

A Close Curette—A Case Report on a Concealed Arteriovenous Malformation

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INTRODUCTION

Uterine arteriovenous malformations (AVM) are uncommon but can cause serious and torrential uterine bleeding resulting in significant morbidity and mortality (1, 2). Because of the rarity of this condition, or because it may be a missed or overlooked diagnosis where the presentation is assumed to be due to other causes, there is limited high-level evidence to guide management of AVMs. Treatment depends on the haemodynamic status of the patient, desire for future fertility and availability of medical imaging results and surgical expertise.

Medical treatment includes uterotonics and combined oral contraceptive pill, non-steroidal anti-inflammatory drugs, gonadotropin-releasing hormone (GnRH) agonists (4) and antifibrinolytics (5). Surgical management includes uterine artery embolization (UAE) (6), hysteroscopic resection the lesion, laparoscopic coagulation of the AVM (7), hysterectomy (8) and endometrial ablation with products like Thermablate or Novasure.

This case explores the diagnosis and complications of an AVM found in a woman from a rural and geographically isolated setting. After identification, she became unwantedly pregnant, wishing to terminate, but wanting to preserve her fertility. A uterine artery embolization was performed followed by a dilatation and curettage 48 hour later.

CASE

A 29 year old patient G5 P2 T3, was transferred from a rural hospital for management of ongoing vaginal bleeding after a recent surgical termination of pregnancy (STOP) with Mirena insertion. She had ongoing bleeding, her Mirena had dislodged, she was high risk for further significant bleeding and had an USS suggestive of an AVM.

Her history included 2 uncomplicated vaginal deliveries and 2 medical terminations of pregnancy (MTOPs) which resulted in post partum haemorrhages (PPH) up to 3L requiring ICU admissions and transfusion therapy. She has a family history of hereditary telangiectasia which she is being investigated for. No other known medical or haematological disease.

The initial ultrasound (USS) was suggestive of an AVM (Fig 1), hysteroscopy and careful dilatation and curettage confirmed this (Fig 2). She was discharged home and awaited Magnetic Resonance Imaging (MRI) planned 12 weeks later. She continued to intermittently bleed, despite maximum medical management. The MRI confirmed the chronicity of the AVM (Fig 3). Conservative, medical and surgical options were offered. The patient decided to have fertility sparing treatment and was counselled on a UAE to manage her ongoing bleeding.

While waiting for treatment, she became unwantedly pregnant due to non compliance with the OCP. After extensive counselling, she decided to go through with a UAE followed by another STOP 48 hours later to minimise bleeding risk and to preserve her fertility (Fig 4).

Both were successfully performed without complication. She has ongoing follow up.

Fig 1: Ultrasound imaging - vascular uterine mass, vascular retained products of conception

