



Hemorrhagic Shock in an Obstetric Patient Secondary to Ruptured Couvelaire Uterus Resulting in Emergent Cesarean Hysterectomy with Massive Transfusion Protocol

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Clinical Presentation

- 34-year-old G4P3003 presented to the ED at 30w6d with extremity swelling and chest pressure
- PMH: Obesity (BMI 38.8), chronic HTN, gestational DM, 3 uncomplicated vaginal deliveries
- Diagnosis: Preeclampsia with severe features
- Plan: Admit to antepartum and deliver at 34 weeks' gestation.
- Patient left AMA on HD4, re-presented 3 days later with severe constant abdominal pain and bright red vaginal bleeding.

Clinical Course

- Fetal Ultrasound and cervical exam with loss of fetal parts.
- Placental abruption with IUFD.
- Induction of Labor and Epidural for pain management.
- Developed significant hypotension and new onset somnolence.
- Massive Transfusion Protocol was initiated and emergent laparotomy was performed.
- Large uterine rupture along the right uterine sidewall and an empty Couvelaire uterus were noted.
- Large volume hemoperitoneum, amniotic sac containing demised infant and placenta were evacuated.
- Hysterectomy was performed when attempts to achieve hemostasis failed.
- Transferred to the SICU intubated. Extubated on POD1 and discharged on POD4.

Couvelaire Uterus



- Couvelaire uterus or uteroplacental apoplexy: Rare non-fatal complication of concealed severe placental abruption. Diagnosis is made surgically, by visually noting dark purple patches with ecchymosis and indurations on the uterus.
- Caused when hemorrhage from placental blood vessels seeps into decidua basalis causing placental separation, followed by infiltration in the lateral portions of the uterus and rarely into the peritoneal cavity.
- Couvelaire uterus does not impact uterine contraction ability and can be managed conservatively.
- Hysterectomy is only indicated when hemostasis can not be achieved.

Risk Factors include:

- Advanced maternal age
- maternal hypertension
- Smoking
- low social economic status
- multiple pregnancies
- Polyhydramnios
- history of abruption

References:

- Military Medicine, March-April 2017; Volume 182:1877-1879
- J Obstet Gynaecol India. 2016 Oct; 66(Suppl 1):51–54
- Am J Obstet Gynecol. 2017 Mar;216(3):298.e1-11

