

GYNAECOLOGY ULTRASOUND IMAGING & MANAGEMENT

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Back to basics:

**Normal appearances
and common pitfalls**

Gynaecological US examinations - observations

The sonographer should demonstrate:

- *normal anatomy/variants* including age and menstrual status related appearances of the whole organ in at least two planes.

This should include assessment of:

- size, outline, echotexture and echogenicity.
- *pathological findings.*

The anatomical structures which the sonographer should be able to examine correctly are :

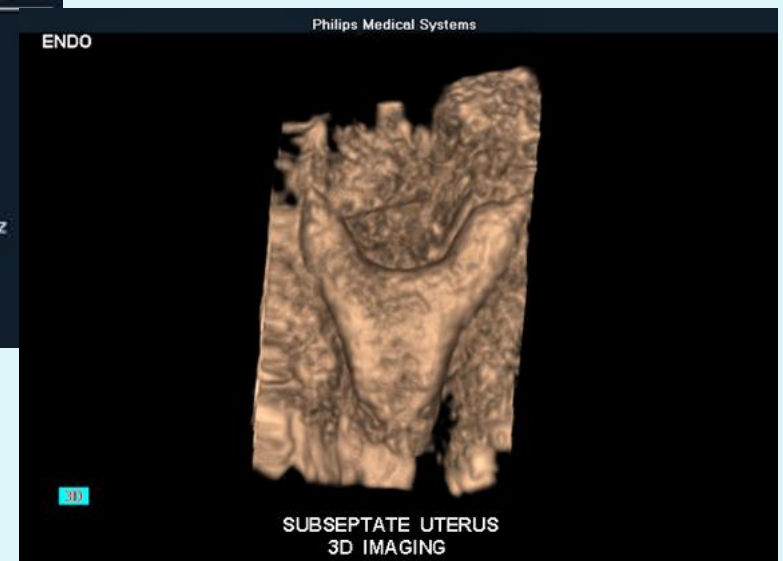
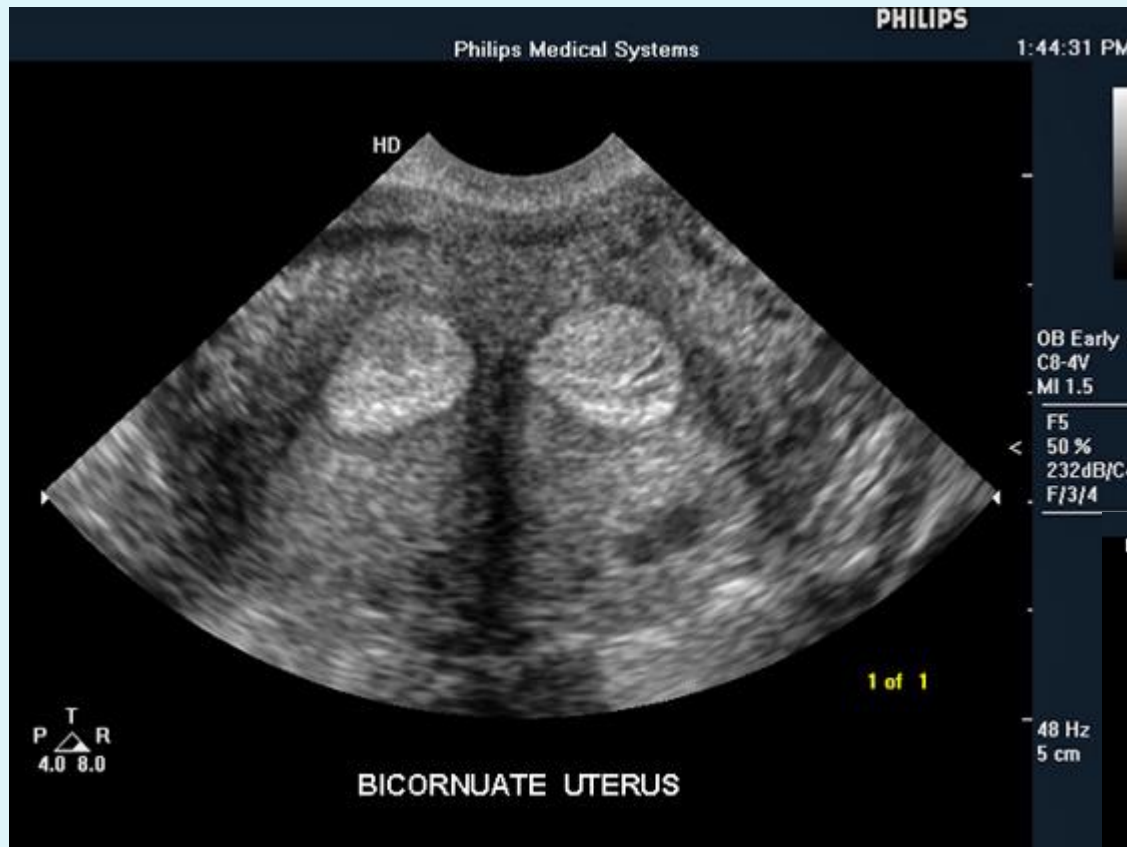
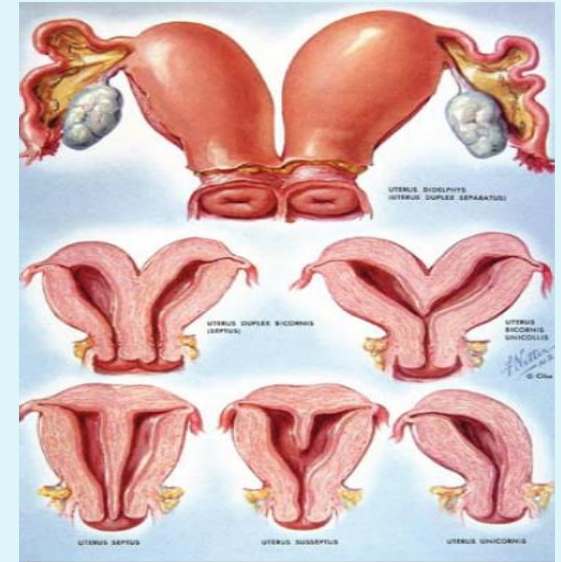
- ***uterus:*** position, size, shape and ultrasound characteristics of endometrium and myometrium
- ***ovaries:*** position, size, shape and ultrasound characteristics. Number, size and internal echo pattern of follicles where present
- ***cervix***
- ***fallopian tubes*** where visible
- ***broad ligaments***
- ***pelvic muscles***
- ***pelvic blood vessels.***

