

Case presentation: Live cervical ectopic pregnancy

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Denise McGrath^{1, 2}

S.Briody²

Therese Herlihy¹

M.Moran¹

1. Radiography and Diagnostic Imaging
School of Medicine
University College Dublin,
Ireland

2. Regional Hospital Mullingar
Westmeath
Ireland

Ectopic pregnancy

Risk factors

- Advanced Maternal Age - Pelvic Inflammatory Disease
- Previous Ectopic Pregnancy - Hx: Pelvic Surgery
- IVF

TV Ultrasound – Gold Standard

- Early diagnosis with TVS decreases morbidity and mortality
- Decreases numbers of diagnostic laparoscopies and D&C
- Allows for consideration of conservative management options

Scanning Protocol

- Introductions
- Accurate history taking
- Privacy / explanation of exam /consent.
- Sterilized and covered probe as per protocol
- TAS followed by TVS

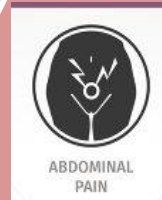
Clinical Presentation

THE 4 A'S



Amenorrhoea
+/- Abnormal
BhCG
(Early/High)

**Suspect
Ectopic
Pregnancy**



**Abdominal
Pain**



**Abnormal
Vaginal
Bleeding**

Always
remember :
Only half of
women will
present
with all 3
symptoms

Background

- 39 y/o presented to the Early Pregnancy Unit (GP referral) with history of PV Spotting X 4days and no Pain
- ICSI Berlin, Germany –
Egg retrieval 20/08/2018
Transfer date 25/08/2018 2 X Day5 blastocysts
EDD :05/03/2019
- Meds: Progesterone 200mg TDS PV
- Obstetric Hx: Para 1+0 , Infertility (Hx: Endometriosis and PCOS)
- Surgical Hx: LSCS , Laparoscopy to remove endometrial nodule in LSCS scar (07/2017)

