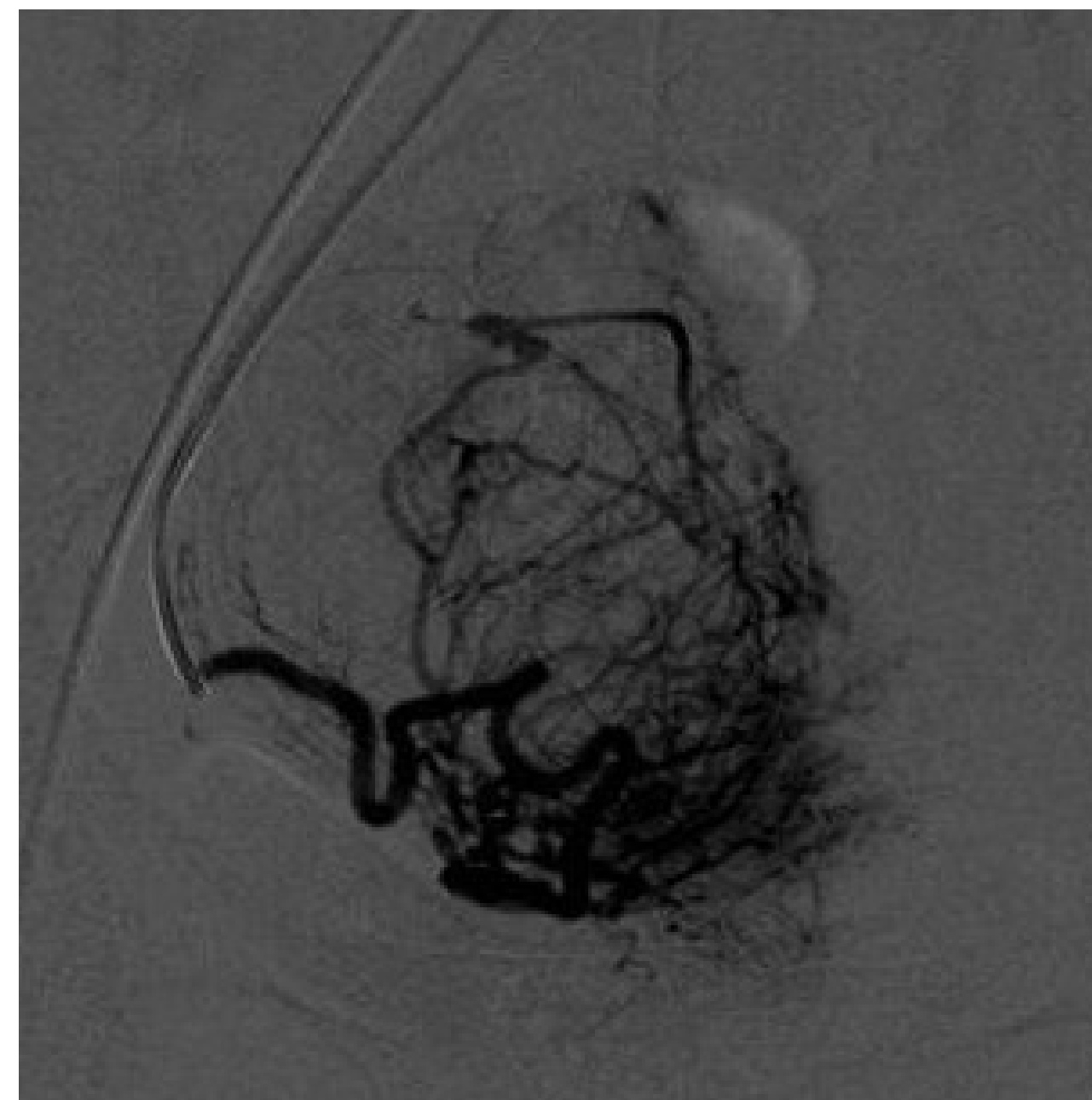