Clinical history

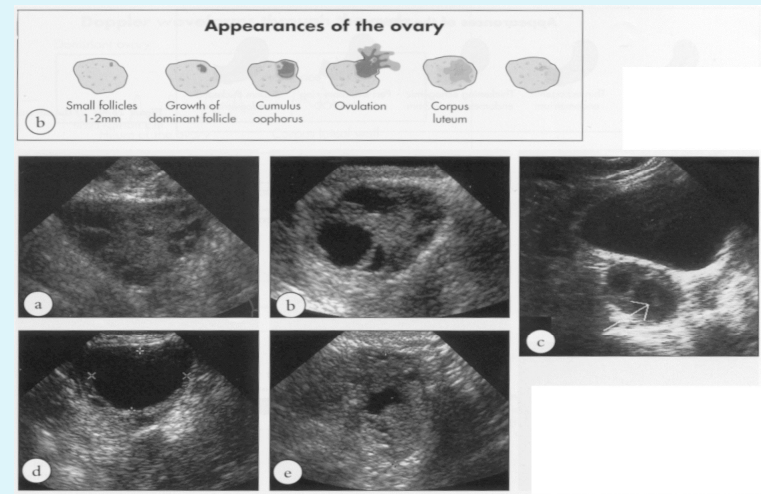
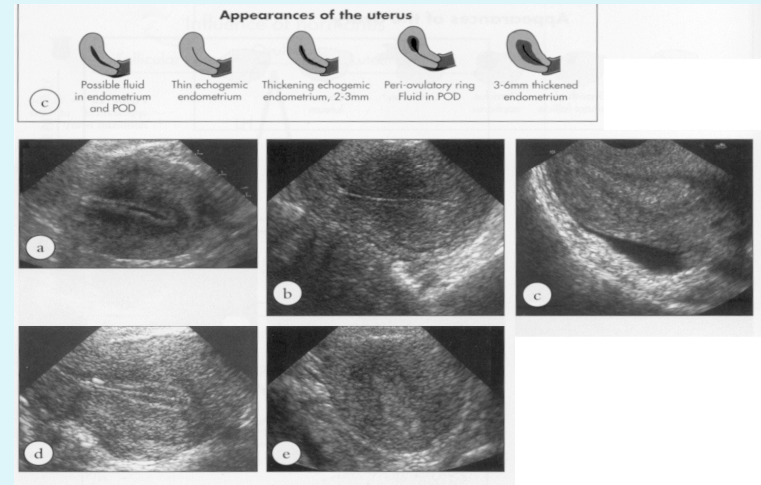
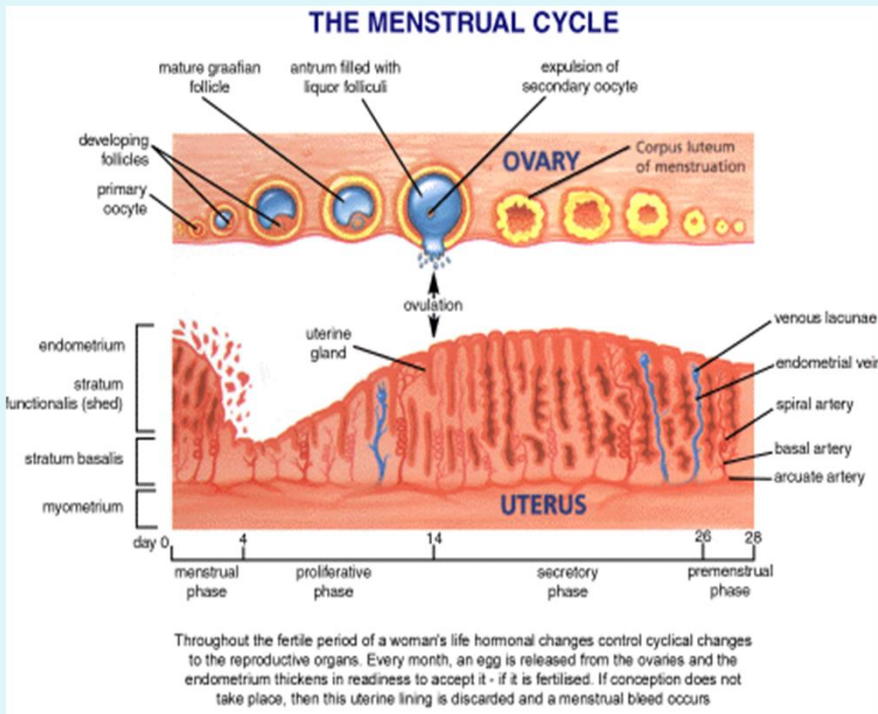
- Reason for referral, age
- Menstrual history
 - LMP
 - Cycle history . length, regularity, duration, menopause
- Symptoms
 - Pain, type, duration, ? related to cycle
 - Bleeding, ? heavy, IMB, PMB, amenorrhoea
 - Relevant medication
 - Previous gynaecological surgery / treatment