Bloods : BhCG and Progesterone

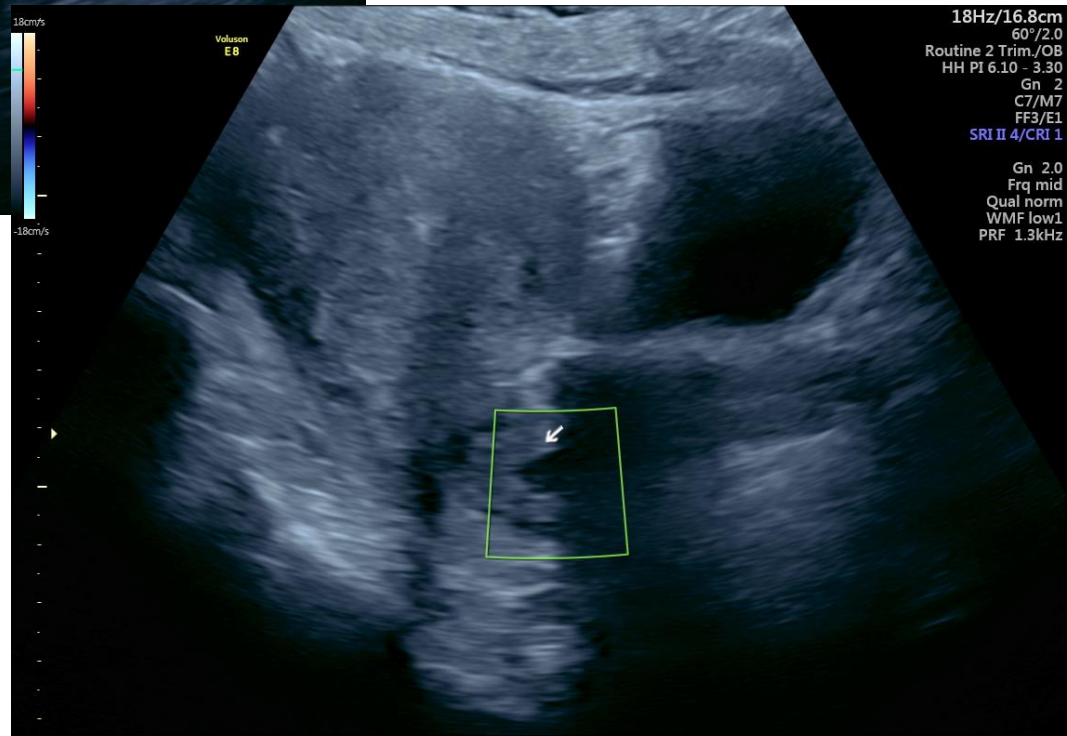
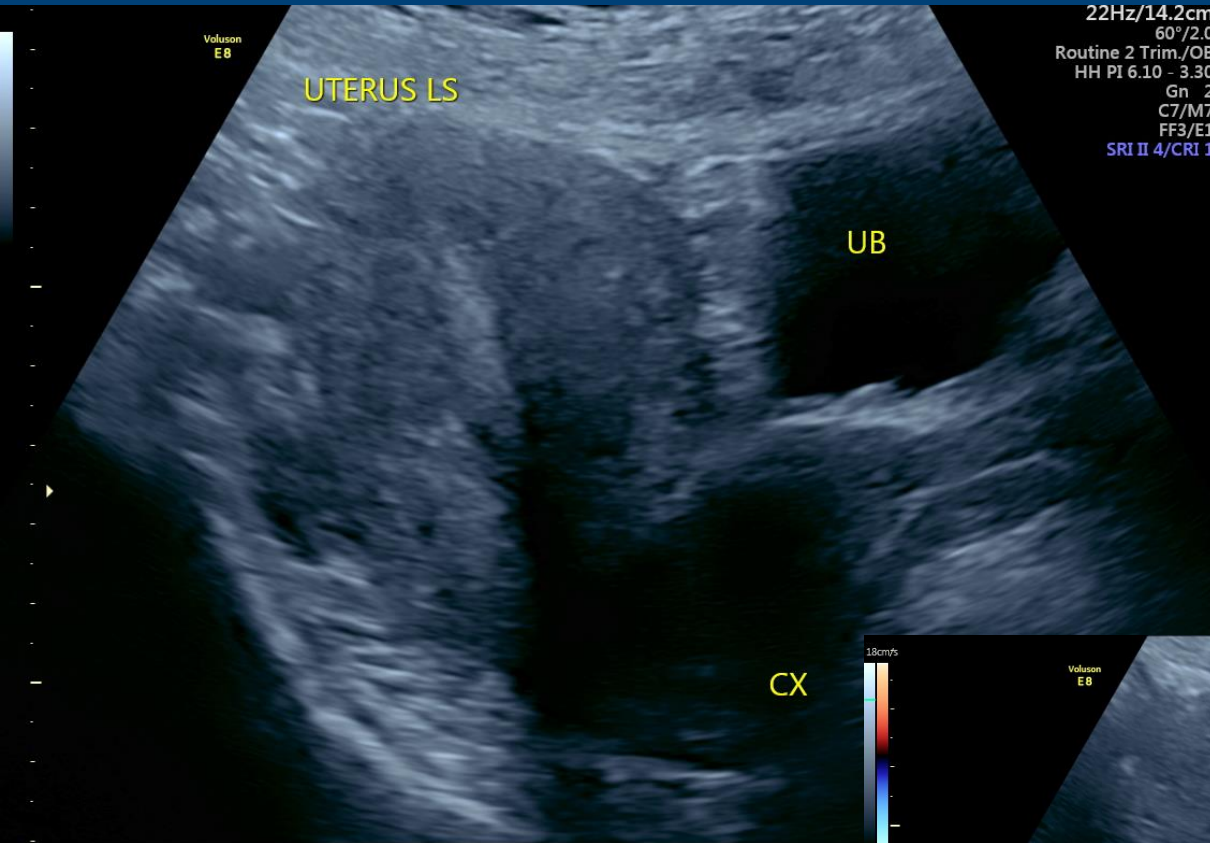
Gestation	Taken	BhCG IU/L	BhCG change per/hr	Progesterone Mmol/L
4+2	GP	54 IU/L	-----	13.56
5+4	EPU (Bloods only)	854 IU/L	6.9%	<u>7.98</u> ↓
6+0	EPU (+USS)	1708 IU/L	10.6%	22.2
6+4	EPU (Bloods)	3676 IU/L	14.8%	30.0
7+2	EPU (+USS)	3724 IU/L	13.5%	14.69

