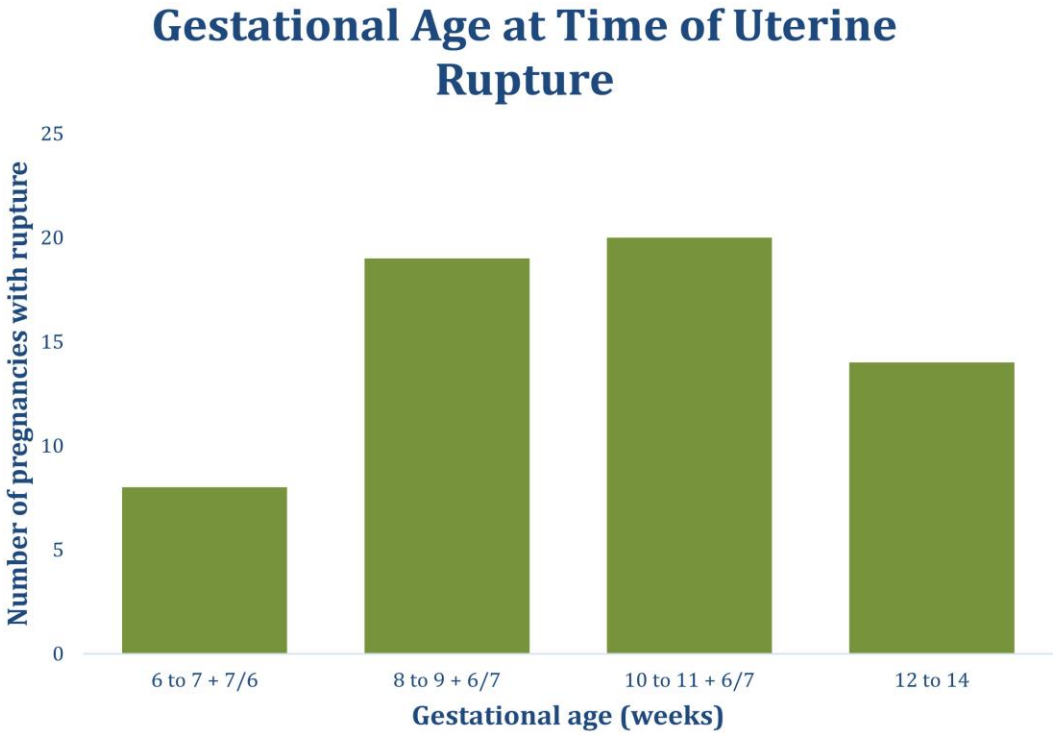
Early Gestational Rupture: A Rare Anesthetic Emergency at 13 Weeks

Chloe Abbott BS, Tyler King MD, Shriram Mahabal MD, John Thomas MD
Department of Anesthesiology, Atrium Health Wake Forest Baptist Medical Center, Winston-Salem, NC

Background

- Uterine Ruptures are an obstetric emergency.
- Around 2.4-3.0 ruptures in every 10,000 deliveries.[1]
- Early-gestation rupture is often overlooked due to nonspecific symptoms and low clinical suspicion and as a result, diagnosis is frequently delayed
- Emergency intervention is necessary to prevent life-threatening hemorrhages and improve maternal morbidity.
- Emerging literature demonstrates that uterine ruptures can occur as early as 9-11 weeks' gestation.[2]



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2. Perdue M, Felder L, Berghella V. First-trimester uterine rupture: a case report and systematic review ofthe literature. *American Journal of Obstetrics and Gynecology*. 2022;227(2):209-217.doi:10.1016/j.ajog.2022.04.035

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Case Report

- 40-year-old female G6P1A5 at 13W + 5D
- Presented with acute abdominal pain, hypotension, and tachycardia
- Patient h/o:
  - Low transverse C-section 7m prior
  - Transabdominal cerclage
  - Pyelonephritis
- On labs: severe anemia, metabolic acidosis, and worsening coagulopathy
- Diagnosis:
  - NCCT: Full-thickness myometrial defect; peri-uterine hematoma and hemoperitoneum
  - In OR- Emergency exploratory laparotomy that showed a 4-cm uterine rupture
- Anesthetic approach:
  - General anesthesia (sevoflurane); A-line and double lumen CVC
  - Vasopressors used- Norepinephrine and Phenylephrine
  - Due to massive blood loss (2L): 7 L crystalloid, 4 units pRBCs, and 1 unit of FFP
  - Remained intubated postoperatively 2º to metabolic acidosis (extubated POD1)
- She recovered without complication and was discharged on POD5

Teaching Points

- This case demonstrates that spontaneous uterine rupture can occur in early pregnancy, even following a low transverse cesarean incision and outside the intrapartum period.
- Clinical presentation varies widely and occurs at various gestational age.
- In a review of 61 early-gestation uterine ruptures, abdominal pain was the most common presenting symptom (97%), followed by vaginal bleeding (23%), syncope (16%), and gastrointestinal symptoms such as nausea and vomiting (7%).
- Uterine rupture should remain in the differential diagnosis for pregnant patients **regardless** of gestational age especially if they are presenting with
  - Acute abdominal pain
  - Hemodynamic instability
  - Unexplained anemia
- Early recognition and prompt surgical intervention are critical to minimizing maternal morbidity and mortality