

Postpartum Vesicouterine Hematoma Following Cervical Tear: A Rare Case Report

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Abstract: *This case report describes a rare presentation of postpartum vesicouterine pouch hematoma resulting from a cervical tear extending into the lower uterine segment. A 26-year-old multiparous woman presented on day 3 after vaginal delivery with severe abdominal pain and hematological abnormalities. Imaging revealed a concealed hematoma communicating with the endocervical canal. The patient was managed with exploratory laparotomy, hematoma evacuation, and surgical repair of the uterine defect. Early diagnosis using imaging and prompt multidisciplinary intervention resulted in a favorable outcome. This case highlights the importance of considering concealed pelvic hematomas in postpartum patients with unexplained anemia and abdominal symptoms.*

Keywords: secondary postpartum hemorrhage, concealed hematoma, vesicouterine pouch hematoma, cervical tear, lower uterine segment, exploratory laparotomy, case report.

1. Introduction

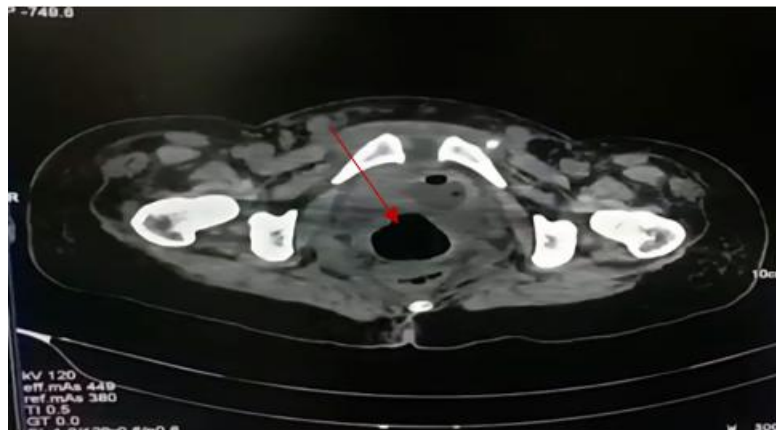
Postpartum hemorrhagic complications remain an important cause of maternal morbidity and mortality. While primary postpartum hemorrhage is commonly encountered, concealed pelvic hematomas in the postpartum period are relatively rare and can present as delayed postpartum emergencies. Hematomas involving the vesicouterine pouch are uncommon and may arise secondary to trauma sustained during labor and delivery, including cervical tears extending into the lower uterine segment.

Such cases may initially remain clinically silent and later present with abdominal pain, hemodynamic instability, and features of concealed blood loss. Due to the rarity of this presentation, timely diagnosis requires a high index of suspicion. We present a rare case of vesicouterine pouch hematoma diagnosed on postnatal day 3 due to cervical tear

extension into the lower uterine segment, successfully managed by exploratory laparotomy.

2. Case Report

A 26-year-old multiparous woman (P5L5) was referred from a peripheral hospital on Post-vaginal delivery day 3 with severe lower abdominal pain with ultrasonography suggestive of a blood clot in the anterior uterine segment measuring 9 × 5 cm, associated with severe anemia and thrombocytopenia for further Management. On admission, the patient complained of lower abdominal pain and was hemodynamically stable with adequate urine output. Laboratory investigations revealed anemia and thrombocytopenia with normal liver and renal function tests and PT/INR within normal limits. NCCT KUB was done and showed a vesicouterine pouch hematoma measuring 7 × 6 × 6 cm (approximately 168 cc), tracking into the endocervical canal through a right anterolateral cervical tear.



Considering the clinical findings, imaging findings and significant hematological derangements, the patient was promptly managed by a multidisciplinary team Approach. Preoperative stabilization was undertaken with blood and blood product transfusion support, including packed red blood cells and platelet concentrates.

A planned exploratory laparotomy was performed through a vertical midline incision. Intraoperatively, the hematoma was evacuated completely, and a rent in the lower uterine segment extending from the cervical tear was identified. The defect was meticulously repaired using Vicryl No. 1 sutures, and right cervical artery ligation was performed to achieve definitive hemostasis. Thorough peritoneal toileting was carried out and an intraperitoneal drain was placed.



