

Uterine Arteriovenous Malformation: Approach and Treatment in a Nulligravidous Virgin Woman

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Introduction

- Uterine arteriovenous malformation (UAVM) is a rare and potentially life-threatening condition characterized by abnormal connections between uterine arteries and veins.
- To our knowledge, this is the first reported case of UAVM in a nulliparous, virgin patient presenting with profuse vaginal bleeding.

Objectives

- Contribute to the limited literature on UAVM in unique patient populations.
- Discuss treatment approaches with a focus on fertility preservation.

Clinical case

Patient Profile and Presentation:

- A 20-year-old woman presented with heavy vaginal bleeding.
- She had a history of a similar episode requiring blood transfusion and an anaphylactic reaction to tranexamic acid.

Clinical Course:

- Lost 3 liters of blood managed with blood product replacement.
- Patient stabilized with spontaneous cessation of bleeding.

Diagnostic Findings:

- MRI identified a mass-like lesion and abnormal serpentine vessels, suggestive of UAVM.
- Doppler ultrasound: multiple feeding arteries and draining veins, with low RI and high PSV flow.

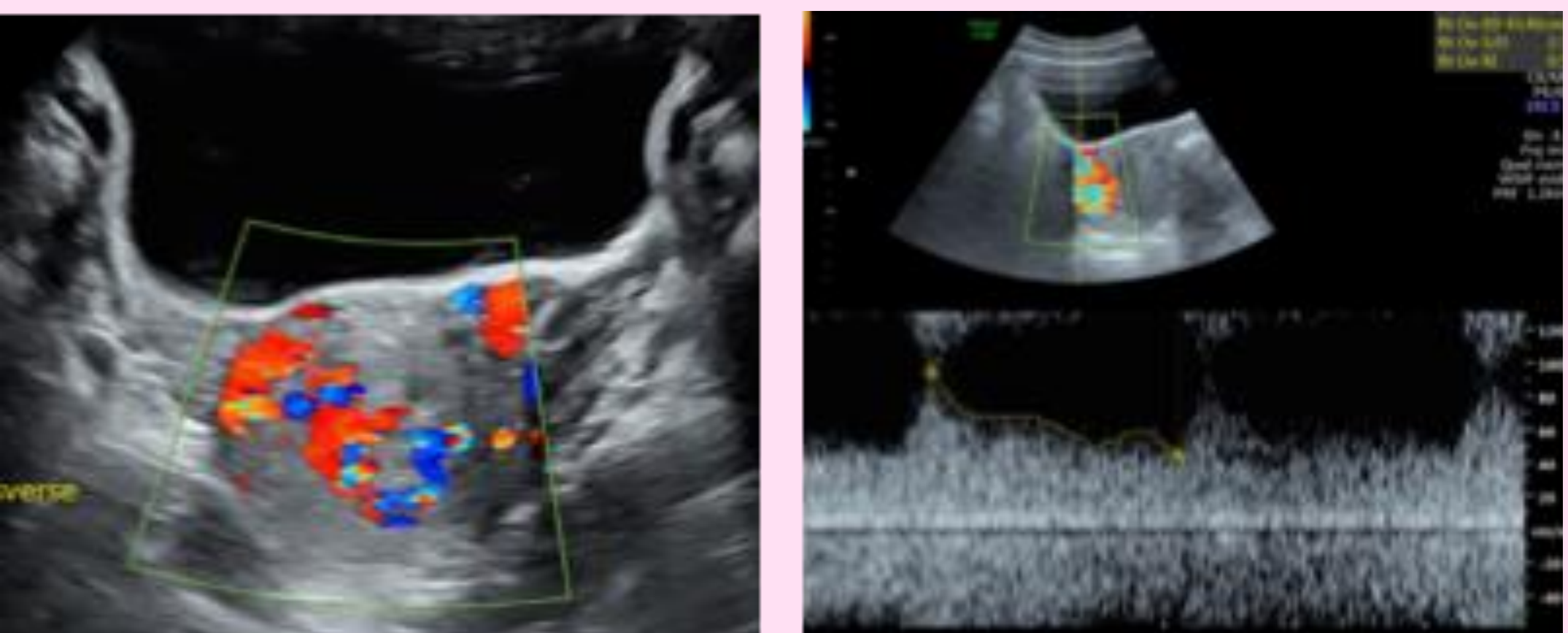
Management:

- She requested a fertility-sparing option and refused all vaginal approaches.
- Offered hysteroscopic resection but declined and underwent UAE with bilateral uterine artery embolization.

