

OBJECTIVES

We reported three cases who has showed striking myometrial vascularity on transvaginal ultrasound with initial diagnosis of AVM later proved to be (Case1: increased vascularity caused by trauma; Case2: Enhanced myometrial vascularity (EMV); Case 3: AVM).

DISCUSSION

AVMs are rare vascular abnormalities. These malformations can lead to severe vaginal bleeding, and in some cases, life-threatening haemorrhage. The exact incidence of uterine AVMs is difficult to determine, as many cases are either under diagnosed or over diagnosed. AVM often confused with EMV. These two are different entities and importantly, their management. AVM is congenital or acquired whereas the EMV is pregnancy related physiological condition. While selective embolization is a management of AVM, embolization is rarely indicated in EMV.

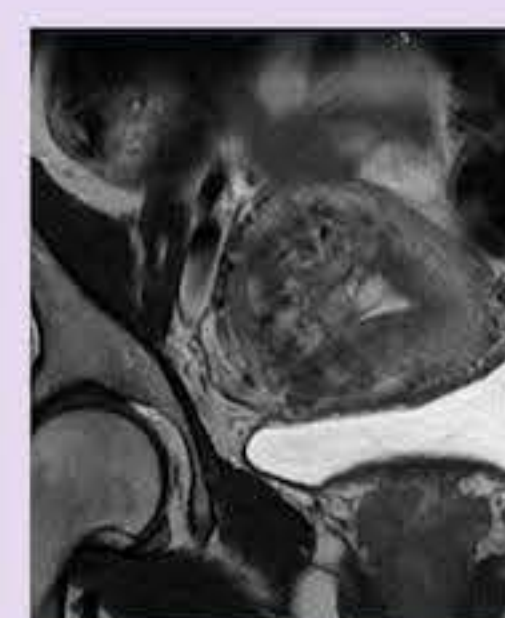
METHODOLOGY

CASE#1

A 40-year-old woman had a medical termination of pregnancy (MTO), followed by manual vacuum aspiration for retained products of conception. During the procedure, a transvaginal ultrasound revealed a possible breach of the endomyometrial junction. The patient had a follow-up transvaginal ultrasound (TVS) in three weeks, which demonstrated AVM which was further confirmed by MRI, while CT angiography excluded an arteriovenous malformation, suggesting uterine trauma with a persistent abnormal vascularity at the site of trauma. Conservative management was initiated, and a follow-up ultrasound after one month was unremarkable.



Case :1 3weeks post MVA:
diagnosed AVM on TVS



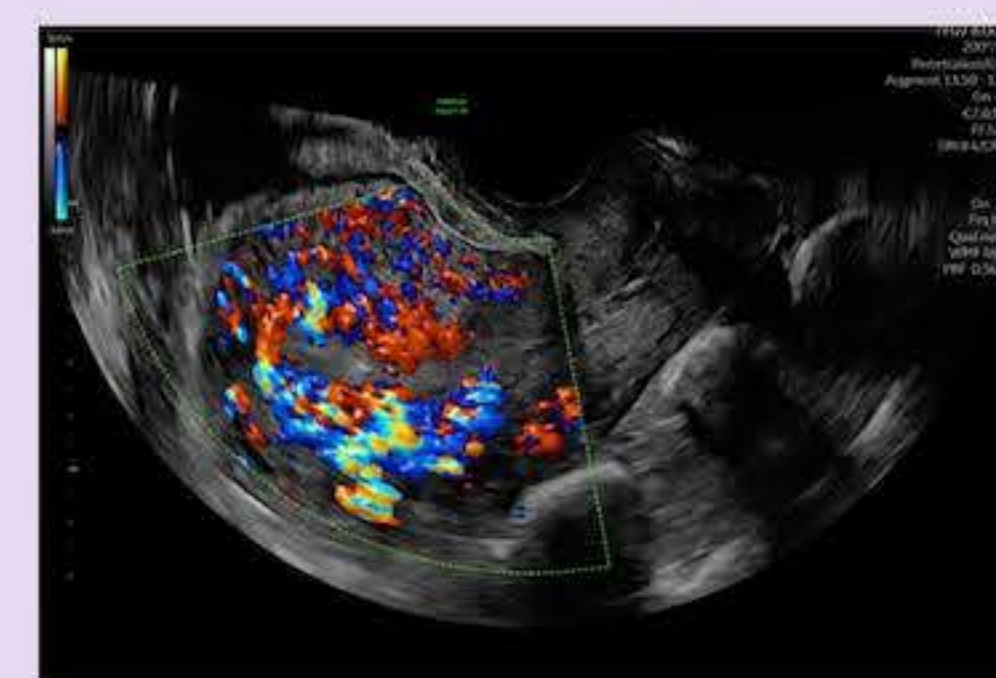
Case 1: MRI
confirming AVM,
Later CT
angiography
excluded AVM



Case 1: TVS 4weeks after
conservative management
showing normal uterus

CASE#2

A 41-year-old woman underwent surgical management for miscarriage. She presented with significant vaginal bleeding requiring blood transfusion after 4 weeks. A TVS initially diagnosed as AVM. Repeat scan by expert diagnosed EMV with no retained products of conception. Conservative management was chosen as the preferred course of action. Repeat ultrasound in 6 weeks showed normal pelvic scan.



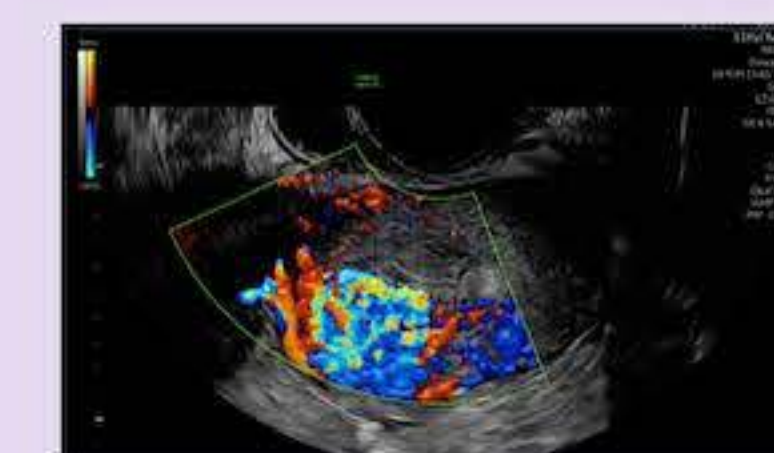
Case 2: Enhanced Myometrial
vasculature post SMM



Case 2: Normal scan after
Conservative approach 6weeks

CASE#3

A 20-year-old woman underwent MTO. She presented with ongoing vaginal bleeding for 2 months. During this period, she experienced multiple hospitalizations and required blood transfusions. TVS diagnosed as AVM. MRI and CT angiography of the pelvis further confirmed the diagnosis of AVM. She underwent uterine artery embolization. This intervention resulted in resolution of her symptoms.



Case 3: Post MTO TVS showing AVM
formation. MRI & CT confirmed AVM. Post
uterine artery embolization her symptoms
resolved

CONCLUSIONS

These cases highlight the importance of a thorough differential diagnosis when evaluating persistent vaginal bleeding following miscarriages. While AVMs should be considered in the presence of abnormal uterine vascularity, it is crucial to avoid over-diagnosis, as other conditions such as uterine trauma or enhanced myometrial vascularity can present with similar imaging findings. Ultrasound and Doppler imaging are the first-line tools, but their interpretation can be challenging. Secondary imaging such as MRI or CT angiogram may be required for definitive diagnosis.