normal anatomy/variants



menstrual status related appearances





assessment of size

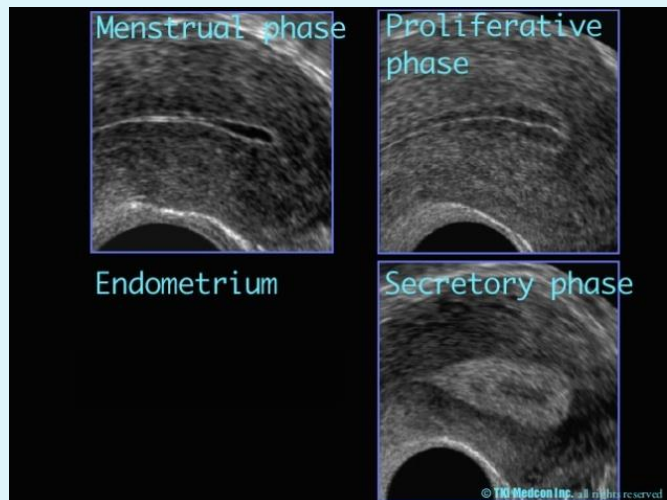
Uterine Size

	Length (cm)	Width (cm)	Antero- posterior (cm)	Volume (ml)	Cervix Corpus Ratio
Adult (nulliparous)	6-8	3-5	3-5	30-40	1:2
Adult (parous)	8-10	5-6	5-6	60-80	1:2
Postmenopausal	3-5	2-3	2-3	14-17	1:1

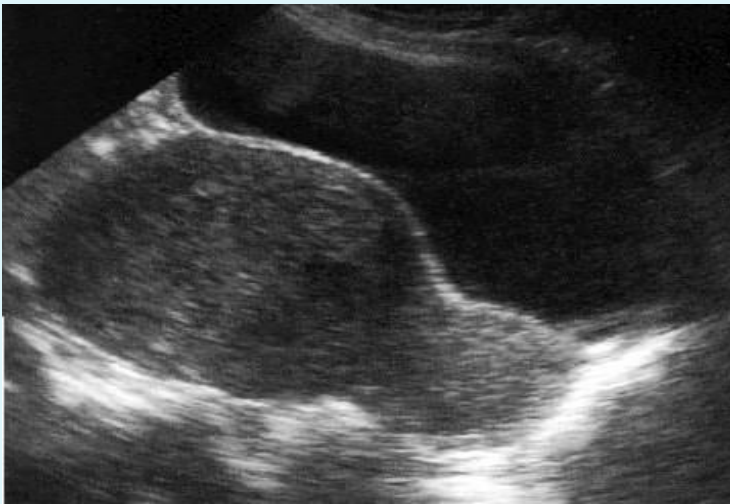
(From Warwick,⁴⁷ with permission.)

