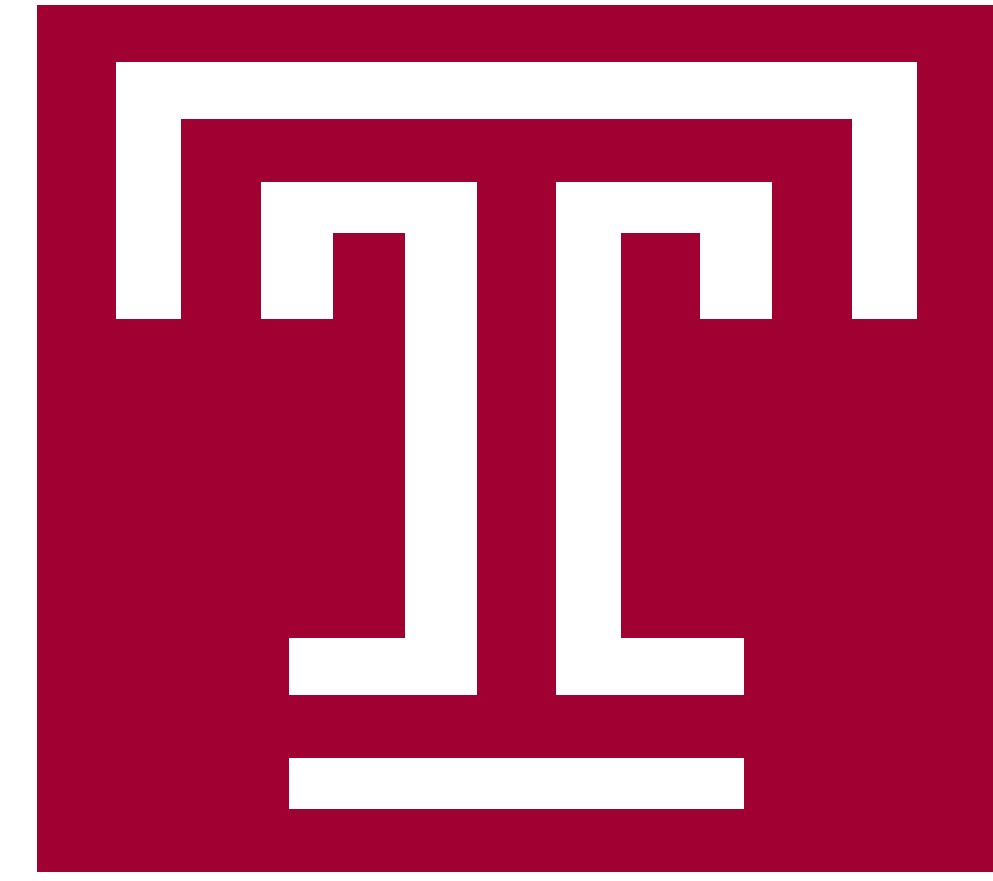




# ***A Case of Interventional Radiology Embolization of Broad Ligament Hemorrhage in a Patient Undergoing Cesarean Delivery***

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## **Introduction:**

- Postpartum hemorrhage is a leading cause of maternal morbidity and mortality
- IR procedures can serve a purpose in both preventing and treating postpartum hemorrhage
- There has been some literature published regarding the utility of prophylactic procedures for patients with abnormal placentation [1], but little on when it is appropriate to take a post-delivery patient to interventional radiology [2]