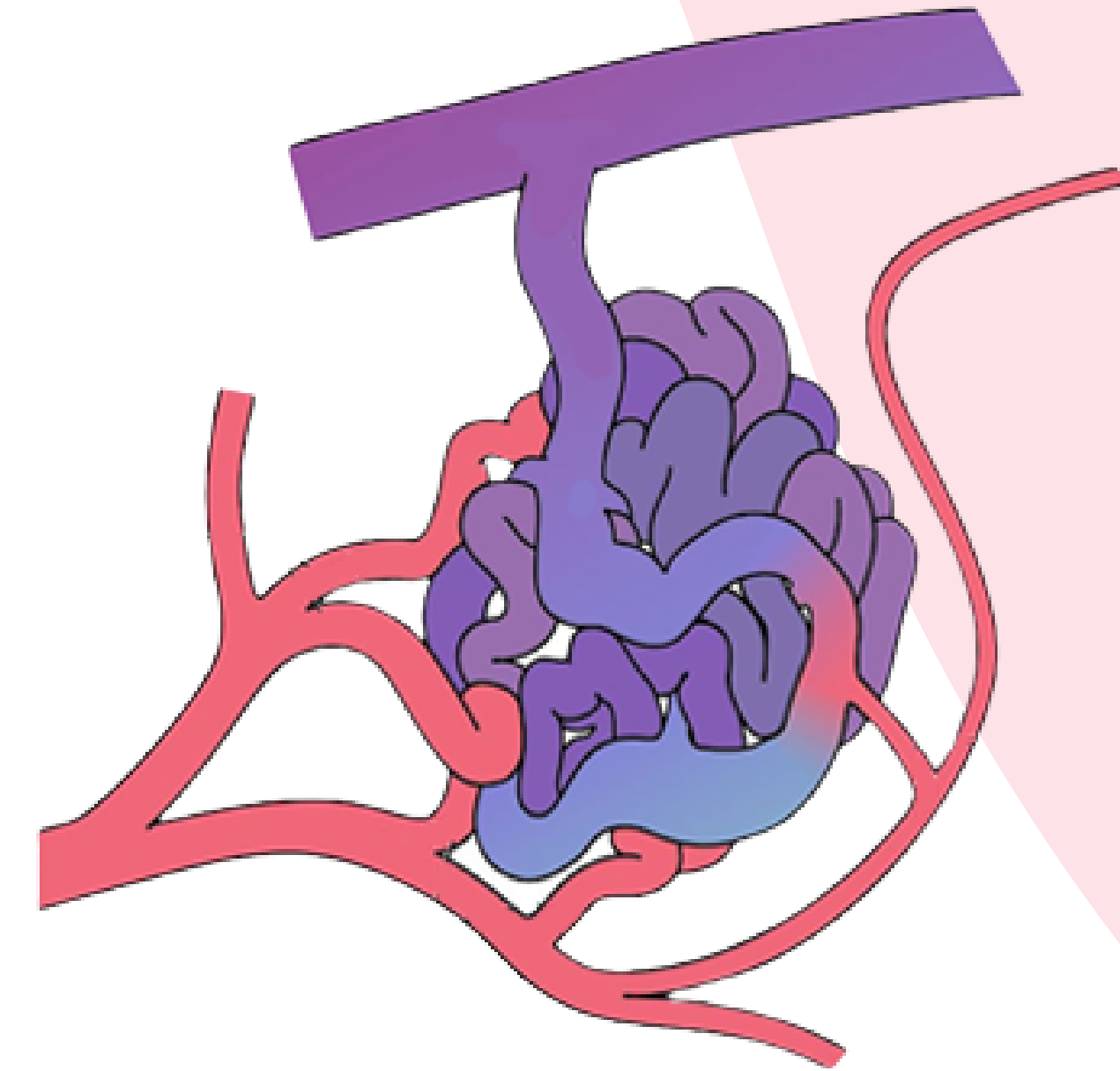