UTERUS—OVARIES

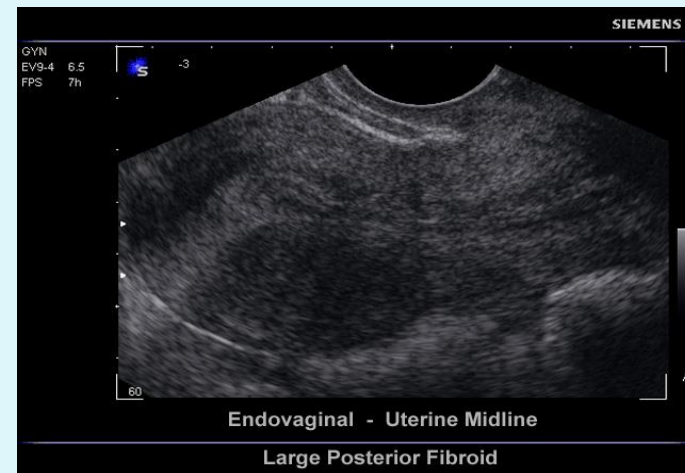
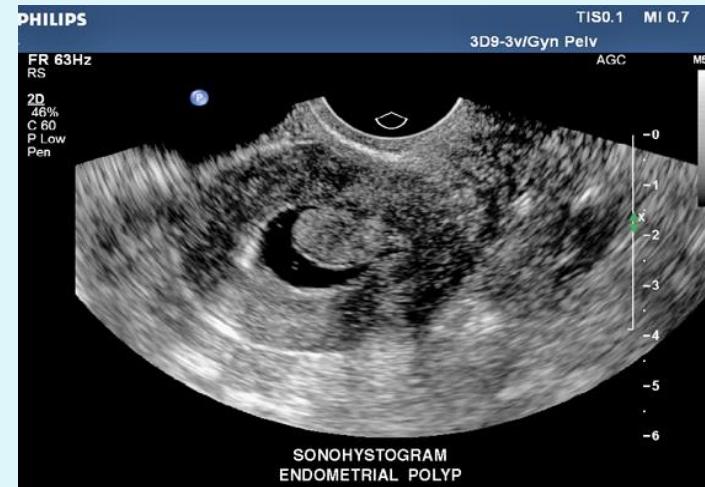
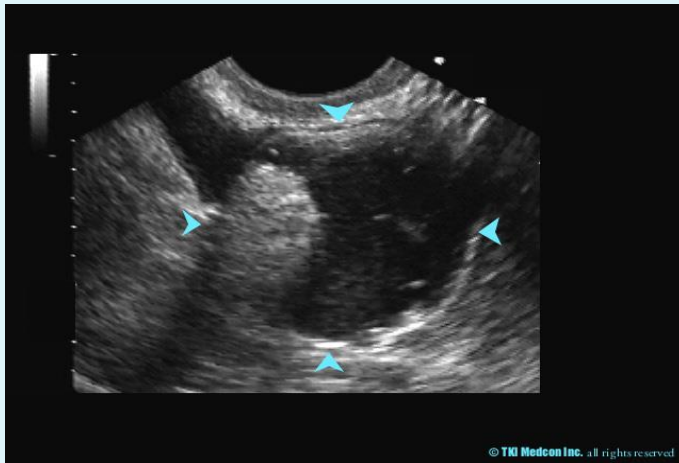
Measure Borders "Outer to Outer"	Prepubertal Size (1-12 Years)			Reproductive Years			Postmenopausal Size		
	Length	Thickness	Width	Length	Thickness	Width	Length	Thickness	Width
Uterus 	2.8 cm	0.8 cm	1 cm	6 cm- 8 cm	1.5 cm- 3.0 cm	4 cm	3.5 cm- 6.5 cm	1.2 cm- 1.8 cm	
Ovaries 	1 cm	1 cm	1 cm	3 cm	1 cm	2 cm	1.5 cm-2 cm	0.5 cm	
Ovarian Volumes		0.46 cm ³			1.8 cm ³ -5.7 cm ³			2.5 cm ³ -3.7 cm ³	