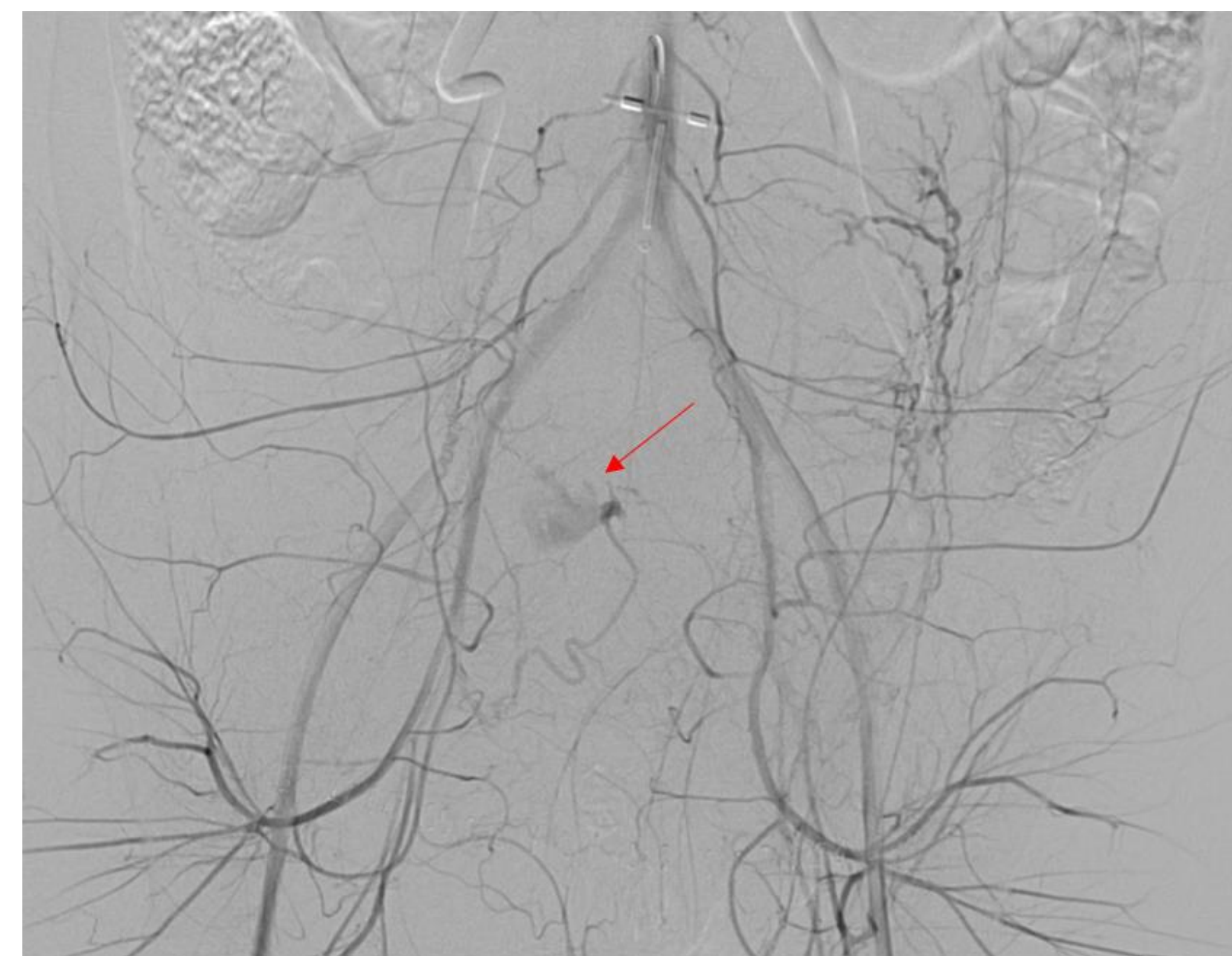


Figure 1: Angiography performed by interventional radiology demonstrating active extravasation from right uterine artery (arrow).

## **Case:**

- 26-year-old G6P3113 presented at 38 weeks and 4 days gestation with SROM at 4cm dilated with plan for repeat TOLAC after two prior VBACs
- An epidural catheter was placed for labor analgesia
- Emergency CD was performed for non-reassuring fetal heart tracing remote from delivery
- Intraoperatively, there was an extension of the right side of the hysterotomy into the broad ligament
- Surgical attempts at controlling the bleeding were unsuccessful
- Topical hemostatic agents were applied to the area, and the fascia and skin were closed
- At this point, the patient was hemodynamically stable, and not requiring any vasoactive agents. She had adequate analgesia from the epidural that remained in place
- Patient was transported directly to the interventional radiology suite, where angiography revealed active hemorrhage extending from the right uterine artery.
- Coil embolization of the right uterine artery was performed, with cessation of active bleeding noted
- The patient remained hemodynamically stable off of vasoactive agents, and was transported to the recovery area in stable condition



Figure 2: Successful coil embolization of right uterine artery (arrow).

## **Discussion:**

- No clear guidelines exist on which to base the decision to proceed to IR with a patient experiencing postpartum hemorrhage
- Bleeding must be clinically significant and difficult to control from a surgical approach, but patient must be hemodynamically stable enough to safely be transferred to another area of the hospital and undergo a minimally-invasive procedure
- This case highlights the importance of a team-based approach to decision making, between the interventional radiology, anesthesiology, and obstetric teams as to when it is appropriate to take this approach
- Cases such as these may help in the development of clinical guidelines to help determine which patients may benefit from interventional radiology treatment for postpartum hemorrhage

## **References:**

1. Lambrecht, S. & Van De Velde, M. (2020). Interventional radiology for the obstetric patient. *Current Opinion in Anaesthesiology*, 33 (4), 566-570. doi: 10.1097/ACO.0000000000000884.
2. Soyer, P., Dohan, A., Dautry, R. et al. Transcatheter Arterial Embolization for Postpartum Hemorrhage: Indications, Technique, Results, and Complications. *Cardiovasc Intervent Radiol* 38, 1068–1081 (2015). <https://doi.org/10.1007/s00270-015-1054-y>