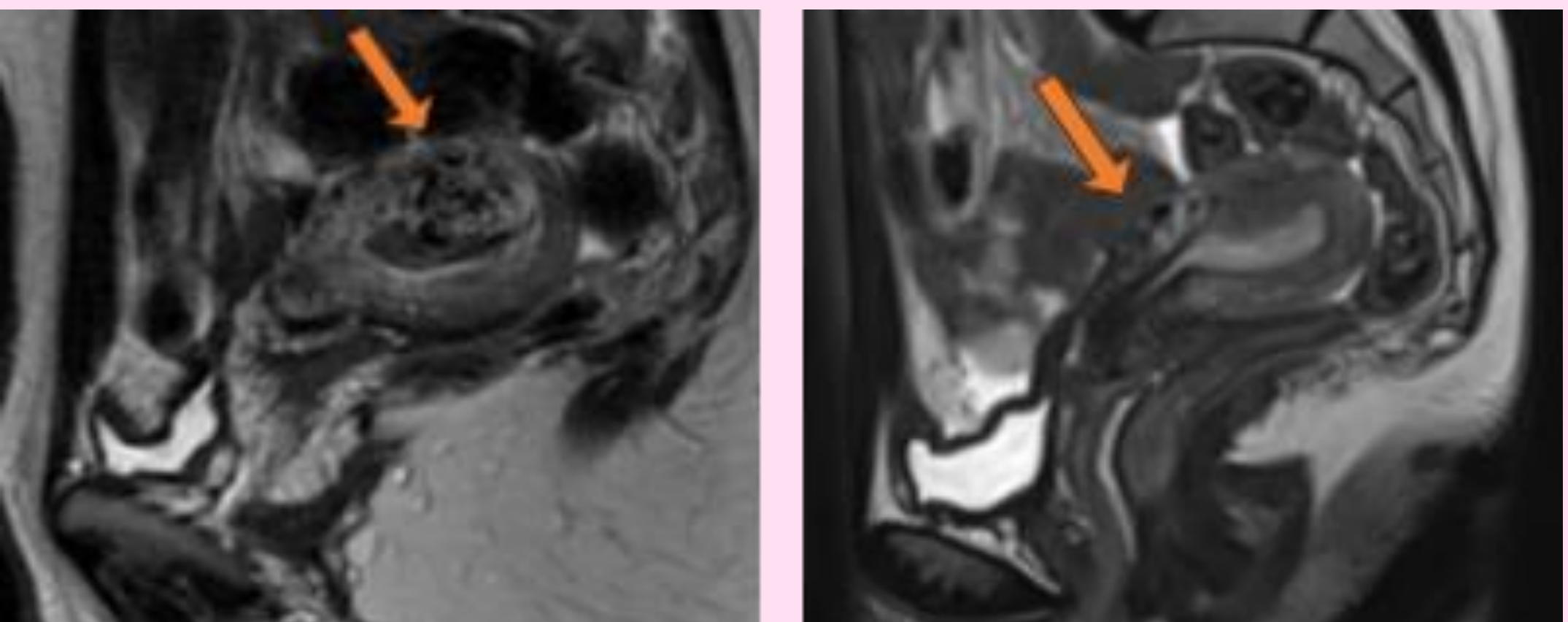
Outcome:

- Two months: MRI showed thrombosed UAVM with minimal persistent activity.
- Three months: FSH and AMH within normal levels.
- One-year: The patient reported no complains and normal menstrual flow.