TAS/TVS at 6+0

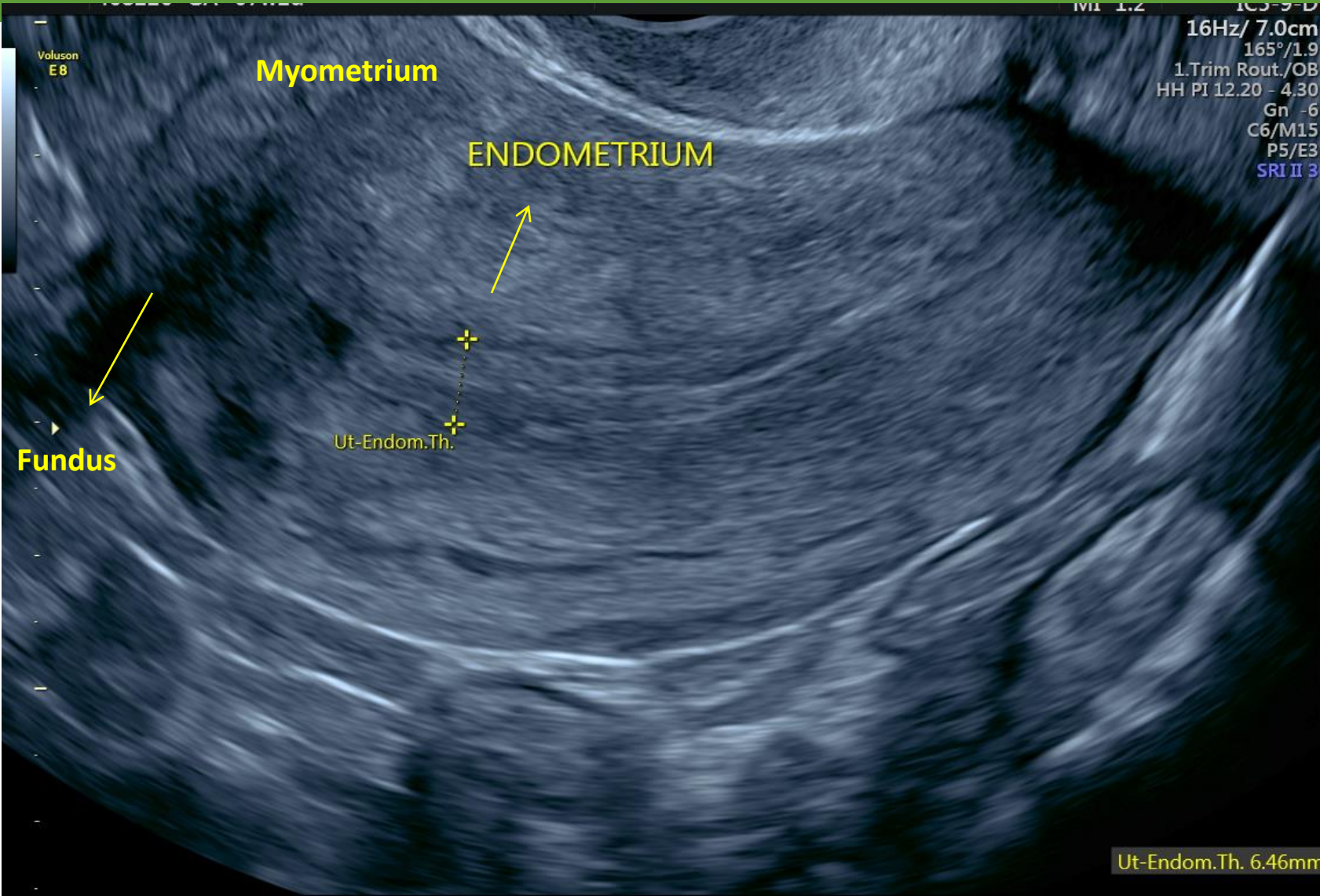
Endometrium measuring 9mm no gestational scan, yoke sac or fetal pole seen , ovaries and adnexa appear normal . No free fluid on scan. Pregnancy of unknown location.