(1) Vesicouterine haematoma on right lower segment of uterus (2) Hematoma drained (3) Evidence of cervical rent extending in lower uterine segment (4) Rent repaired and right cervical artery ligation done hemostasis was achieved.

Postoperatively, the patient received continued multidisciplinary intensive monitoring, intravenous antibiotics, analgesics, and further transfusion support as required. She tolerated the procedure well and had an uneventful postoperative recovery, with gradual hematological improvement and discharge in stable condition.

3. Discussion

Postpartum pelvic hematomas are uncommon but clinically significant causes of secondary postpartum hemorrhage, most often arising from genital tract trauma such as cervical tears,

traumatic vaginal delivery, extension of lower uterine segment injury, or uterine vessel laceration.^{1,2} These hematomas may remain concealed within the pelvic or retroperitoneal spaces, thereby delaying diagnosis and increasing the risk of severe maternal morbidity.¹

The present case is notable for the rare occurrence of a vesicouterine pouch hematoma communicating with the endocervical canal through a cervical tear extending into the lower uterine segment. This unusual anatomical communication resulted in a concealed intrapelvic blood collection, presenting clinically with severe anemia and thrombocytopenia despite stable hemodynamic parameters.

Similar reports of occult postpartum hematomas and delayed presentations of uterine tears highlight the need for a high index of suspicion in symptomatic postpartum women.^{1,3}

Patients with concealed postpartum hematomas typically present within 24–72 hours following delivery, often with nonspecific features such as lower abdominal pain, abdominal distension, generalized weakness, pallor, tachycardia, and a disproportionate decline in hemoglobin levels. Minimal or absent vaginal bleeding may be misleading and contribute to delayed recognition.^{1,4}

In the present case, timely clinical suspicion coupled with appropriate radiological imaging was pivotal in establishing the diagnosis. Ultrasonography served as an initial screening modality; however, contrast-enhanced computed tomography (CT) provided superior delineation of the hematoma's size, extent, and its communication with the cervical tear and lower uterine segment, thereby aiding in definitive management planning.^{1,4}

Early surgical intervention was instrumental in preventing progression to hemodynamic instability, infection, and potential maternal near-miss events. Furthermore, this case underscores the importance of a multidisciplinary approach involving obstetricians, anesthesiologists, and radiologists, along with prompt availability of blood and blood products, which collectively contributed to a favorable maternal outcome. Standard obstetric texts also emphasize meticulous post-delivery examination of the cervix and lower uterine segment to identify occult tears and prevent delayed postpartum hemorrhagic complications.^{6,7}

4. Conclusion

This case emphasizes that vesicouterine pouch hematoma should be considered in postpartum patients with unexplained anemia and abdominal pain. Cervical tear extension into the lower uterine segment can lead to concealed hemorrhage. Early imaging, timely surgical intervention, and multidisciplinary management are key to reducing morbidity and improving outcomes

References

- [1] Redondo Villatoro A, Azcona Sutil L, Vargas Gálvez D, Carmona Domínguez E, Cabezas Palacios MN. Diagnosis and management of postpartum retroperitoneal hematoma: a report of 3 cases. *Am J Case Rep.* 2022; 23: e935787.
- [2] Alturki F, Ponette V, Boucher LM. Spontaneous retroperitoneal hematomas following uncomplicated vaginal deliveries: a case report and literature review. *J Obstet Gynaecol Can.* 2018;40(6):712–715.
- [3] Ali MB, Ali MB. Late presentation of uterine rupture: a case report. *Cureus.* 2019;11(10):e5950.
- [4] Cloet L, Lutin B, De Keersmaecker B. Spontaneous uterine vessel rupture in the peripartum period: a case report. *Obstet Gynecol Cases Rev.* 2023; 10: 246.
- [5] Precipitous delivery complicated by uterine artery laceration and uterine rupture in an unscarred uterus: a case report. *Case Rep Womens Health.* 2022;35: e00429.

- [6] Cunningham FG, Leveno KJ, Bloom SL, et al. *Williams Obstetrics.* 26th ed. New York: McGraw-Hill; 2022.
- [7] Dutta DC. *Textbook of Obstetrics.* 10th ed. New Delhi: Jaypee Brothers; 2023.