Uterine AVM: A case series on a rare but potentially life threatening condition

What is Uterine AVM?

Uterine arteriovenous malformation (AVM) is a rare but potentially life-threatening condition characterised by acquired abnormal communications between arterial and venous systems within the uterus. There is evidence of an association between trauma, either iatrogenic through surgical management of termination/miscarriage or through pathological processes such as endometrial carcinoma or trophoblastic disease, and the development of AVM.



How is it diagnosed?

It can be diagnosed through colour doppler ultrasound or CT angiography. Of our six patients, four presented with persistent vaginal bleeding following medical management of miscarriage or medical termination. Of the remaining, one presented with spontaneous major vaginal haemorrhage. The remaining patient was diagnosed following routine antenatal ultrasound.

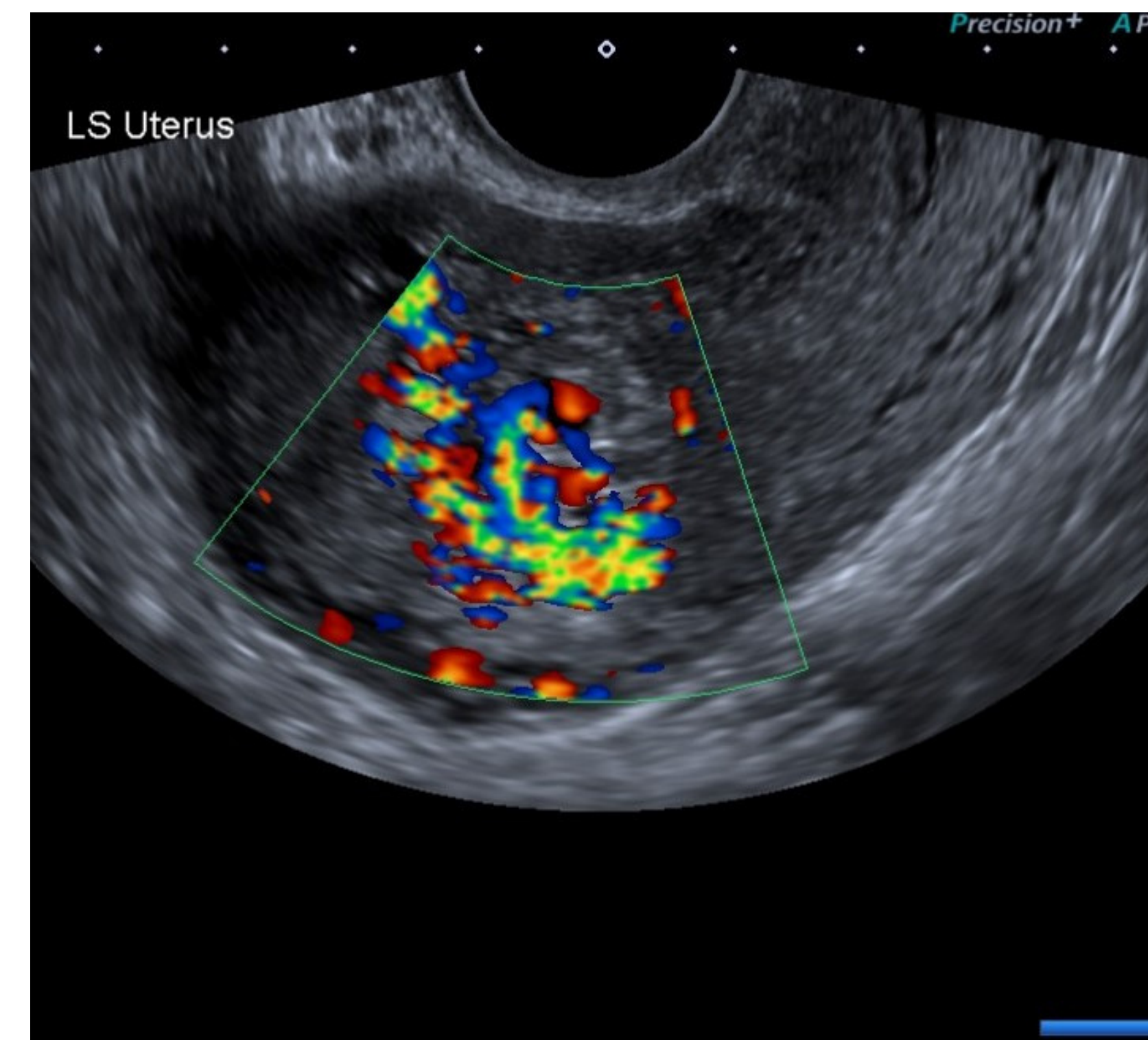
It is very often initially diagnosed as retained products of conception, as was the case in 66% of the cases discussed here.

How is it managed?

Treatment options include expectant management, medical management (combination of GnRH, progesterones, and antifibrinolytics), and embolisation of the uterine arteries.

Methodology

Six patients had a diagnosis of uterine AVM confirmed by colour doppler and/or CT angiography at Sherwood Hospitals NHS trust between 2020-2022.



