

COUVELAIRE UTERUS IN A NULLIPAROUS PATIENT: A CASE REPORT

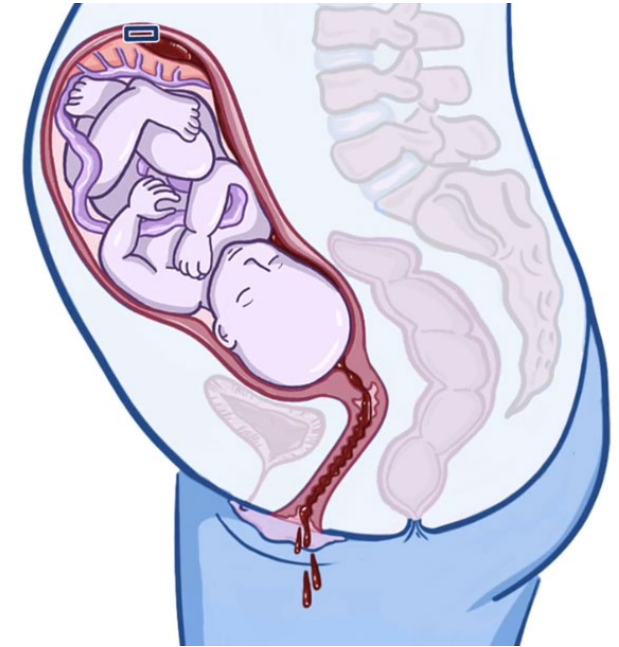


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BACKGROUND:

- Placental abruption affects up to 4% of all pregnancies
- Causes abdominal pain and vaginal bleeding, and can lead to coagulopathy, hemorrhagic shock, and fetal harm or death
- Risk factors: AMA, PROM, trauma, multiparity, chorioamnionitis, substance use disorder, preeclampsia, hypertension, and smoking¹



CLINICAL PRESENTATION AND COURSE

34-year-old G1P0 female at 25W6D

PMHx: none

PRESENTATION

- Arrived from OSH w/BP 66/37mmHg, HR 137, pallor, diaphoresis, disorientation, and severe neck pain
- US w/normal fetal heart tones and blood at uterine fundus
- FAST w/intraperitoneal fluid and possible pericardial effusion

PRE-OPERATIVE

- Hgb 6.8, lactate 5.1
- Two large bore IVs, arterial line, 2L crystalloid, and MTP initiated
- Given unstable vitals & c/f free fluid in abdomen, transferred emergently to OR
- RSI performed
- RIJ CVC placed

INTRAOPERATIVE

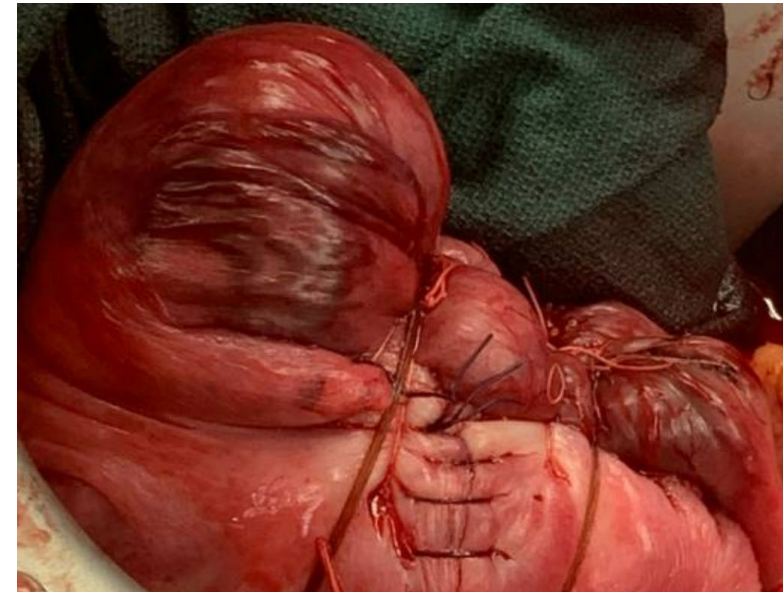
- Incision revealed 3L hemoperitoneum requiring aortic compression
- Hematoma and posterior uterine rupture with placenta beyond the serosa
- Classical cesarean performed, baby transferred to the NICU
- Uterus closed w/B-Lynch suture, patient underwent uterine artery embolization

Discussion

POST-OP

- POD 2 taken back to OR for abdominal washout and closure, extubated upon return to SICU
- POD 3 transferred back to L&D
- POD 8 discharged
- Infant w/APGARS 1/1/3, immediately intubated, deceased on POD 9

- **Surgical Diagnosis: Couvelaire uterus**
- Result of placental abruption w/bleeding into the myometrium
- Can lead to uterine rupture and complicates about 5% of abruptions²
- Diagnosis is through visual inspection or pathological examination; the uterus appears stained a port wine color due to hemorrhage in the myometrium
- Risk factors include those of abruption (none of which were present in our patient). Overlapping symptoms with both abruption and uterine rupture can complicate diagnosis
- Treatment involves emergency cesarean delivery with hemorrhage and coagulopathy management
- In one study, maternal mortality reached 5%³. Although rare, maintaining a high level of suspicion for this devastating complication can prevent patient and fetal morbidity and mortality



References:

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2. Habek, D., Selthofer, R. and Kulaš, T. (2008). Uteroplacental apoplexy (Couvelaire syndrome). *Wiener klinische Wochenschrift*, 120(3-4), pp.88–88.
3. Sunanda N, Sruthi T and R, S.S. (2018). Feto-maternal outcome in patients with couvelaire uterus: a 3 year study in a tertiary care hospital in rural Karnataka, India. *International Journal of Reproduction Contraception Obstetrics and Gynecology*, 7(2), pp.503–503.