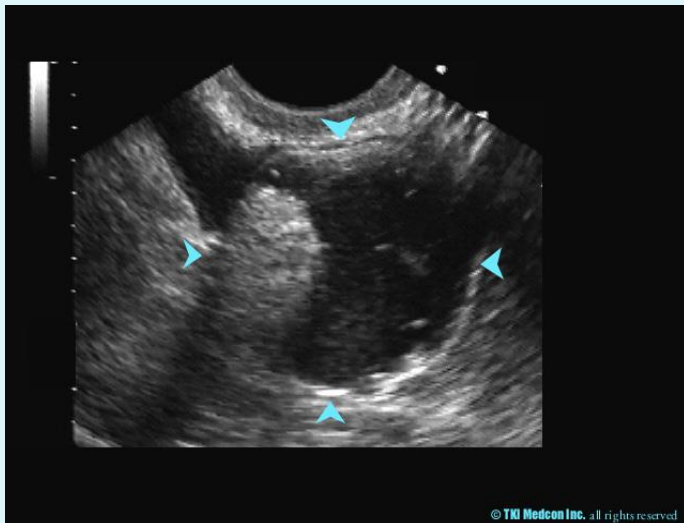
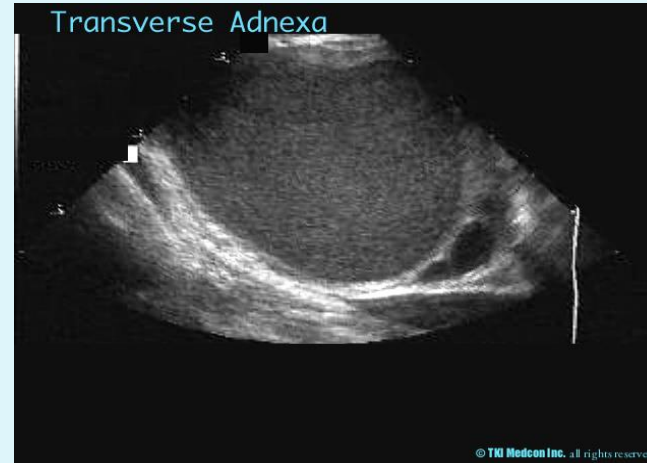
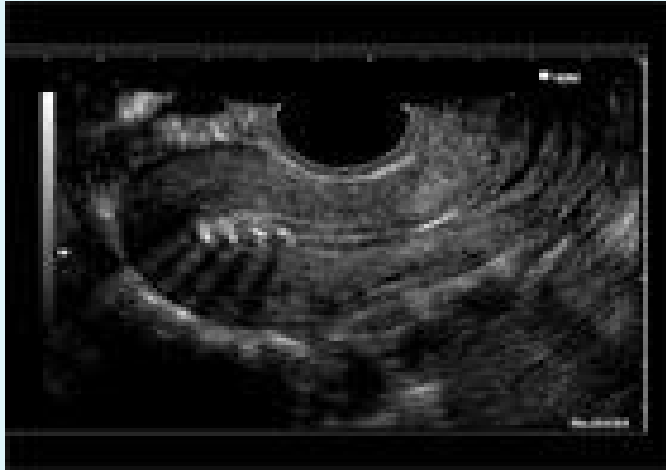
assessment of outline



assessment of echotexture



assessment of echogenicity



GYNAECOLOGICAL EXAMINATION WORKSHEET

Uterus: AV/RV

<i>longit.</i>	<i>trans.</i>	<i>AP</i>
<i>endometrial thickness (mm)</i>		

R Ovary:

<i>longit.</i>	<i>trans.</i>	<i>AP</i>
<i>vol.(mls)</i>		

L Ovary:

<i>longit.</i>	<i>trans.</i>	<i>AP</i>
<i>vol.(mls)</i>		

R Adnexa:

L Adnexa:

Free fluid: No/Yes

√ = normal U/S appearance & position

x = abnormal U/S appearance & position

Observation worksheet



GYNECOLOGICAL ULTRASOUND

- Pelvis Complete (Non-OB) Pelvis Limited (Non-OB)
 Transvaginal (Non-OB)

Tech _____

Hormone Replacement: Yes / No _____

LMP - ____ / ____ / ____

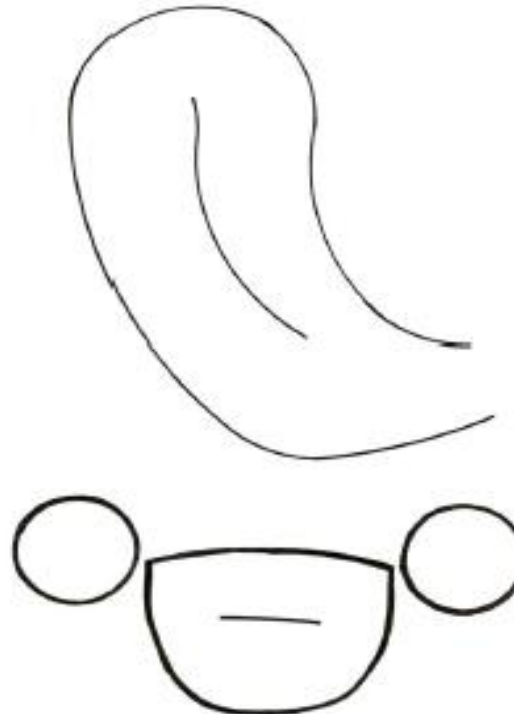
CLINICAL INFORMATION (HX, SURG., MEDS, ETC.) _____

PLACE PATIENT STICKER HERE

Uterus
 Normal Surg. Absent Non-Vis
 _____ cm _____ cm _____ cm
 AP TRANS LONG
Position:
 Normal Anteverted Retroverted Anteфлекed Retroflexed
 Endometrium: _____ mm Normal Fluid Present
 Cul-de-sac: Normal Fluid Present- Anterior / Posterior
Fibroid:
 _____ cm _____ cm _____ cm
 AP TRANS LONG

RT Ovary
 _____ cm _____ cm _____ cm
 AP TRANS LONG
 Normal Surg. Absent Non-Vis
 Mass: Cystic Solid Complex Single Multiple _____
 _____ cm _____ cm _____ cm
 AP TRANS LONG

