

First Trimester Ultrasound

CC: Vaginal Spotting, early pregnancy

Updated: 4/1/2012

Ultrasound pictures should be printed for the medical record. Include interpretation, approach (abdominal or transvaginal), and signature.

Diagnosis	Findings
Ectopic pregnancy	<ul style="list-style-type: none"> <input type="checkbox"/> No identifiable pregnancy on abdominal or vaginal scan <input type="checkbox"/> HCG > ~1500 <input type="checkbox"/> Increase sensitivity of diagnosis with unilateral pain, presence of adnexal mass <input type="checkbox"/> Consider ruptured ectopic pregnancy if presence of free fluid <input type="checkbox"/> Follow the patient in 48 hours with serial HCG
Blighted Ovum	<ul style="list-style-type: none"> <input type="checkbox"/> MSD >25mm (abdominally) with no fetal pole <input type="checkbox"/> MSD >20mm (abdominally) with no yolk sac <input type="checkbox"/> MSD >16mm (vaginally) with no fetal pole <input type="checkbox"/> MSD > 8mm (vaginally) with no yolk sac <input type="checkbox"/> Counsel patient re: findings and options: expectant management, cytotec medical abortion, D&C <input type="checkbox"/> Follow up in one week in clinic to confirm findings (sono prior or do sono in clinic)
Missed Abortion	<ul style="list-style-type: none"> <input type="checkbox"/> Visible fetal pole > 9mm (abdominally) with no flicker <input type="checkbox"/> Visible fetal pole > 5mm (vaginally) with no flicker <input type="checkbox"/> Call attending, counsel pt re: findings and options: expectant management, cytotec medical abortion, D&C
Threatened abortion with poor prognosis	<ul style="list-style-type: none"> <input type="checkbox"/> GA < 6.2 weeks with FHR <80 <input type="checkbox"/> GA > 6.2 weeks with FHR < 100 <input type="checkbox"/> Subchorionic hemorrhage visible <input type="checkbox"/> MSD – CRL < 5 <input type="checkbox"/> Counsel patient, follow up with serial sono in one week, bleeding precautions
Threatened abortion with good prognosis	<ul style="list-style-type: none"> <input type="checkbox"/> GA < 6.2 weeks with FHR > 100 <input type="checkbox"/> GA > 6.2 weeks with FHR > 120 <input type="checkbox"/> Rate of miscarriage with normal sono at > 49 days of gestation is <2.3% <input type="checkbox"/> Counsel patient, follow up with serial sono in one week, bleeding precautions

Differential Diagnosis:

Ectopic pregnancy, Threatened Abortion, Complete Abortion, Incomplete Abortion, Blighted Ovum.

Notes:

- 25-30% of pregnancies have some first trimester bleeding, less than half end in miscarriage
- Measure gestational sac in three orthogonal planes and divide by three to get mean sac diameter (MSD)
- Gestational age (days) is MSD (mm) + 30
- Yolk sac is measured from inner wall to inner wall and should never be more than 6 mm
- Crown Rump Length (CRL) is best measured in a mid-sagittal plane.
- Gestational age (days) = CRL (mm) + 42
- Fetal pole is routinely visualized on vaginal scan with MSD of >9mm, or by 40 days of gestation
- Fetal cardiac activity is routinely seen with MSD >13-18 mm (vaginally)

Given the possibility of measurement error, it is prudent to allow an additional 1 to 2 mm in gestational sac measurement before considering intervention or repeat the ultrasound in 1 week if the embryonic size is near this cutoff.

This document is intended for educational purposes only. It does not reflect standard of care, and is not to replace clinical judgment, or expertise. It also does not represent policy for Women's Health at ARMC or RCRM.
