

It isn't just in the books: a twin-case report of uterine arteriovenous malformation

Olusegun O. Badejoko, Gargi Deshmukh, Khin Khin Yu Maw, Gemma Bentham, Victoria Burkett, Olugbenga Adekanmi

York and Scarborough Teaching Hospital NHS Foundation Trust, UK

Objective

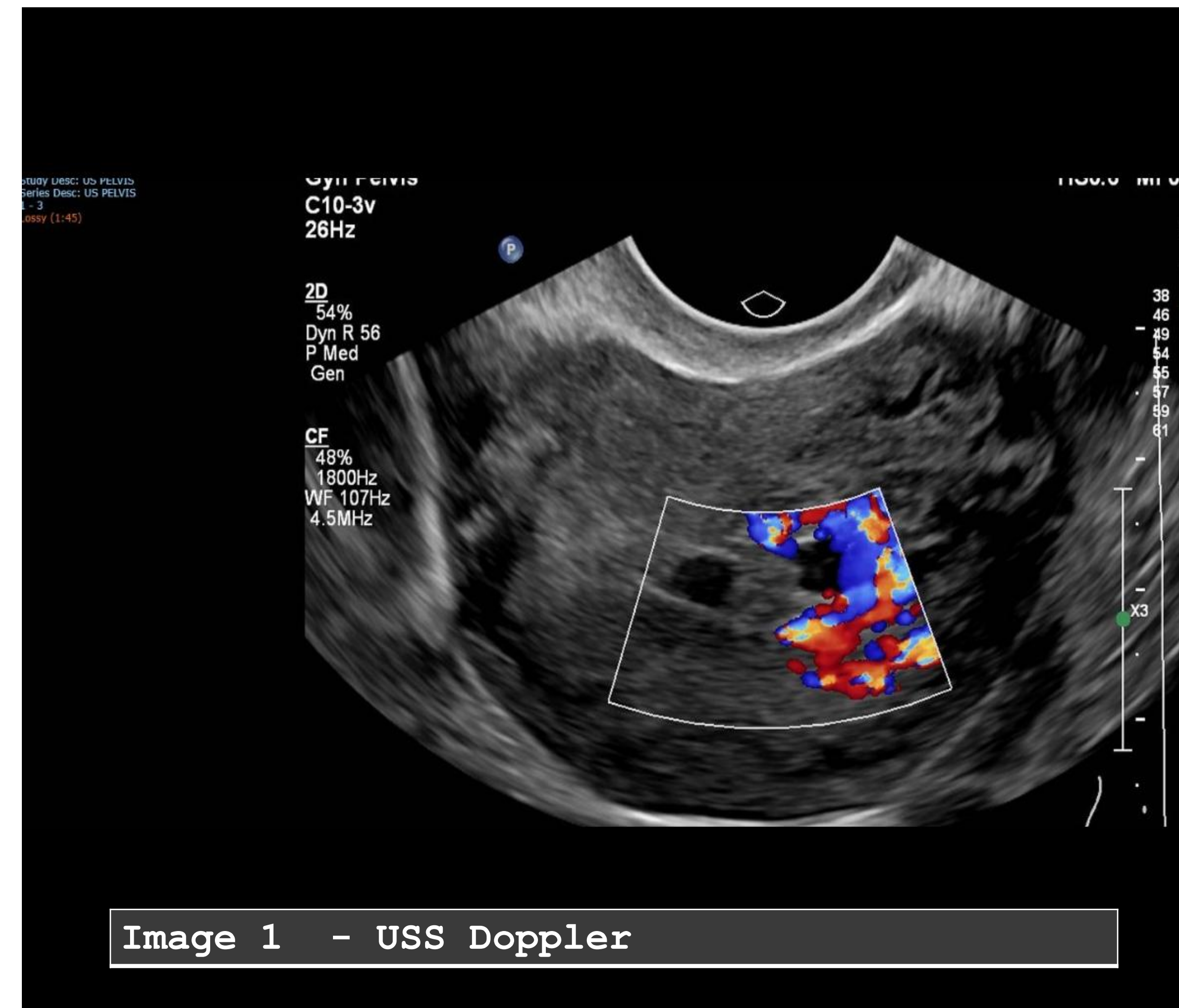
To present two cases of uterine arteriovenous malformation (AVM) managed by the authors in Scarborough Hospital, UK highlighting the diagnostic and management challenges and outcomes.

Case Report

First case - 30-year-old Para 4+1 who developed uterine AVM. She had a history of normal vaginal delivery complicated by retained placenta and primary post partum haemorrhage. Six months later she had a miscarriage which was treated surgically by evacuation of retained products of conception (ERPC). She subsequently experienced recurrent episodes of vaginal bleeding. Initial transvaginal ultrasound findings suggested retained products of conception (RPOC) with vascularity, however serum beta-HCG was negative. MRI and CT angiography was done and suggested the diagnosis of uterine AVM.

Multidisciplinary expertise was sought between interventional radiology and gynaecology in arranging a treatment plan. Her condition eventually necessitated an emergency hysterectomy as definitive management to control life-threatening haemorrhage as the AVM identified on CT angiography was observed to be a high flow AVM with high a risk of embolization. The patient had completed her family and the vaginal bleeding was significant, requiring blood transfusions. She consented to surgery and had an uncomplicated hysterectomy. Histology showed no evidence of AVM but found evidence of endometrial polyp and RPOC.

The second patient was a 32-year-old Para 3+1 who had massive bleeding during a repeat surgical evacuation of what was thought to be RPOC at the time. She had a preceding history of a missed miscarriage for which she had had an ERPC after failed medical management. The patient experienced continued vaginal bleeding following the surgical treatment. USS pelvis was performed and findings suggested highly vascular RPOC. Due to her multiple surgical treatments for the RPOC, MRI pelvis was done which confirmed uterine AVM. She was successfully treated with uterine artery embolization.



Discussion

- Uterine AVM is an uncommon condition, often presenting with undifferentiated vaginal bleeding that can range from intermittent spotting to massive haemorrhage.
- Radiological evaluation remains the gold standard for diagnosis of AVMs, and recent articles reported – AV shunts are rarely demonstrated histologically as they require many serial sections.
- Angiography remains the gold standard for diagnosis and is commonly employed for therapeutic purposes, such as embolization. Non-invasive imaging techniques like CT and MRI provide valuable insights into the extent of the lesion and its relationship with adjacent pelvic structures, facilitating both diagnosis and treatment planning.
- Vigilant approach in management of AVM plays a vital role as any surgical intervention in AVMs management can lead to life threatening bleeding.

Conclusion

- These cases highlighted the importance of having a high suspicion of uterine AVMs in atypical vaginal bleeding especially in women with previous history of uterine surgeries.
- Care must be taken to avoid interventions or surgeries that may disrupt vascular mass. Appropriate imaging investigation such as CT angiography should be done to reach correct diagnosis to reduce the morbidity associated with haemorrhage.

