Pregnancy of Unknown Location (PUL)

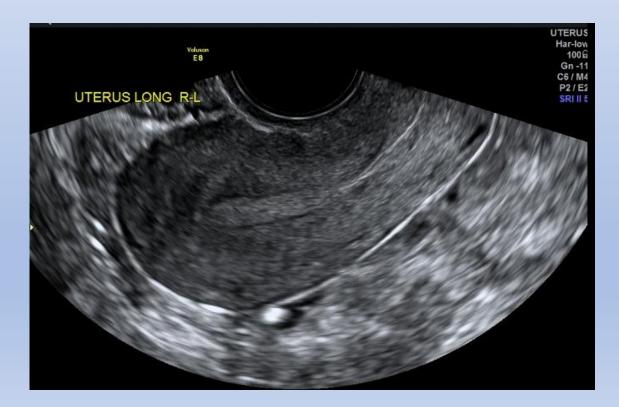
For the reluctant obstetrician...





Case

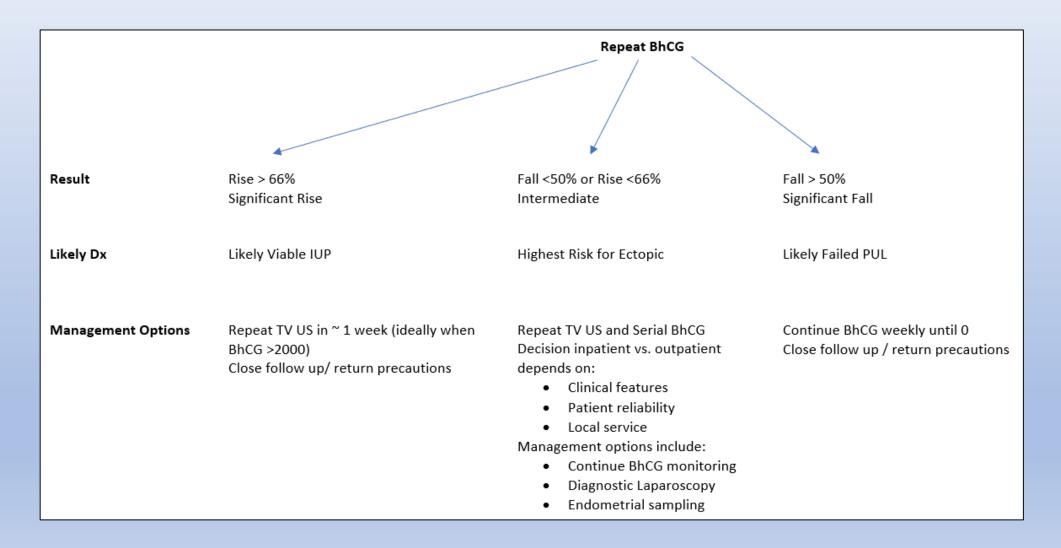
- 21 F
- G1P0
- Presents with PV bleeding, some minor cramping
- Observations normal
- Abdominal exam unremarkable
- Bloods:
 - Hb 129 O Pos
 - BhCG 900
- Pelvic US:
 - No IUP
 - No adnexal masses
 - No free fluid



Pregnancy of Unknown Location (PUL)

- PUL = positive pregnancy test + TV ultrasound unable to locate pregnancy
- 4 outcomes of PUL:
 - 1. Normal IUP (currently too early)
 - 2. Ectopic Pregnancy
 - 3. Failing PUL
 - 4. Persistent PUL
- PUL is typically followed up with:
 - Serial BhCG
 - Serial TVS
 - Close follow up / return precautions
- ~90% can be managed expectantly, ~10% require intervention

Management of PUL



Serial BhCG - Caveats

• A viable IUP

- Typically rises over 48hrs >66% ("doubling time")
 - Based on 20 women, confidence intervals 85%
- Higher quality data suggests:
 - 53% rise as lower limit with 99% confidence interval, study of 287 patients presenting to the ED with abdominal pain / bleeding
 - 35% rise lower limit with 99.9% confidence interval, study of 1249 patients with abdominal pain/bleeding with PUL
 - Woman with IUP 35% rise had a live birth

• A non-viable PUL

- Typically falls over 48hrs > 50%
- Retrospective study (189 symptomatic patients) followed by prospective validation (200 symptomatic patients) found
 - Falling BhCG >13% likely non-viable PUL
 - Sn 93%, Sp 97%
- Ectopic Pregnancy
 - Some fall, some rise on serial measurements (evenly split)
 - Typically falls <50% and rises <66%
 - Literature suggests usually
 - Rises no more than 66%
 - Falls no more than 13%
 - Note: This combination with a BhCG level >1500 has Sn 92% and Sp 84% for ectopic

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