

# A Rare Case of Uterine Artery Pseudoaneurysm Requiring Embolization in Pregnancy

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## Introduction & Aim

Uterine artery pseudoaneurysm (UAP) in pregnancy is life-threatening for both mother & fetus, due to the risk of rupture. Presentation may vary from asymptomatic, hydronephrosis secondary to ureteric compression, abdominal pain and vaginal bleeding and death. Here we present our experience with a case of UAP diagnosed during the second trimester.

## Case

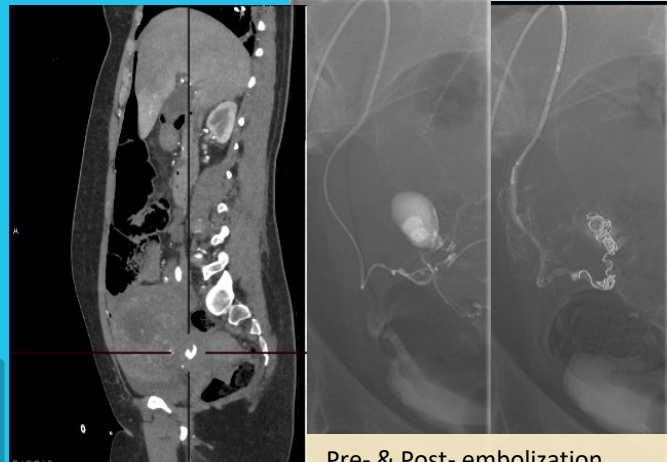
A 36-year-old G1P0 was transferred from a rural hospital at 18 weeks gestation with acute abdominal pain and the differential of ruptured haemorrhagic cyst. She had a background of in vitro fertilisation (IVF), endometriosis, and one prior laparoscopy. Abdominal ultrasound prior to transfer demonstrated large volume free fluid and haematoma surrounding the right ovary. On arrival she was haemodynamically unstable, necessitating resuscitation with transfusion and emergency diagnostic laparoscopy. No clear source of bleeding or ovarian cyst rupture were identified intra-operatively despite haemoperitoneum of approximately 2.2 litres. An abdominal drain was inserted at this time. Due to high drain output, a CT angiogram was performed which demonstrated pseudoaneurysm of the right uterine artery without active bleeding. Due to high risk of recurrence, she underwent endovascular coil embolization.

## Results

The pregnancy was closely monitored with serial ultrasounds and regular review. She was recommended & proceeded with elective caesarean section at 39+1, complicated by postpartum haemorrhage (PPH) 900mL. Birthweight was 3290g 46%. The placental disc weighed 565g and demonstrated small peripheral infarct only. The patient had repeat CT angiogram postpartum which demonstrated residual uterine artery aneurysm, which was further embolised on day 5 postpartum. Her postpartum recovery was otherwise normal.

## Discussion & Conclusion

UAP is an uncommon condition that can occur after traumatic injury to a vessel following pelvic surgery<sup>1</sup>. Endometriosis & surgery for endometriosis are considered risk factors for pseudoaneurysm formation<sup>2</sup>. This case adds to previous literature which suggests fetuses can safely tolerate selective unilateral uterine artery embolization<sup>3</sup>. Endovascular coil embolization during pregnancy is a safe & effective treatment for UAP.



Multilobulated aneurysmal dilation of the right uterine artery

Pre- & Post- embolization with a single 4 x 130 Azur CX18 followed by x3 pushable fibred 4 x 40 vortex 18 coils

## References:

1. Zwimpfer TA, Monod C, Redling K, Willi H, Takes M, Fellmann-Fischer B, Manegold-Brauer G, Hösl I. Uterine pseudoaneurysm on the basis of deep infiltrating endometriosis during pregnancy—a case report. *BMC Pregnancy Childbirth*. 2021 Apr 9;21(1):282. doi: 10.1186/s12884-021-03753-1.
2. Brtnický T, Chmel Jr R Jr, Nováčková M, Pavlík R, Chmel R. Uterine artery pseudoaneurysm in pregnant women with previous pelvic endometriosis. *Minerva Obstet Gynecol*. 2022 Apr;74(2):193-197. doi: 10.23736/S2724-606X.21.04834-X.
3. Ugwumadu L, Hayes K, Belli AM, Heenan S, Loftus I. Uterine artery pseudoaneurysm requiring embolization in pregnancy: a case report and review of the literature. *CVIR Endovasc*. 2018;1(1):31. doi: 10.1186/s42155-018-0040-2.