LT Ovary
 _____ cm _____ cm _____ cm
 AP TRANS LONG
 Normal Surg. Absent Non-Vis
 Mass: Cystic Solid Complex Single Multiple _____
 _____ cm _____ cm _____ cm
 AP TRANS LONG



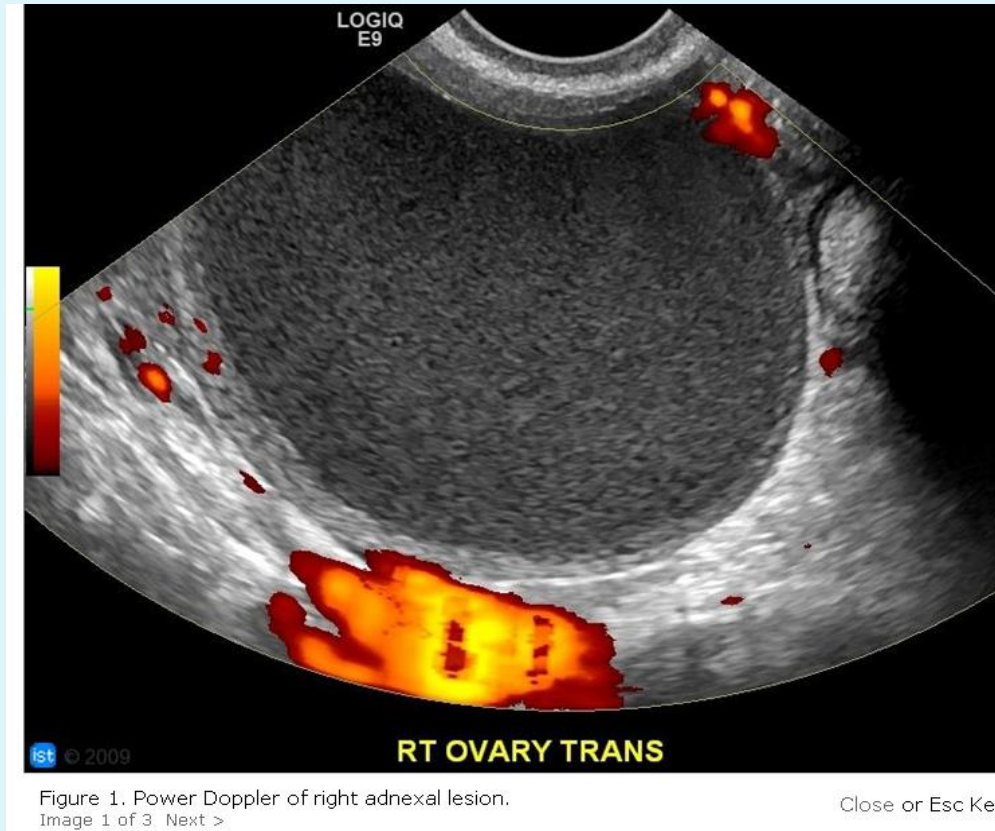
Uterus – observation summary

- Position
- Size
- Shape
- Endometrium
- Myometrium
- Ultrasound characteristics

