37-year-old G2P0010 at 15 weeks gestation with abdominal pain.

Whitney Wolaver, MS4
Virginia Commonwealth University School of Medicine

Ty Gardner, MD (R2)
Peter Haar, MD, PhD
Virginia Commonwealth University School of Medicine
Patient Presentation

• HPI: 37-year-old G2P0010 at 15 weeks gestation with no prenatal care (EDD via bedside ultrasound in the ED 9 days prior) presented with abdominal pain and presyncope. Pt denies vaginal bleeding or cramping.

• PMH: IV heroin use (last use ~2 yrs ago) now on suboxone

• PSH: dilation & curettage in 2014

• Pregnancy history: 1 previous spontaneous abortion

• Vitals: Temp: 36.5°C (97.7°F), BP: 89/56, HR: 92, RR: 18

• Physical exam:
  • Distended abdomen with guarding and rebound tenderness
  • No vaginal bleeding or discharge
Pertinent Labs

- Hgb = 4.6 g/dL
- Hematocrit = 14.5%
- Lactate = 1.8 mmol/L
- Platelets wnl
What Imaging Should We Order?
This imaging modality was initially ordered by the ER physician.

This was an appropriate choice for initial imaging.
Ultrasound Findings: Labeled

- Fetus measuring approximately 15w6d by biparietal diameter with +FHTs and fetal movement
- Gestational sac appears to be intrauterine (US findings c/w 2 previous bedside US performed 5 and 9 days prior)
- Large volume of intraperitoneal fluid noted, concerning for hemoperitoneum given low hgb and hypotension

*Given unclear etiology of the patient’s presentation and high degree of concern for hemoperitoneum, the ED physician ordered a CTA abdomen/pelvis w/IV contrast for further evaluation
CTA Findings: Unlabeled
CTA Findings: Labeled

Hemoperitoneum
CTA Findings: Unlabeled
CTA Findings: Labeled

- Fetal structures seen w/in cystic cavity outside normal uterus
- Uterus (with no intrauterine pregnancy)
- Cystic cavity containing fetal parts, clearly outside of normal uterus
- Top of uterus
Final Dx:

Ruptured Ectopic Pregnancy at 15 wks

*Note: after CTA was read, which revealed concern for ruptured ectopic pregnancy, patient was rushed to the OR with OBGYN where she had an ex-lap with evacuation of the hemoperitoneum (~2L evacuated) and removal of the ruptured ectopic pregnancy via right salpingoophrectomy. Patient had no major complications from surgery and was discharged on POD4.
Ruptured Ectopic Pregnancy

• Occurs in 1-2% of all pregnancies

• Approximately 96% of ectopic pregnancies occur in the fallopian tubes
  • 70% of tubal ectopic pregnancies occur in the ampulla

• Presentation: most commonly presents with vaginal bleeding and/or abdominal pain

• Major risk factors:
  • Pelvic inflammatory disease
  • Previous ectopic pregnancy
  • Previous tubal surgery

• Imaging findings:
  • US is the initial modality of choice, with MRI being the next best choice
  • US can confirm the presence of an IUP (embryo or yolk sac within endometrial cavity), which essentially rules out the possibility of an ectopic pregnancy
  • A complex adnexal mass is the most common US finding in ectopic pregnancy
References:

• ACR Appropriateness Criteria https://acsearch.acr.org/list


• Tulandi, MD, Togas. *Ectopic Pregnancy: Epidemiology, Risk Factors, and Anatomic Sites*. UpToDate.

• Tulandi, Togas. *Ectopic Pregnancy: Clinical Manifestations and Diagnosis*. UpToDate.