# Ruptured by Surprise: Uterine Rupture in a Nulliparous Patient without Risk Factors

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## Background

Uterine rupture occurs in 0.002-0.005% of pregnancies. Known risk factors include AMA, uterine anomaly, PAS, h/o cerclage, macrosomia, prolonged/obstructed labor, multifetal gestation, high parity, short interval pregnancy, and exposure to uterotonics. Previous case reports have also described uterine rupture in the setting of trauma, adenomyosis, connective tissue disease and chronic steroid use. We describe a patient without known risk factors who presented with uterine rupture.

## Case Presentation

27 y/o G1P0000 at 37w5d with a PMH of 3cm anterior lower uterine segment fibroid who presented to L&D triage for acute onset abdominal pain which woke her out of sleep. VSS. On physical examination, abdomen diffusely tender with rebound. Unremarkable speculum exam. Bedside ultrasound yielded vertex fetus and fundal placenta without separation.
FHT: Baseline 120, periods of minimal and moderate variability, no accelerations or decelerations.
Tocometry: sawtooth irritability pattern.
Labs: H/H 12.5/38, K 3.0; Fibrinogen 409, aPTT 27.3, PT/INR 10.3/0.9

## Images

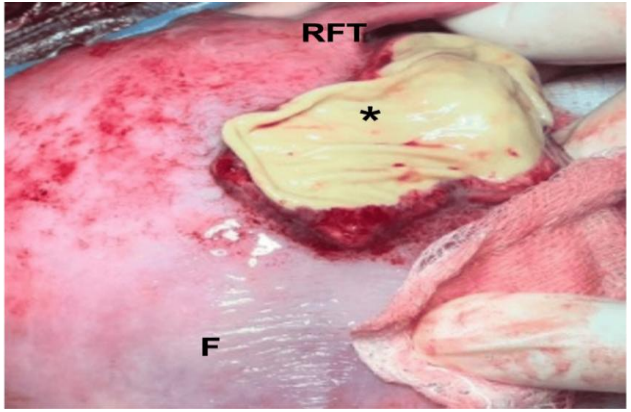



Figure 1. Gross incomplete uterine rupture.

## Hospital Course

Given acute abdominal exam and concern for placental abruption given non-reactive fetal
heart tracing and tocometry pattern, delivery was recommended via CS and patient was
promptly taken to the OR. OR findings: 1L hemoperitoneum. Large 15x5cm area of partial uterine rupture involving myometrium and serosa on posterior left uterus, extending from left uterosacral ligament to mid-uterine segment. No extension of the defect into endometrial cavity. Defect was bleeding and was repaired in 2 layers. Evidence of superficial endometriosis on the right lower uterine segment.

## Conclusion

Previous case reports have demonstrated uterine rupture in setting of endometriosis. Endometriosis can have a varying course during pregnancy and associated pregnancy complications such as endometrioma rupture and intestinal perforation have been reported. Proposed mechanism of uterine rupture is decidualization of endometriosis causing vascular remodeling, increase in glandular epithelial secretion, and differentiation into secreting decidual cells resulting in edema, hemorrhage, and inflammatory infiltrate.

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