroscopic intervention in managing RPOC. Similarly, Smorgick et al. reported that hysteroscopy has a low complication rate and high rates of subsequent pregnancies, making it the preferred method for patients desiring future fertility.[5]

Furthermore, Shimada et al. emphasize the potential risks of adopting a wait-and-watch approach in cases of hypervascular RPOC, as spontaneous resolution might not occur and could lead to massive bleeding.[9] This aligns with our case, where prompt intervention was necessary to address the persistent AUB and prevent further complications.

Interestingly, some cases in the literature have noted the presence of misleading beta-hCG levels in patients with RPOC. Pourali et al. present cases where persistent low beta-hCG levels imitated gestational trophoblastic disease (GTD), complicating the diagnosis.[10] In our case, similar diagnostic challenges were encountered, underscoring the need for careful assessment and consideration of RPOC in the differential diagnosis of AUB, even when beta-hCG levels are not significantly elevated.

The choice of management strategies for AUB due to RPOC should be individualized, considering factors such as the extent of retained tissue, vascularity, and the patient's reproductive goals. While medical management with agents like misoprostol is an option, it has been associated with a risk of incomplete evacuation.[12] Hysteroscopic resection, as utilized in our case, offers direct removal of retained tissue with a lower incidence of complications, making it an optimal approach for patients with RPOC-related AUB.[13-15]

Finally, this case report aligns with the current literature in demonstrating that RPOC is a significant cause of AUB, which can be challenging to diagnose due to its varied presentation and potential to mimic other uterine abnormalities. High index of clinical suspicion, use of hysteroscopy for both diagnosis and management provides a direct and effective approach to removing RPOC, thereby improving patient outcomes and preserving fertility. Further research is warranted to establish standardized protocols for the management of RPOC, considering its role in AUB and the potential for misleading diagnostic findings.

4. Recommendations

Given the challenges in diagnosing RPOC due to its similarity to other uterine abnormalities, we recommend a comprehensive approach involving clinical assessment, imaging with transvaginal ultrasound with color Doppler, and consideration of hysteroscopy for both diagnosis and treatment. Hysteroscopic visualization should be prioritized over traditional dilation and curettage (D&C) due to its higher accuracy, lower risk of intrauterine adhesions, and better fertility outcomes. Early intervention is crucial, especially in hypervascular RPOC cases, to prevent massive bleeding. A multidisciplinary team, including radiologists, gynecologists, and fertility specialists, is recommended to provide optimal care. Further research is warranted to develop standardized management protocols for RPOC-related AUB, enhancing early diagnosis and reducing associated complications.

5. Conclusion

This case underscores the importance of recognizing retained products of conception (RPOC) as a significant cause of abnormal uterine bleeding (AUB). Diagnostic challenges arise due to RPOC's potential to mimic other uterine pathologies, highlighting the need for a thorough evaluation using ultrasound and, when indicated, hysteroscopy. In this case, hysteroscopic removal proved to be an effective and fertility-preserving treatment option, aligning with current literature that supports its superiority over traditional D&C. The presence of misleading diagnostic findings, such as atypical beta-hCG levels, further emphasizes the importance of considering RPOC in the differential diagnosis of AUB. By implementing a comprehensive diagnostic approach along with high index of clinical suspicion helps in reaching diagnosis and treating the patient.

6. Source of Funding

None.

7. Conflict of Interest

None.

References

1. Jamal S, Singh N. Challenging presentations of retained products of conception: A case series. *J South Asian Fed Obstet Gynaecol*. 2023;15(2):232–5.
2. Hamel CC, van Wessel S, Carnegy A, Coppus SFPJ, Snijders MPML, Clark J, et al. Diagnostic criteria for retained products of conception-A scoping review. *Acta Obstet Gynecol Scand*. 2021;100(12):2135–43.
3. Sellmyer MA, Desser TS, Maturen KE, Jeffrey RB Jr, Kamaya A. Physiologic, histologic, and imaging features of retained products of conception. *Radiographics*. 2013;33(3):781–96.
4. Chawla S, Sharma R. Retained Products of Conception (RPOC): Diagnosis, Complication & Management. *J Obstet Gynaecol India*. 2023;73(5):374–80.
5. Smorgick N, Barel O, Fuchs N, Ben-Ami I, Pansky M, Vaknin Z. Hysteroscopic management of retained products of conception: meta-analysis and literature review. *Eur J Obstet Gynecol Reprod Biol*. 2014;173:19–22.
6. Mohr-Sasson A, Zajicek M, Orvieto R, Tamir Z, Kassif E, Mashiach R, et al. Management of women presenting with vaginal bleeding with enhanced myometrial vascularity and suspected retained products of conception. *Clin Exp Obstet Gynecol*. 2022;49(4):95.
7. Lin YH, Cheng YY, Ding DC. Hysteroscopic Management of Retained Products of Conception. *Gynecol Minim Invasive Ther*. 2018;7(3):133–5.
8. Iraha Y, Okada M, Toguchi M, Azama K, Mekaru K, Kinjo T, et al. Multimodality imaging in secondary postpartum or postabortion hemorrhage: retained products of conception and related conditions. *Jpn J Radiol*. 2018;36(1):12–22.
9. Shimada T, Wakimoto Y, Kamihigashi M, Tanaka H, Shibahara H. Management of hypervascular retained products of conception with massive bleeding. *Cureus*. 2023 Sep 25;15(9):e45952.

10. Pourali L, Ayati S, Layegh P, Vatanchi A, Rastin Z, Shourvi A. Persistent low levels of Beta-hCG: A Pitfall in diagnosis of retained product of conception. *Acta Med Iran*. 2018:478–81.
11. Hooker AB, de Leeuw R, van de Ven PM, Bakkum EA, Thurkow AL, Vogel NE, et al. Prevalence of intrauterine adhesions after the application of hyaluronic acid gel after dilatation and curettage in women with at least one previous curettage: short-term outcomes of a multicenter, prospective randomized controlled trial. *Fertil Steril*. 2017;107(5):1223–31.e3.
12. Hooker AB, Aydin H, Brölmann HA, Huirne JA. Long-term complications and reproductive outcome after the management of retained products of conception: a systematic review. *Fertil Steril*. 2016;105(1):156–64.
13. Garg G, Patvekar M, Agarwal K, Bhatia I, Sanghi S. A study of the Role of Hysteroscopy in Abnormal Uterine Bleeding. *J Gynecol Surg*. 2017;33(6):226–30.
14. Marnach ML, Laughlin-Tommaso SK. Evaluation and Management of Abnormal Uterine Bleeding. *Mayo Clin Proc*. 2019;94(2):326–35.
15. Albers JR, Hull SK, Wesley RM. Abnormal uterine bleeding. *Am Fam Physician*. 2004;69(8):1915–26.

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