Reccomendations : Please correlate with BhCG bloods

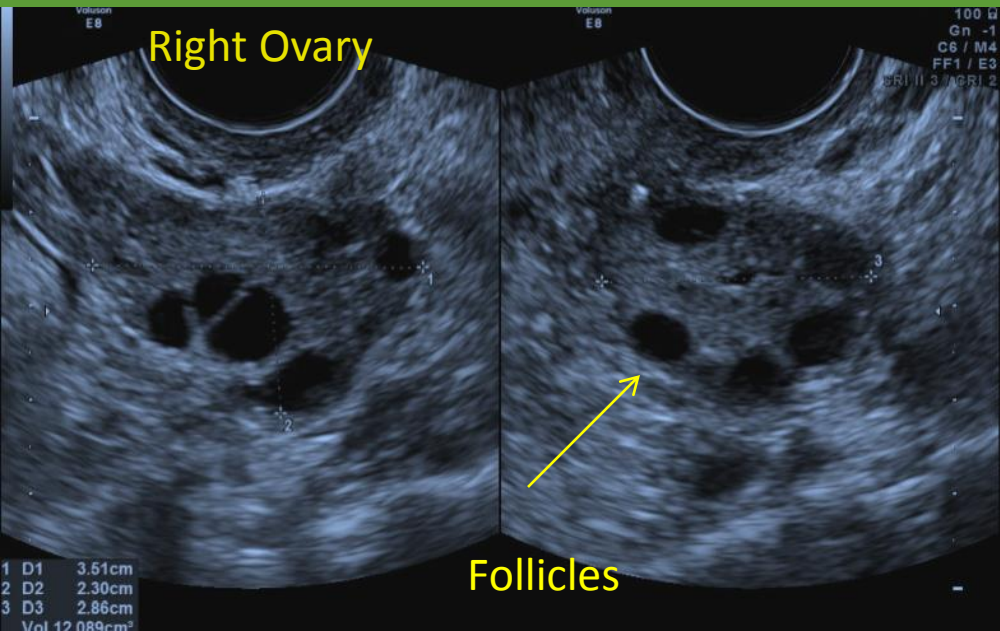
TAS



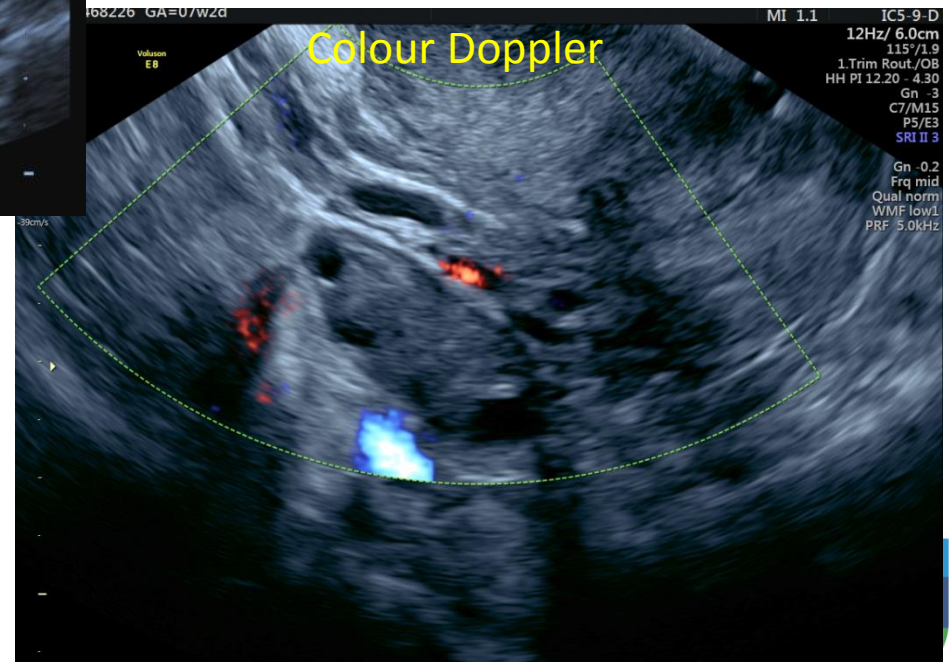
