

Case of the Month

A 22 year Old Lady Presented with Complaints of Heavy Bleeding Following Post-abortal Curettage

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ANSWER

PSEUDOANEURYSM OR ARTERIO-VEINUS MALFORMATION

Introduction

Pseudoaneurysm or arterio-venous malformation is a rare clinical entity. It is also described as cirroid aneurysm, arterio-venous fistula, arterio-venous aneurysm, pulsating angioma. Recognition of these abnormalities as the cause of haemorrhage is important, since these abnormalities can be treated safely and effectively with transcatheter arterial embolisation.

Diagnosis and Management

Draining veins showed pulsatile blood flow suggestive of pseudoaneurysm of right posterolateral uterine wall with arteriovenous fistula (Figure 2,3).

Interventional Radiologist opinion was sought as patient was young and desired future fertility. This particular patient underwent selective catheterisation of both uterine arteries done *via* left brachial artery. Bilateral uterine artery embolisation done under local anaesthesia using Micro nester coil 4x12 cm for right and Mcreys coil 4x4 cm for left uterine artery. Patient was discharged 2

days later without complications. Follow-up scan showed no abnormal vascularity in uterine wall. She conceived 4 months later with uneventful pregnancy till now.

Discussion

Pseudoaneurysm is a rare cause of haemorrhage. Uterine curettage or surgical trauma can cause uterine vascular abnormalities, including pseudoaneurysms, acquired arteriovenous malformations (AVMs), arteriovenous fistulas, and rupture of vessels.² Uterine AVMs should be

considered as a possibility in cases of refractory intrauterine bleeding.³ Recognition of these abnormalities as the cause of haemorrhage is important, since these abnormalities can be treated safely and effectively with transcatheter arterial embolisation but may be worsened by uterine curettage, precipitating massive uterine bleeding.

Ultrasonography is the most commonly performed initial imaging examination for evaluation of abnormal uterine bleeding. Colour and duplex Doppler ultra-

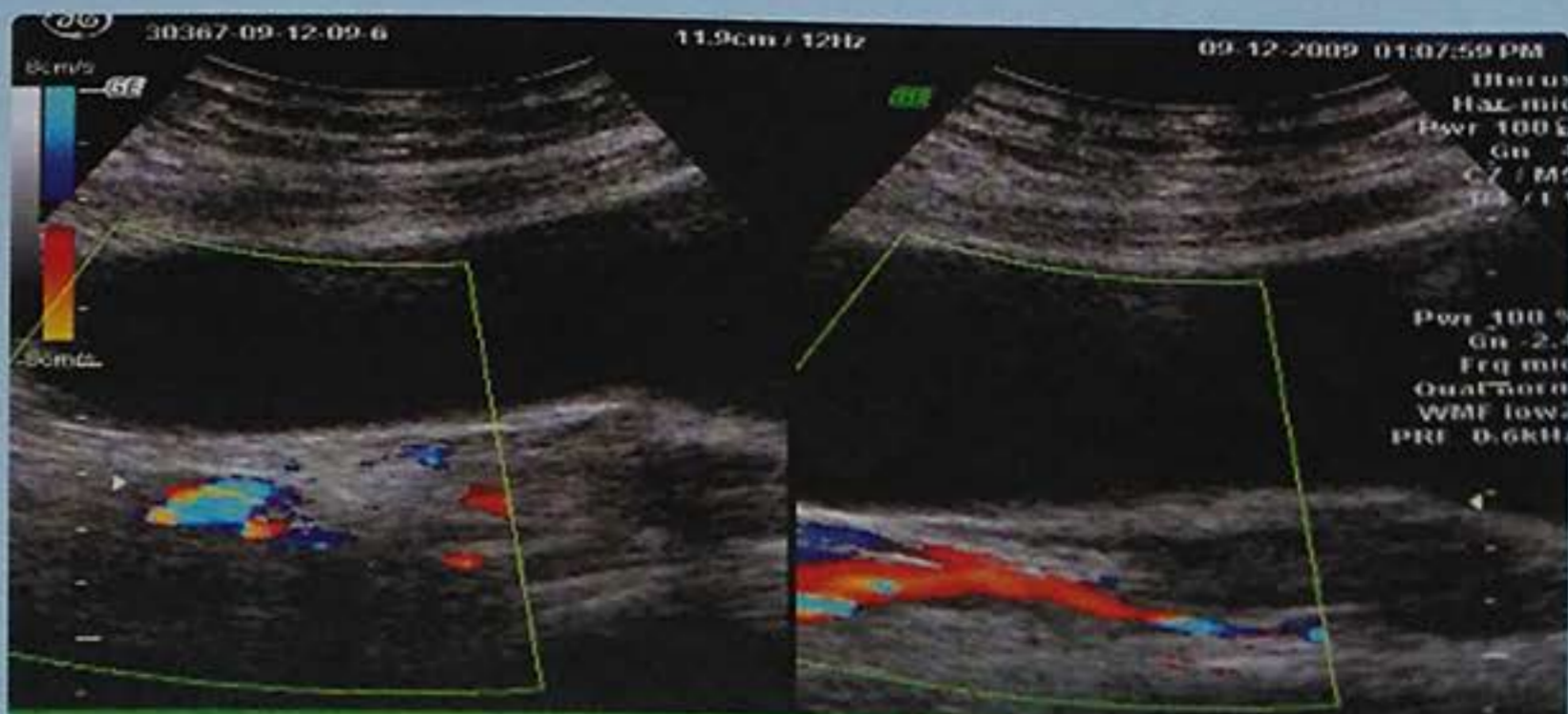


Figure 2. Longitudinal colour Doppler ultrasonography image shows that the cystic structure is filled with blood and has varying colours



Figure 3. Longitudinal duplex Doppler ultrasound image shows turbulent arterial flow within the sac

sound allows convincing detection and diagnosis of these vascular abnormalities and helps differentiate vascular abnormalities that require embolisation from nonvascular abnormalities.^{4,5}

In cases of pseudoaneurysms, colour and duplex Doppler ultrasound shows a blood-filled cystic structure with swirling arterial flow. In cases of AVMs, colour Doppler ultrasound shows an intense vascular tangle, whereas duplex Doppler US shows low-resistance, high-velocity arterial flow. Cases of an AVM combined with a pseudoaneurysm demonstrate the findings of both AVMs and pseudoaneurysms.

Transcatheter arterial embolisation

after angiography is the therapy of choice for these vascular abnormalities, with the advantage of retained reproductive capacity. Routine use of colour and Duplex Doppler ultrasound during examination of abnormal uterine bleeding is recommended to identify and characterise the vascular abnormality.

Pregnancy following conservative medical management of AVM and even after successful embolisation, although rare has been reported in literature.^{6,7,8}

Conclusions

Although not a common complication of curettage, the diagnosis should be considered in those patients with post-abortive

bleeding and cystic lesion in the pelvis on ultrasonography. Uterine artery embolisation is an effective method of treating hemorrhage secondary to a pseudoaneurysm of uterine artery with high success rate.

References

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