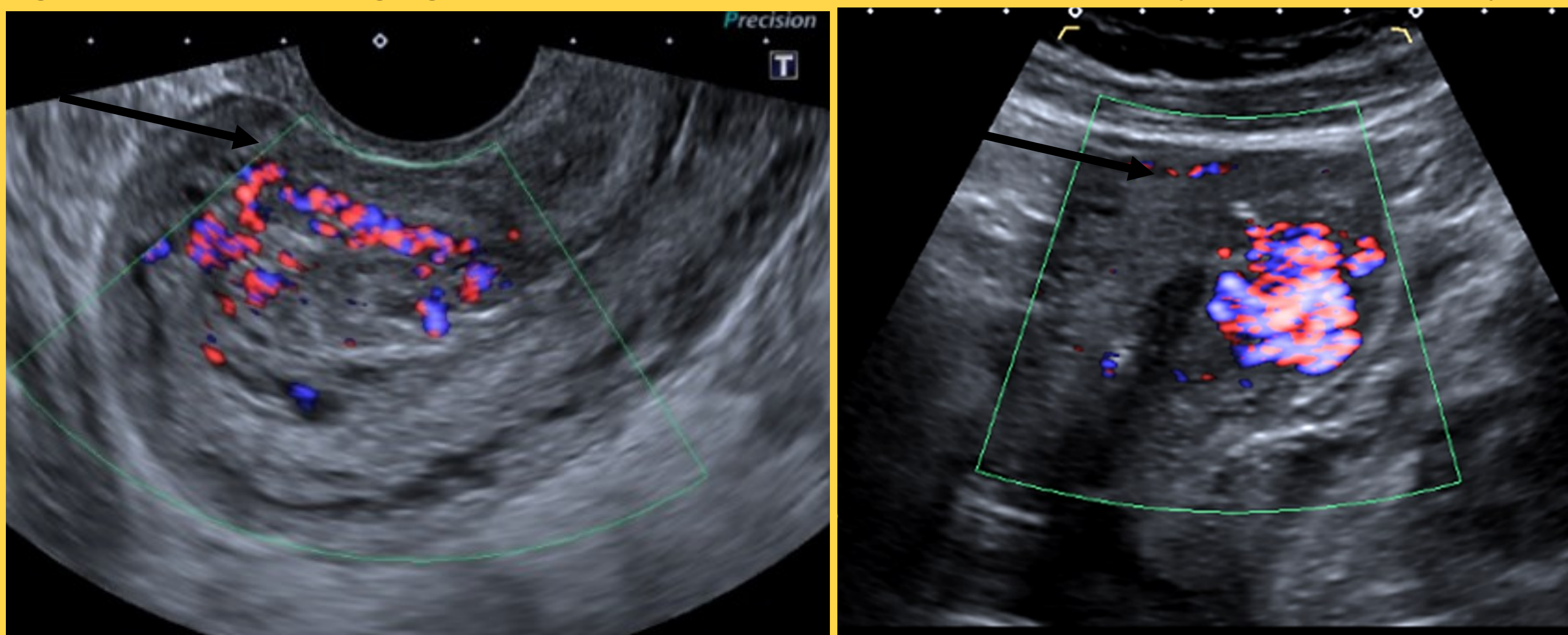


Fig 2: AVM on Hysteroscopy

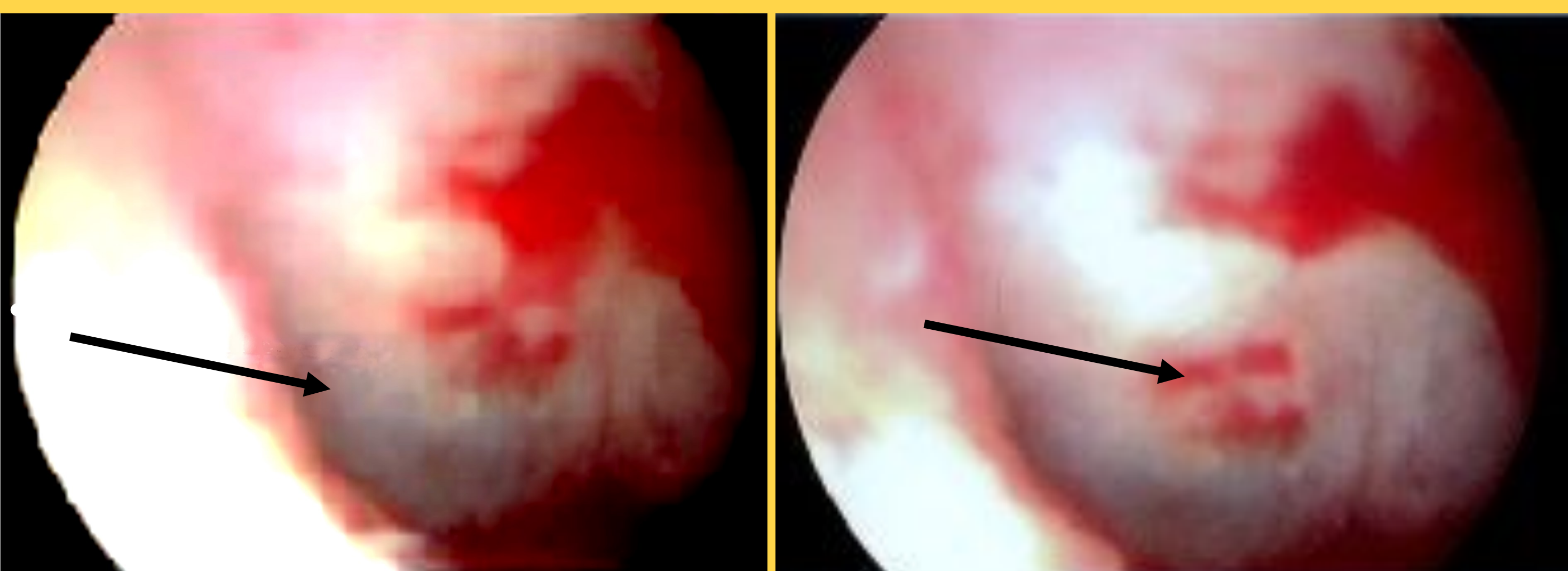


Fig 3: MRI with chronic AVM in situ

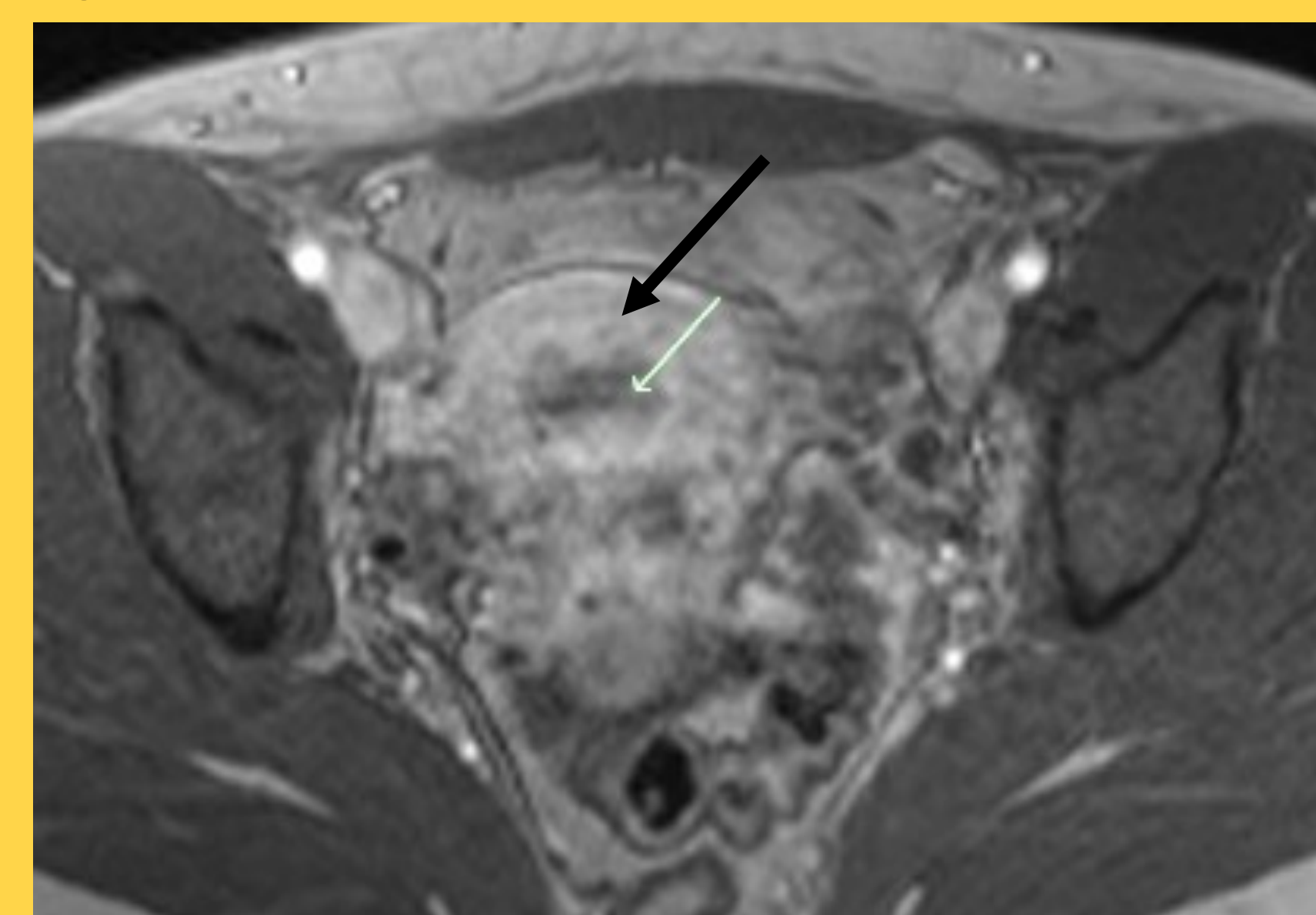
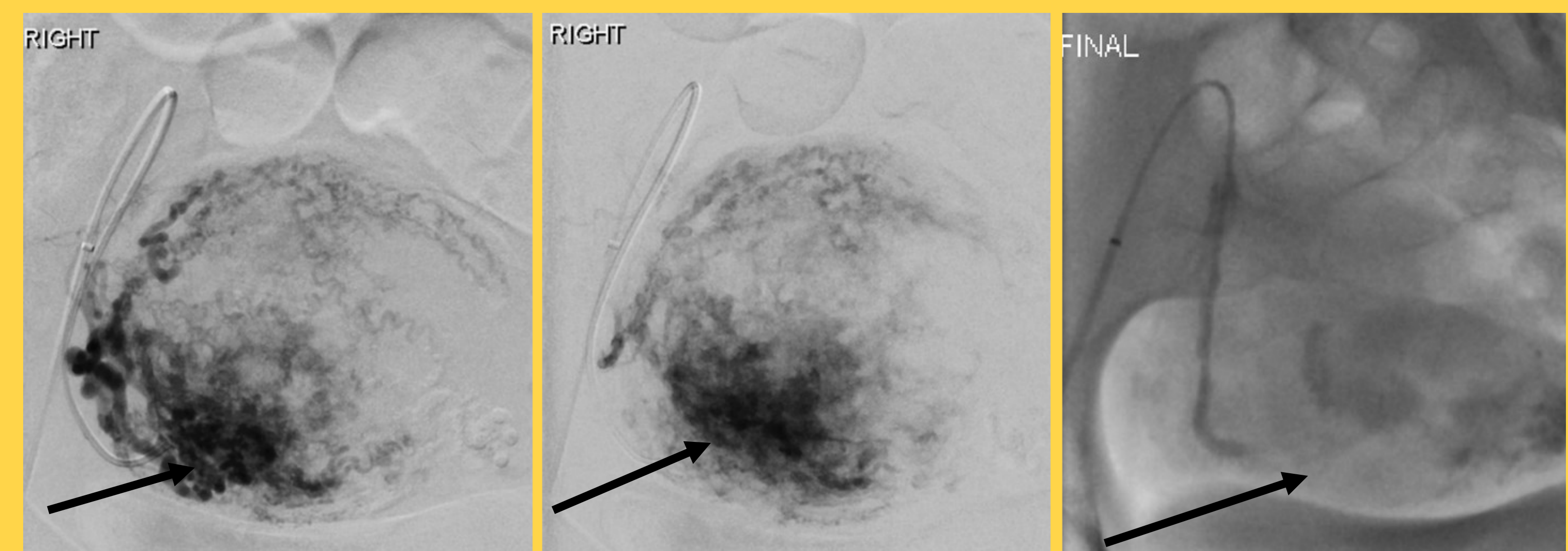


Fig 4: Uterine Artery Embolization



DISCUSSION

- This was a rare case of AVM management with fertility sparing UAE and STOP.
- Early diagnosis of AVMs is crucial to avoid sudden or provoked catastrophic bleeds.
- Acute haemorrhage requiring emergency hysterectomy is an ongoing risk and those women should always be counselled appropriately.
- Multiple treatment routes exist for uterine AVMs. Uterine Artery Embolization can be utilised in those women wanting to preserve their fertility

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CONCLUSION

- This is a novel case of fertility sparing UAE for AVM treatment with successful delayed STOP.
- This case displayed the challenges of AVM diagnosis. MRI or CT angiogram are good imaging modalities
- In this case, medical management was not adequate to control symptoms satisfactorily.
- Geographical features complicated the management of this high risk patients, however good telehealth and MDT involvement aided in optimisation of care and provided good outcomes

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