Endometrium



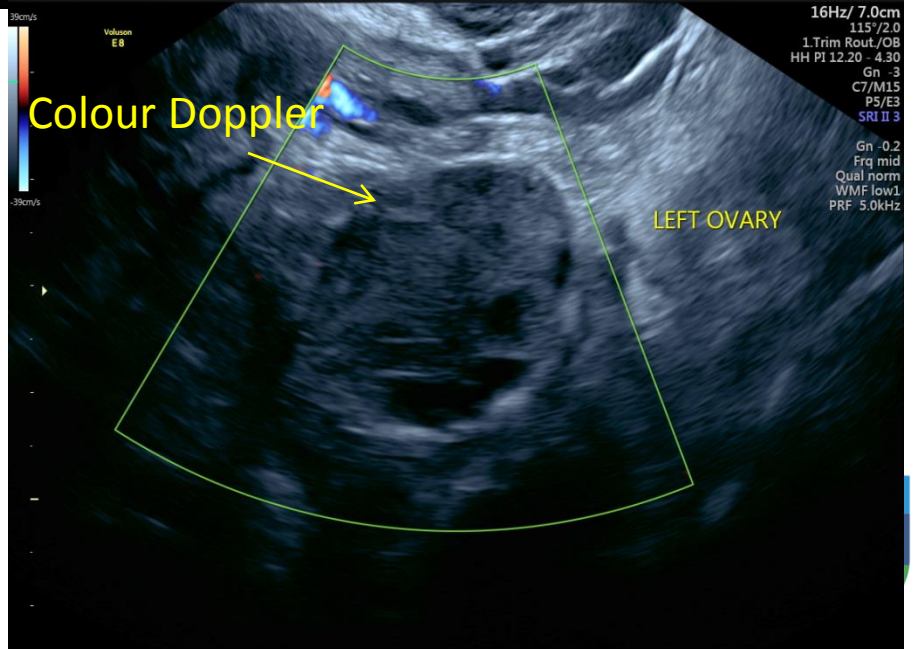
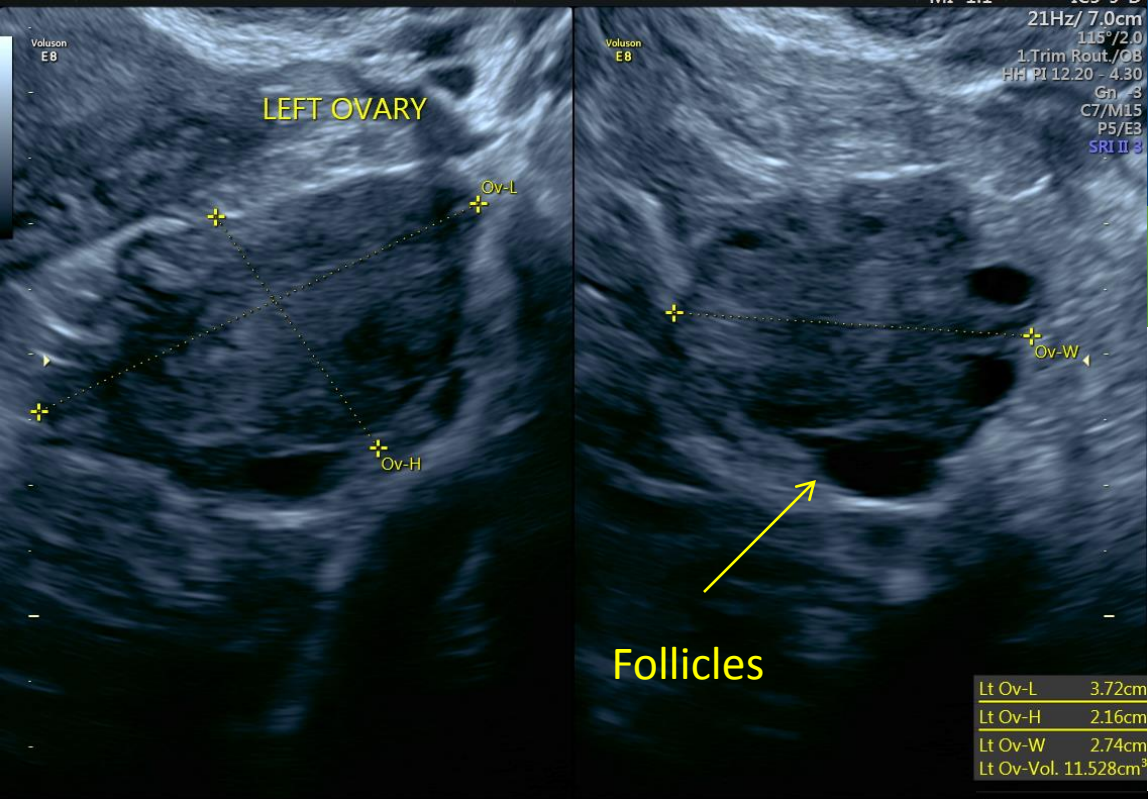
Right Ovary