Figures

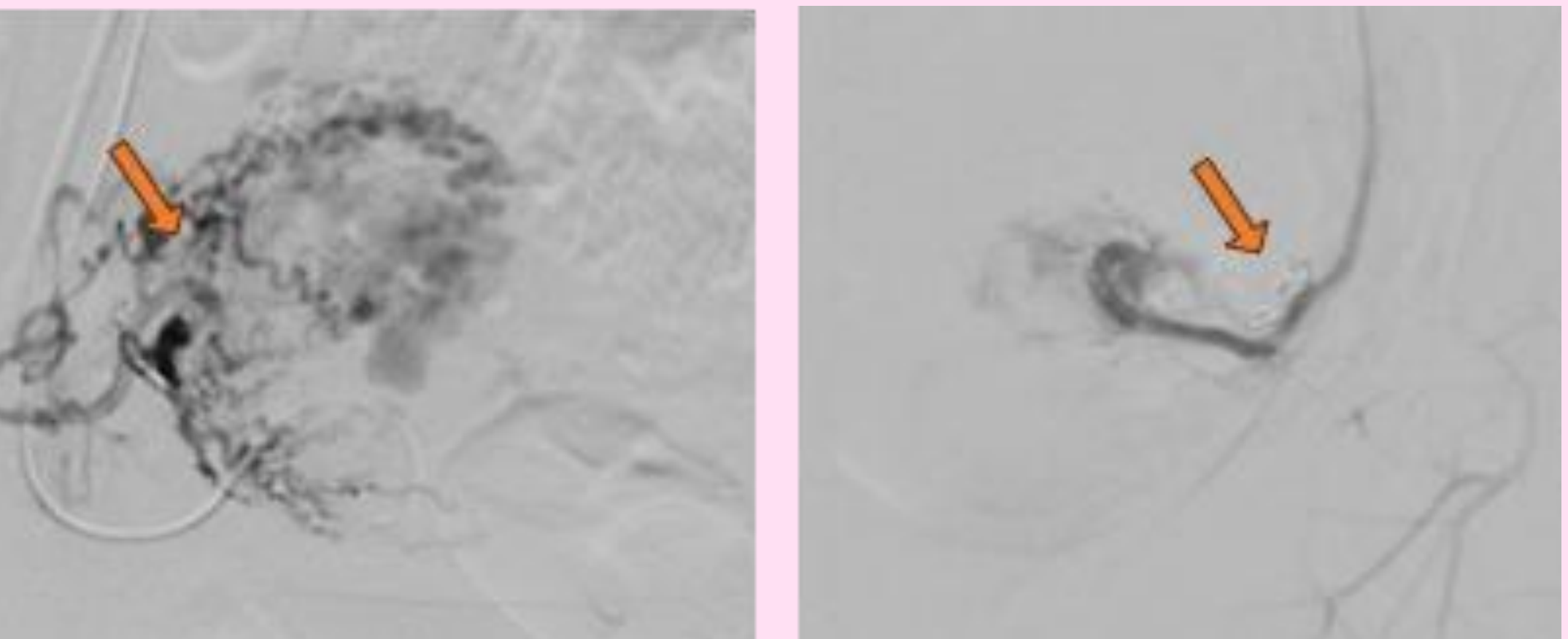


Diagnostic Doppler USS



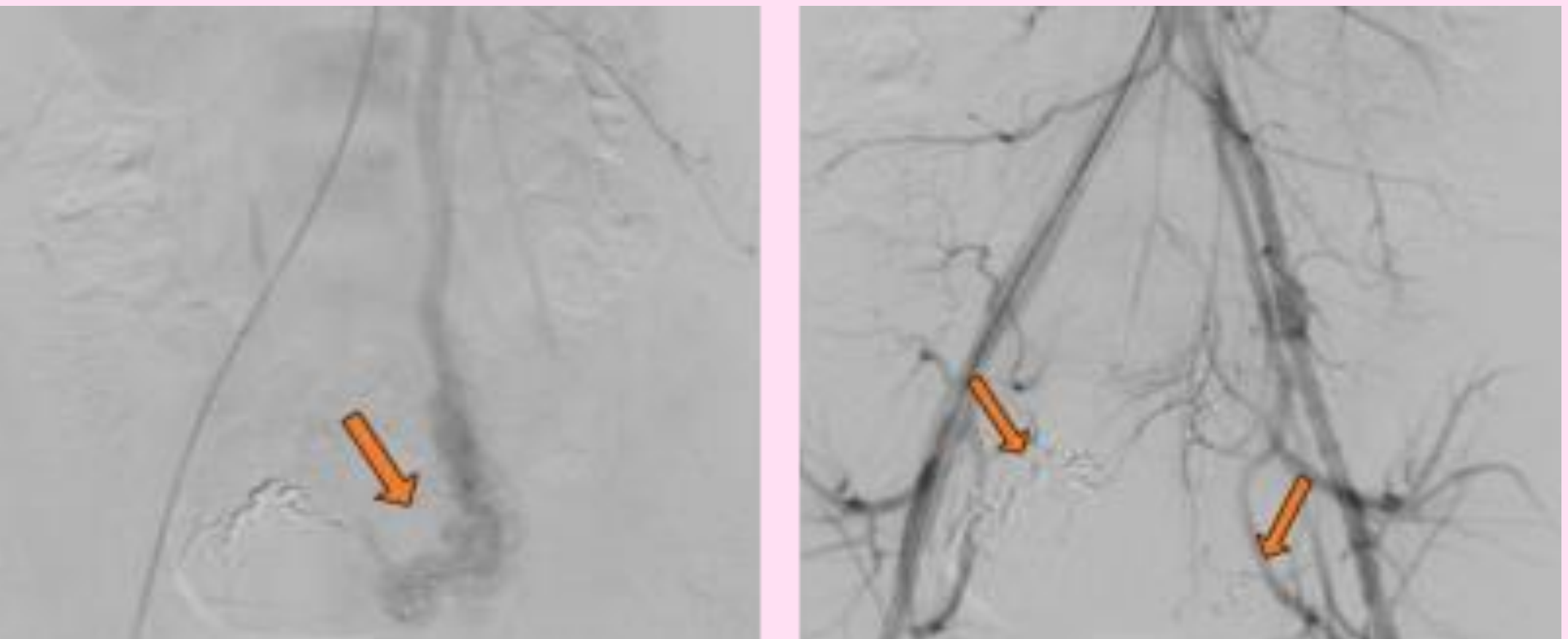
MRI Pre-UAE

MRI Post-UAE



Rt UAE- coil insertion

Lt UAE- coil insertion



Post-UAE procedure angiography

Conclusion

- UAE is an effective treatment option for UAVM. Further studies are needed to compare the efficiency of UAE and hysteroscopic resection.
- Despite multiple life-threatening bleeding events, the patient refused vaginal approaches due to cultural concerns, further studies are needed to investigate this in the middle east.

References

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Abbreviations

- 1- UAVM: Uterine arteriovenous malformation
- 2- UAE: Uterine Artery Embolization