Ovaries – observation summary

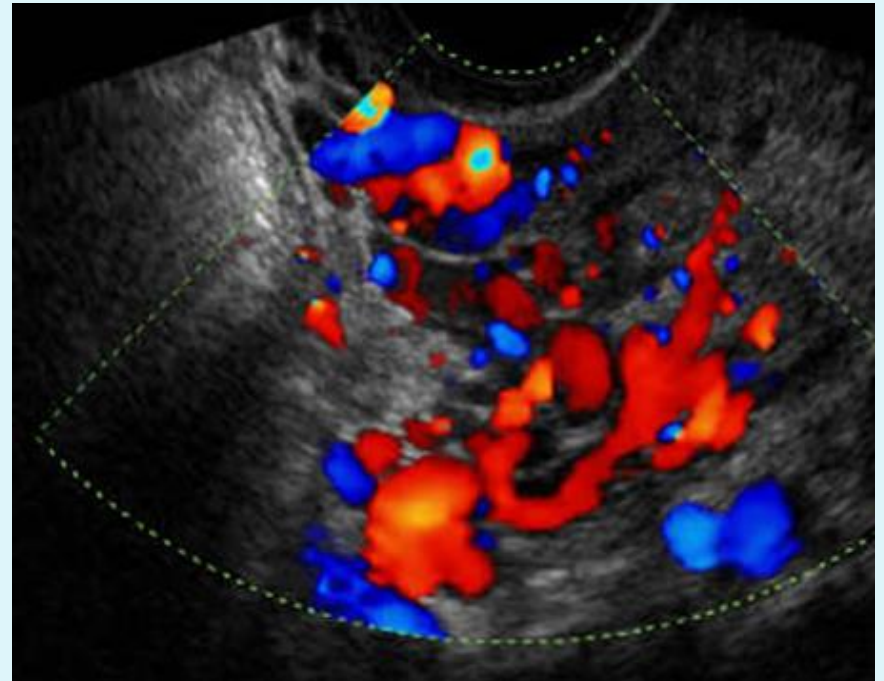
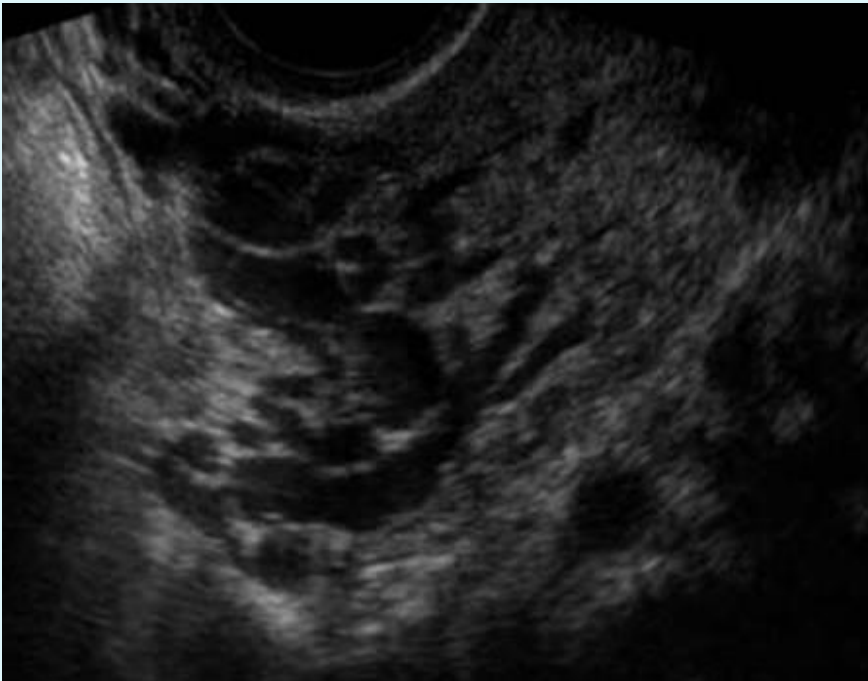
- Position
- Size
- Shape
- Ultrasound characteristics
- Follicle . number, size, echo pattern

Further observations



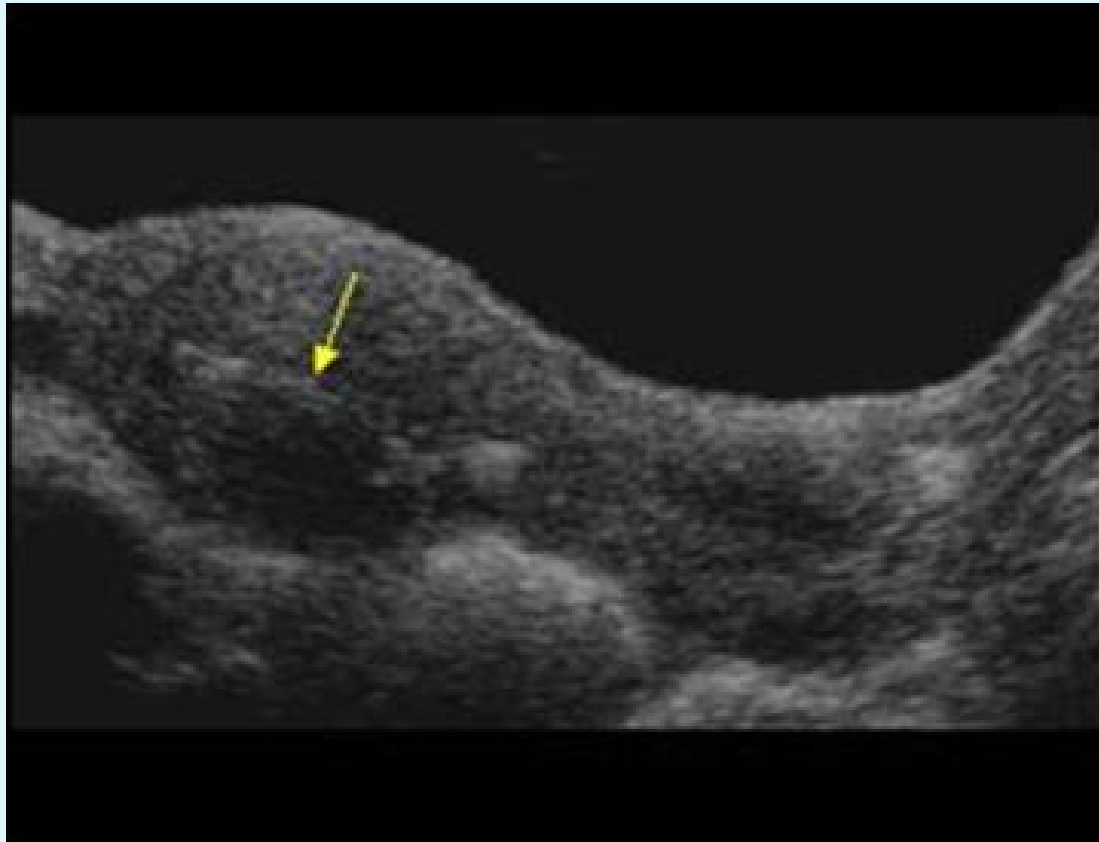
Power Doppler image of the right adnexa demonstrates a right adnexal cystic lesion with diffuse low level echoes , and **absent** internal vascularity.