Right Adenexa



Left Adnexa



LSCS Scar

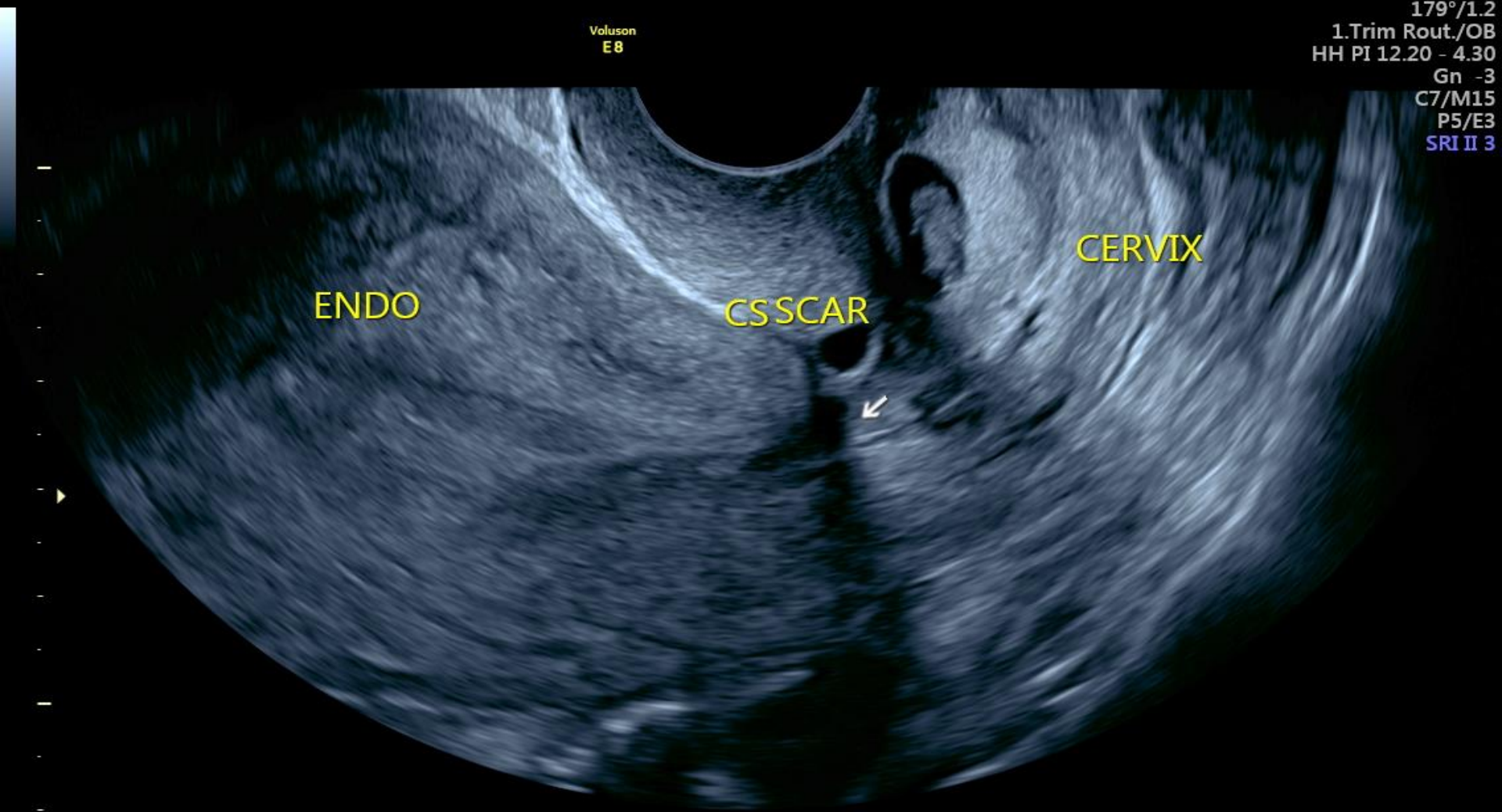
Voluson
E8

IVII 1.2
103-9-D
15Hz/ 6.0cm
179°/1.2
1.Trim Rout./OB
HH PI 12.20 - 4.30
Gn -3
C7/M15
P5/E3
SRI II 3

ENDO

CS SCAR

CERVIX

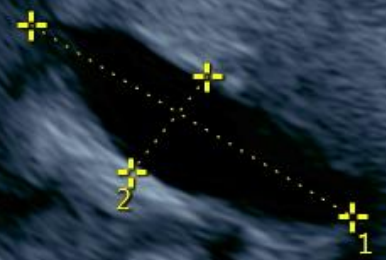


IVI 1.1 IC3-9-D
18Hz/ 4.0cm
140°/1.3
1.Trim Rout./OB
HH PI 12.20 - 4.30
Gn -3
C7/M15
P5/E3
SRI II 3

