# The Evil Twin: The Case of Heterotopic Pregnancy

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### Introduction

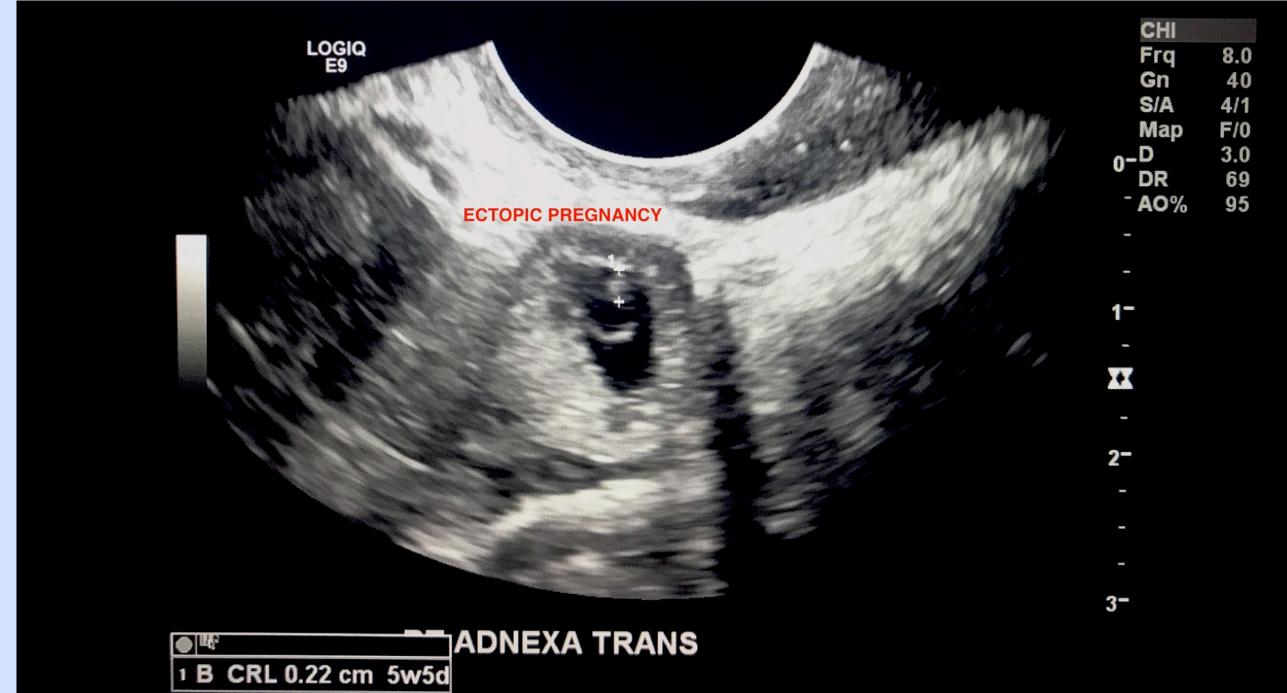
- Heterotopic pregnancy occurs in about 1 in 30,000 naturally conceived pregnancies (5). The risk rises 1-3% for pregnancies occurring through assisted reproductive technologies (ART) (1).
- Isolated ectopic pregnancy affects an average of 1 in every 150 live births (1).
- A known pre-existing intrauterine pregnancy (IUP) can be falsely reassuring and delay the diagnosis of a potentially life-threatening concurrent ectopic pregnancy.
- Presentation is vague and 45% of patients have no symptoms (5).
- Differential Diagnoses: endometritis, incomplete miscarriage, ruptured ovarian cyst, non-GYN cause (ie: appendicitis or UTI).
- Risk Factors: Infertility treatment, in vitro fertilization (IVF), prior ectopic, prior tubal surgery, use of IUD, smoking (1).
- These patients are more likely to have spontaneous or medically induced abortions, and are 30% less likely to have live-birth delivery.
- Laparoscopy or laparotomy are standard of care. They carry a 58-70% success rate of parturition for the IUP (1).

## Case Report

- 27 year old female, G3P2002 presents with abdominal pain. Reports +home pregnancy test. Beta HCG 7312. Ultrasound showed a gestational sac measuring 0.79 cm with a right adnexal mass measuring 1.4 x 1.1 x 1.3 cm. It is centrally anechoic with peripheral surrounding ring of tissue. Findings raise the possibility of an associated ectopic pregnancy.
- UA was positive.
- OBGYN consulted and recommended patient be discharged with antibiotics for UTI and follow up instructions.
- The patient returned 5 days later with LLQ and suprapubic pain. Labs were unremarkable. UA improved from prior. Beta HCG 18,016.
- Repeat Pelvic Ultrasound: single live IUP (6wks) with a single live ectopic pregnancy in right adnexa (5wks 5days).
- Patient hemodynamically stable. She had no risk factors for heterotopic pregnancy.
- OBYN Consulted: Patient taken to the operating room.

#### Pictures





#### References

- Hewlett, K., Howell, C. "Heterotopic pregnancy. Simultaneous viable and nonviable pregnancies." *Journal of the American Academy of Physician Assistants.* March 2020.
- 2) Nabi, U., Yousaf A. et al. "Heterotopic Pregnancy A Diagnostic Challenge. Six Case Reports and Literature Review." Cureus. Nov. 2019.
- 3) Selvaraj, P., Selvaraj, K. "Heterotopic pregnancy: Rare occurrence of a 12 week ruptured right isthmo-cornual ectopic along with a viable intrauterine pregnancy." Journal of Human Reproductive Sciences. June 2012.
- 4) Thakur, U., Atmuri, K., et al. "Acute pelvis pain following miscarriage heterotopic pregnancy must be excluded: case report." BMC Emergency Medicine. Oct. 2019.
- Wong, CM, Ganesh, R, et al. "Ectopic Pregnancy: Uncommon Presentations and Difficulty in Diagnosis." *Med J.* March 1999.

## Hospital Course

- The patient returned to the ED 5 days after initial presentation on for recurrent abdominal pain.
- She was hemodynamically stable. Beta HCG had increased appropriately.
- Ultrasound: single IUP (6 weeks) and a single live ectopic pregnancy in right adnexa (5 weeks 5 days), left ovarian complex cystic lesion
- OBGYN consult: determined the patient needed surgical intervention for ectopic pregnancy
- Operative course: Laparoscopic right salpingectomy
- Patient was discharged home after an uncomplicated post-op course
- Post op day 5: Patient returned with abdominal pain and had CT imaging completed. Unremarkable and confirmed presence of IUP at this time.
- Patient returned approximately 2 months later with pelvic cramping and vaginal bleeding. Labs revealed leukocytosis, anemia (Hb 7.7). No IUP identified on US; consistent with spontaneous abortion. Beta HCG 32,059.
- OBGYN consulted and patient underwent medicallyinduced abortion followed by D&C.

#### Conclusion

- Heterotopic pregnancy is an extremely rare finding; even in those patients with risk factors.
- While the presence of risk factors can help diagnose heterotopic pregnancy, it should always be considered in all pregnant patients with abdominal pain.
- An IUP does not exclude an ectopic pregnancy!
- Learning Point: In spite of recent removal of an ectopic pregnancy, the physician should always question if the patient has a concurrent, viable IUP.
- CT imaging was completed in this case assuming the patient only had an ectopic which was removed. She also failed to mention her viable IUP; which subsequently was aborted. While it is uncertain if the imaging was the cause of the abortion, it posed a small, but real, risk to the fetus.