Further observations

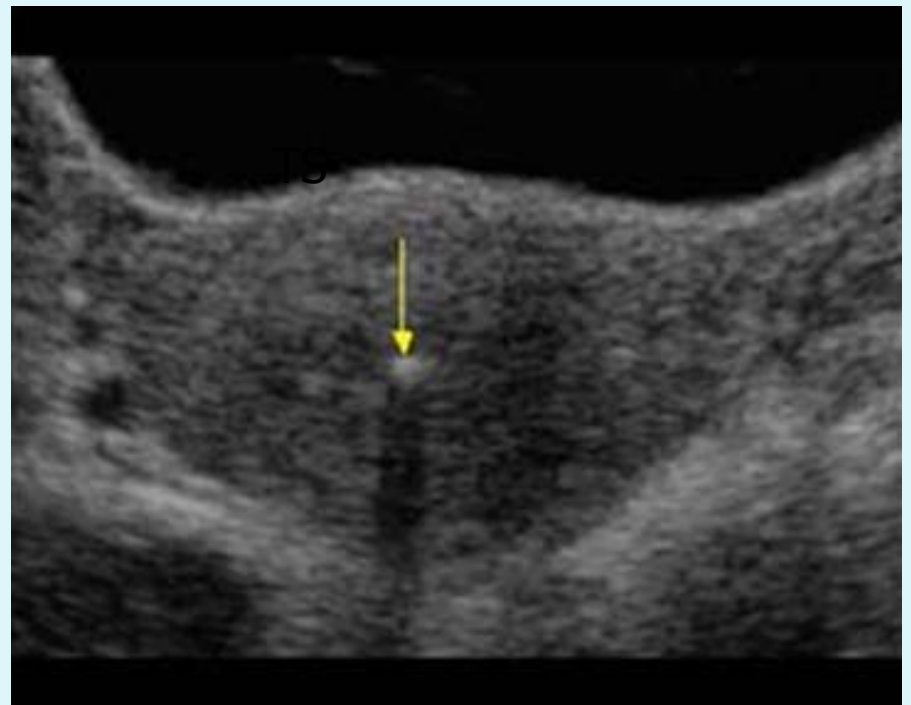
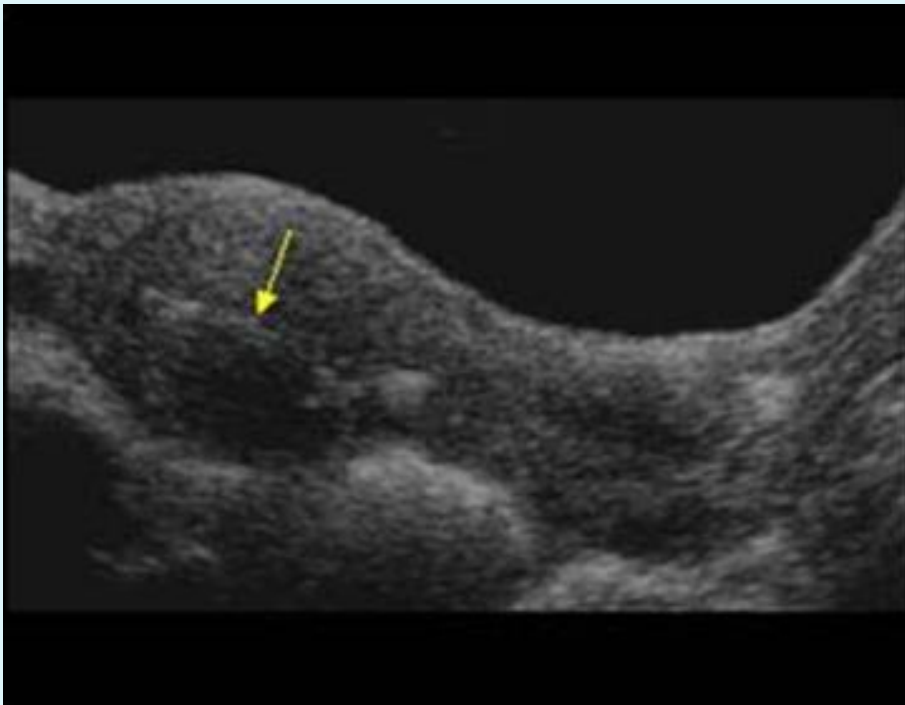


Prominent uterine veins

? IUCD (mirena)



Further observations



Further observations