Voluson
E8

LSCS SCAR

CX



1 D 1.64cm
2 D 0.53cm

Voluson
E8

ECTOPIC

LSCS SCAR

UTERUS

CX

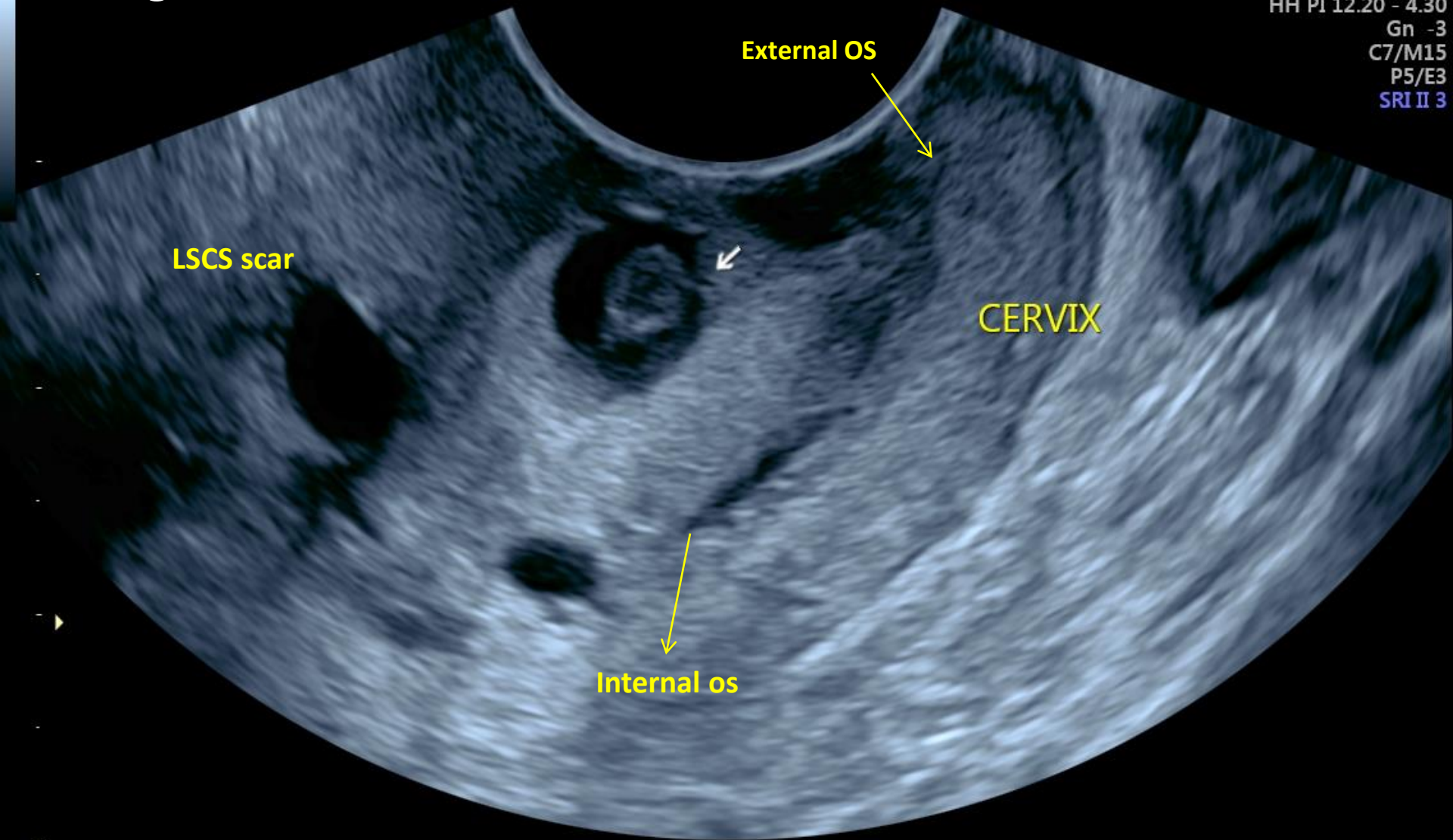


1 D 1.64cm
2 D 1.22cm

Sagittal Cervix

Voluson
E8

18Hz/ 3.0cm
140°/1.3
1.Trim Rout./OB
HH PI 12.20 - 4.30
Gn -3
C7/M15
P5/E3
SRI II 3



External OS

LSCS scar

CERVIX

Internal os

Coronal Cervix

CX TS

Colour Doppler

FH Pos

MMode

137 bpm



MI 1.0 IC5-9-D
23Hz/ 5.0cm
179°/1.4
1.Trim Rout./OB
HH PI 12.20 - 4.30
Gn -3
C7/M15
P5/E3
SRI II 3
Gn -0.2
Frq mid
Qual norm
WMF low1
PRF 3.2kHz



39cm/s
-39cm/s

Voluson
E8

17Hz/ 6.0cm
150°/1.5
1.Trim Rout./OB
HH PI 12.20 - 4.30
Gn -3
C7/M15
P5/E3
SRI II 3
Gn -0.2
Frq mid
Qual norm
WMF low1
PRF 5.0kHz

