

# A Ticking Time Bomb: Unexpected Uterine Haemorrhage Requiring Life-Saving Hysterectomy

Lucy Joyce. Royal Brisbane and Women's Hospital, QLD, Australia

## Case

A 41-year-old woman with a history of heavy vaginal bleeding and a suspected uterine arteriovenous malformation (AVM) was transferred from a peripheral hospital, with her clinical condition further complicated by recent bilateral pulmonary emboli. Anticoagulation was recommended but not initiated due to the risk of exacerbating bleeding. Initially stable on norethisterone, she was awaiting interventional radiology review for uterine artery embolization (UAE).

However, she suddenly experienced massive vaginal bleeding overnight, leading to haemodynamic instability with hypotension, tachycardia, and a reduced GCS. Fluid resuscitation was commenced, and the massive transfusion protocol was activated. As her condition deteriorated, a Category 1 transfer to theatre was urgently arranged. Ongoing bimanual compression was required en route, as any loss of compression resulted in significant bleeding. By the time she reached theatre, the estimated blood loss (EBL) had reached 2L.

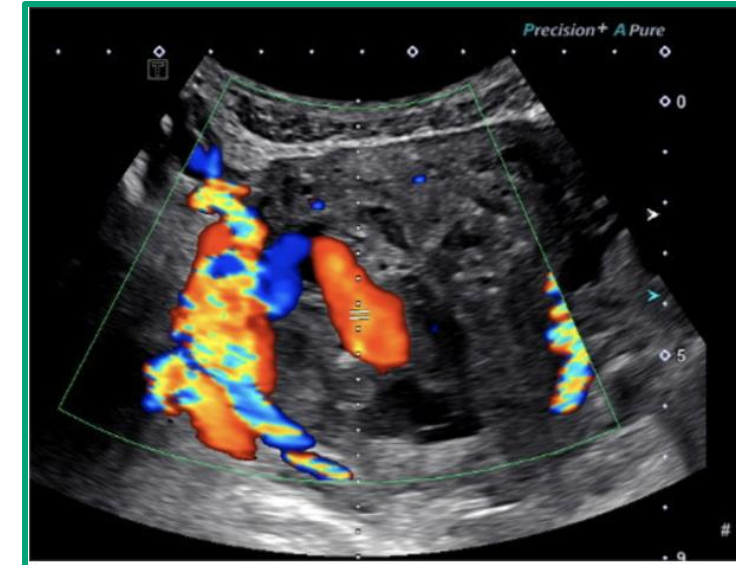


Figure 1: Mass in lower uterine segment, 52 x 68 x 70mm. Likely AVM.

## Findings

A total abdominal hysterectomy, bilateral salpingectomy, and right oophorectomy were performed after attempts to preserve the ovary were unsuccessful due to ongoing bleeding. The total EBL was 6L, requiring 14 units PRBCs, 8 units FFP, and 6g fibrinogen (ROTEM-guided). Postoperatively, the patient was transferred intubated to the ICU, where she made an uneventful recovery. Histopathology identified a 6cm area of retained products of conception (RPOC), characterised by vascular abnormalities, thrombosed vessels, and uterine wall thinning. No evidence of gestational trophoblastic disease was observed. The patient had a history of suction dilation and curettage for a missed miscarriage three years prior, with no known subsequent pregnancies. It was suspected that chronic RPOC contributed to the development of the AVM.

## Discussion

This case highlights the unpredictable nature of uterine AVMs and the need for prompt intervention. Delayed management led to catastrophic hemorrhage, and early interventions like UAE could have reduced bleeding risk. Interestingly, chronic RPOC may contribute to the development of uterine AVMs due to abnormal vascular development or compromised blood flow<sup>1</sup>.

## References

1. Gao, F., Ma, X., Xu, Y., Fu, L., & Guo, X. (2022). Management of Acquired Uterine Arteriovenous Malformations Associated with Retained Products of Conception. *Journal of Vascular and Interventional Radiology*, 33(5), 623-629. <https://doi.org/10.1016/j.jvir.2022.01.005>