

ECTOPIC PREGNANCY

5 Cases - 5 Types



Learning outcomes

- Predispositions
- Variable patient presentation
- Definitions of ectopic location
- How sonographers can help define ectopic location
- How Patient managements will vary
- Long term outcomes for the patient

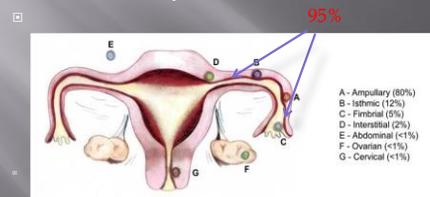
Patient Presentation and Risk Factors

- Pain can be varied
- Bleeding in early pregnancy
- #BHCG levels ⁽³⁾
- Hemodynamically unstable
- PID
- Previous surgical intervention
- Previous ectopic
- Endometriosis
- Obesity
- Advanced Maternal age
- Diabetic
- Infertility
- Assisted reproduction
- Smoking



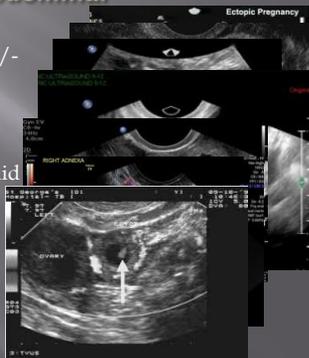
Basic definition

Ectopic pregnancy by definition refers to a pregnancy that is implanted outside the endometrial cavity ⁽³⁾



Sonographic Appearances - Tubal / Abdominal

- Gestational sac +/-
- CRL +/- FHB
- Blob sign
- Donut sign
- Complex Free fluid
- Focal tubal distension
- Ring of fire



Sonographic Appearances-other

- **Interstitial ectopic** - Eccentrically located sac surrounded by a myometrial mantle with <5mm mantle with peripheral hypervascularity. Bulging uterine contour. Interstitial line present
- **Ovarian**. Normal tube. Gestational sac or atypical hypoechoic lesion with a hyperechoic rim within ovary
- **Cervical ectopic**. Uterus is hour glass shaped. Gestational sac within the endocervical canal. Absent sliding sign
- **C scar Ectopic**. Gestational sac at the sight of previous C section with thin anterior myometrium. Absent sliding sign

Sonographic features that impact on management

Criteria for use of methotrexate

- Under 8wks gestation
- hCG < 5000
- Minimal free fluid
- Ectopic sac up to 5cm
- No fetal heart beat
- Interstitial/cervical/scar ectopic

Contraindications-

Heamoperitoneum

Case 1

- 43 yr old
- LMP 5wks 2 d BhCG 1700
- PV Bleeding



Fimbrial Tubal ectopic



Case 2

- 32 Yr old
- G2P0
- IVF pregnancy expected gestation 6 wks +5
- Bleeding and Pain BhCG 18288



Sliding Sign



Case 3

- 45 yr old
- G2P1 Unknown LMP - BhCG 9000
- PH C section
- Pain and heavy bleeding





Case 4

- 34 Yr old women G5 P4
- Pain and heavy Bleeding LMP (10wk+2)
- BHcG 20497
- Unlucky

Sonographic features of interstitial ectopic

TRANS-RIGHT CORNUAL REGION

Interstitial line
Myometrial mantle <5mm
Bulging uterine margin
Hypervascular periphery

Case 5

21 yr old G1P0
4 days of RIF pain
LMP 4W+3
PMHx PID
Bhcg 438

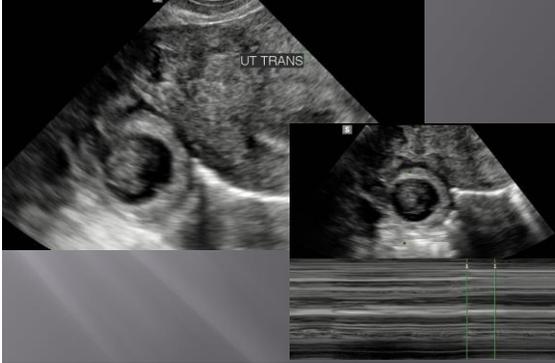
6 days later
...BhCG 13,500

UTERUS LONG

RIGHT OVARY

RIGHT ADNEXA TRANS

Question of management



Conclusion

The sonographers job is to carefully describe where the ectopic pregnancy is located and its inherent features, so that the appropriate management of a variable condition can be implemented .



References

- 1) Sonographic signs in ectopic pregnancy update; Bolaji et al Ultrasound 2012 20:192-210
- 2) Unusual ectopic Pregnancies; Ghaneie et al J Ultrasound Med 2015 34:951-962
- 3)