LSCS SCAR

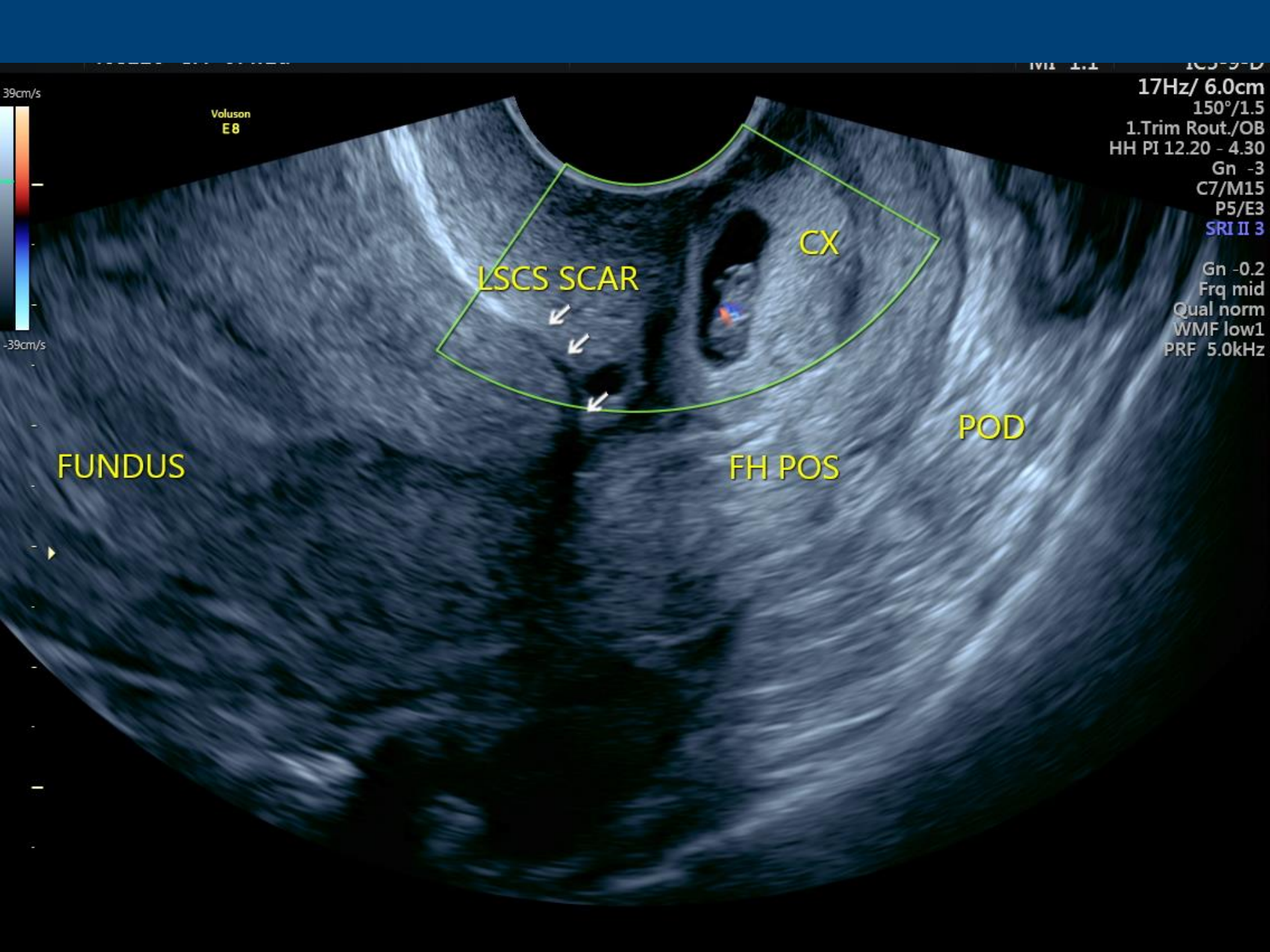


CX

POD

FUNDUS

FH POS



Cervical ectopic



ULTRASOUND TIPS²

- 1) An empty uterus with the so-called “hourglass uterus”
- 2) Gestational sac within the cervix with an echogenic “bagel sign”
- 3) An absent “sliding sign” i.e the intra-cervical sac fails to slide along the cervical canal when the vaginal transducer is used to apply gentle pressure to the cervix and colour Doppler flow detects vascular supply to the ectopic mass

Report and Discussion

- The transvaginal ultrasound showed an empty uterus at **7weeks and 2 days** gestation. The endometrium measures 6.4mm
- A ballooned out anterior cervical canal is noted containing a 10mm gestational sac, yoke sac and embryo (bagel sign noted)
- The CRL measurement is 7.7mm

Cardiac activity (FHR of 132bpm) was seen within the embryo and further demonstrated on M-mode and colour Doppler.

- There was no free fluid seen in the pelvis at the time of the scan
- The right and left ovaries (volumes 10 and 12 cm³) appear normal in size and echo texture

Impression - The ultrasound findings suggestive of a live cervical ectopic pregnancy

Surgical Management

- Hysteroscopic resection of cervical ectopic pregnancy
- Loop resection of the cervix performed to remove the ectopic
- 2 x Nabothian cysts removed

- Attended EPU 7 days post procedure
BhCG: ↓23 Progesterone ↓0.1

USS : Endometrium thickness of 7mm , no free fluid in the pelvis, no gestational sac or retained products of the ectopic pregnancy seen in the cervix

References

- Jurkovic et al. (2011). Diagnosis and management of ectopic pregnancy. British Medical Journal; 11:342:d3397.
- Levine D (2008). Ectopic Pregnancy. In: IN CALLEN, P. W. (Ed.) Ultrasonography in Obstetrics and Gynecology. 5th ed. Philadelphia, Saunders, Elsevier Inc.
- Madhra & Horne (2014). Ectopic pregnancy. Obstetrics, Gynaecology and Reproductive Medicine; 24(7): 215-220
- Monteagudo A, Minior V, Stephenson C, et al (2005): Non-surgical management of live ectopic pregnancy with ultrasound -guided local injection: a case series. Ultrasound Obstetrics and Gynecology; 25: 282-285
- RCOG Green top Guideline No 21