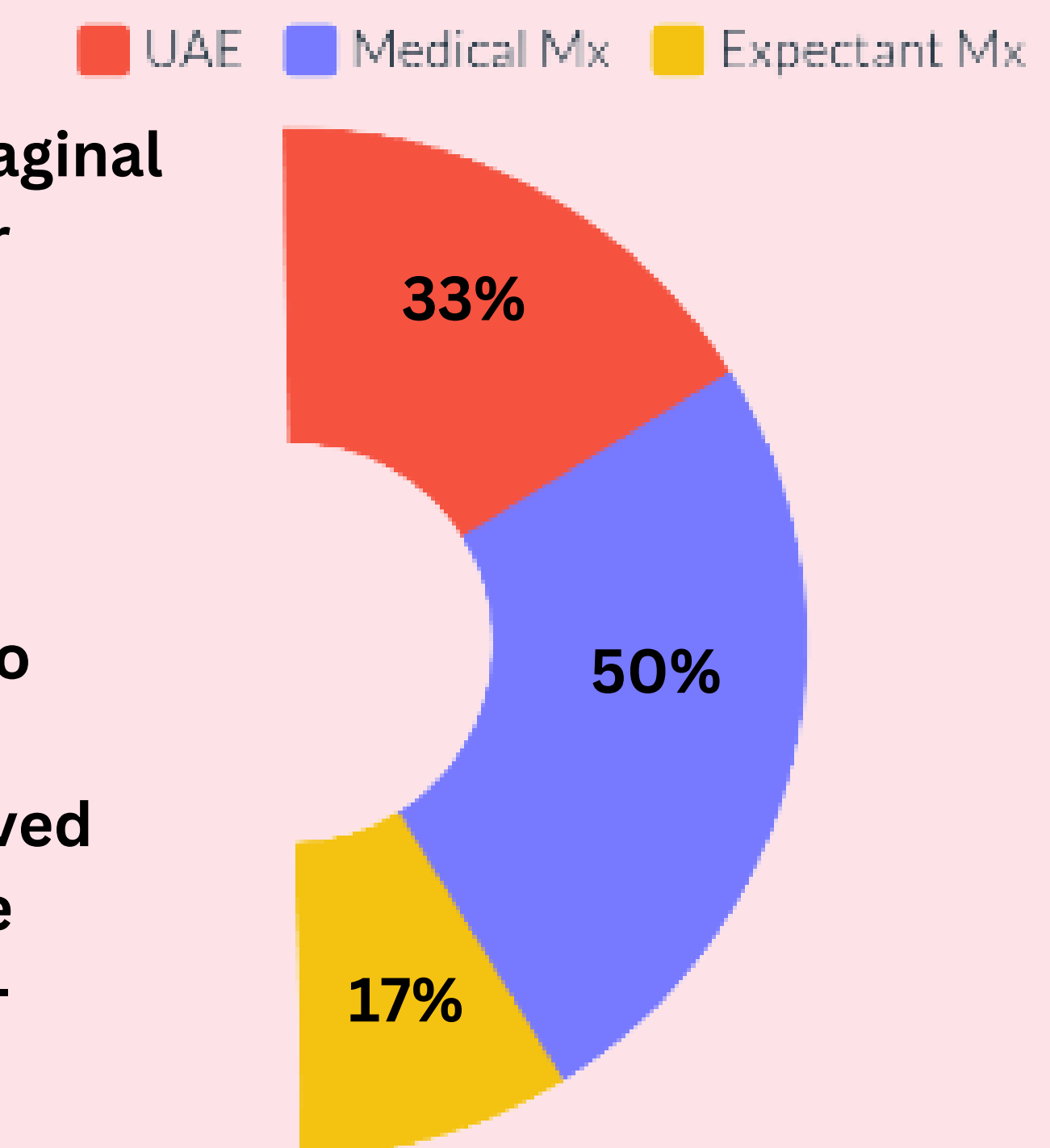
Our Objective

This case series aims to take an overview of the cases seen within the trust and establish common threads in the diagnosis and treatment of this uncommon but potentially life-threatening condition, therefore opening new avenues for research and the development of clinical guidance.

The Data

Of the six patients identified, four presented with persistent vaginal (PV) bleeding following medical management of miscarriage or medical termination. Of the remaining, one presented with spontaneous major PV haemorrhage, and the other with asymptomatic AVM picked up during early pregnancy USS.

Three patients elected to have medical management, while two underwent uterine artery embolisation. One patient who was incidentally diagnosed during pregnancy spontaneously resolved after expectant management with follow up pelvic USS. Of the embolisation cohort, one was treated as an emergency for life-threatening arterial bleeding. All patients achieved complete resolution of AVM.



What can we conclude?

Hear hooves? Think horses, but keep AVM in mind

As can be observed in this series and the literature more generally, AVMs are often initially diagnosed as retained products of conception (RPOC). In some cases, patients have undergone evacuation before AVM is definitively diagnosed. The proximity to RPOC is only enhanced by the association of AVM with recent instrumentation to the uterus. With this in mind, gathering further information about the prevalence of AVM and its relationship to recent procedures would help us to more effectively diagnose AVMs at an early stage.

No Treatment consensus?

The variety of treatment choices in this series demonstrates that there is no consensus on a definitive management option for uterine AVM. Outside of specific circumstances that limit treatment options such as life-threatening haemorrhage and pregnancy, the management of AVM should be individualised and discussed clearly with each patient. Each patient should be able to come to an informed decision about which treatment option is most appropriate for them.