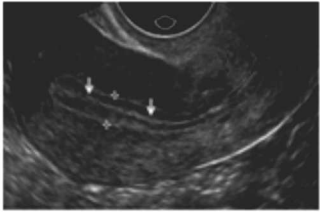
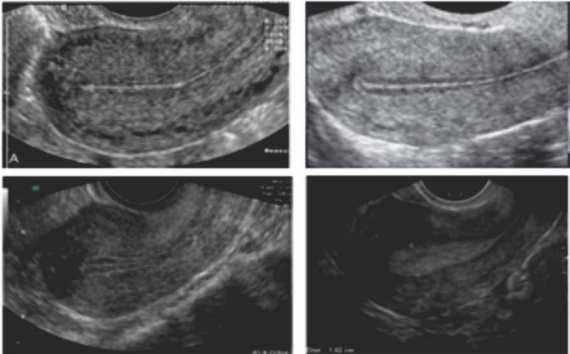
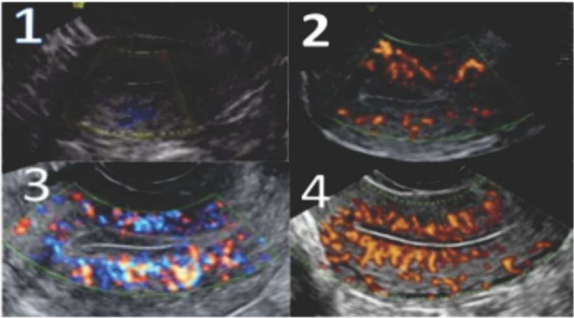
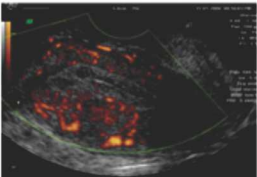


1. EVALUATION OF UTERUS

UBP - Uterine Biophysical Profile is for determining Qualities of uterus

- Applebaumdeviced a scoring system dependent upon 7 factors known as :

Applebaum’s uterine scoring system for reproduction (USSR)

PARAMETER	DETERMINATION	SCORE
Endometrial thickness (mm) 	< 7 7 – 9 10 – 14 > 14	0 2 3 1
Endometrial layering 	No layering Hazy 5-line Distinct 5-line	0 1 3
Endometrial motion(no. of myometrial contraction in 2 min)	< 3 > 3	0 3
Myometrial Echogenicity	Coarse, inhomogenous Relatively homogenous	1 2
Uterine artery doppler flow (PI)	2.99 – 3.0 2.49 < 2	0 1 2
Endometrial blood flow in zone 3 	Absent Present but sparse Present multifocally	0 2 5
Myometrial blood flow (gray scale) 	Absent Present	0 2

2. Keypoints in Doppler study in infertility

- ET in IVF is cancelled when uterine artery PI > 3.2
- Spiral artery RI-0.53 (ovulation group); RI-0.70 (LPD group)
- Follicular phase: perifollicular vessel RI- 0.54 ± 0.04

2 days prior to ovulation- declines to 0.44 ± 0.04 .

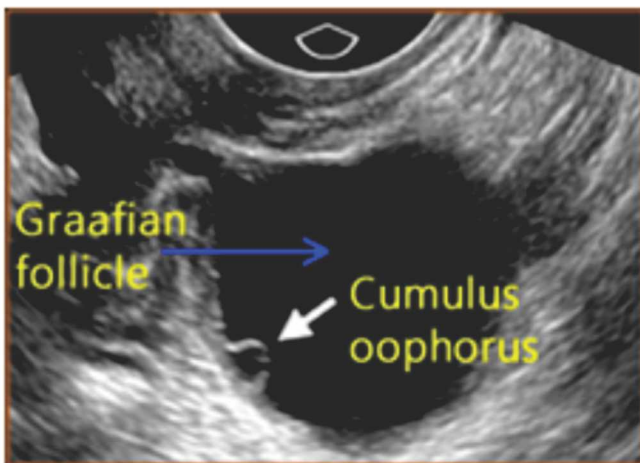
PSV > 10 cm/s predicts higher rates of fertilization

- OVARIAN Stromal PSV: 5-10 cm/sec

AFC $>>$ OV $>>$ ovarian stromal vascularity (sensitivity for prediction of response)

3. Mature follicle

- Size approx. 20 to 25 mm in CC induced cycle
- In HMG/FSH cycle 16 to 18 mm size is considered mature
- Double folding of follicle margins (rupture within 24 hrs)
- Cumulus oophorus (rupture within 24-36 hrs)
- Color doppler shows more than 75% circumference flow



4. USG markers of ovulation

- Disappearance of or sudden decrease in follicle size (the most frequent sign of ovulation with the sensitivity of 84 %)
- Appearance of ultrasonic echoes in the follicle
- Irregularity of follicle wall
- Free fluid in the pouch of Douglas (in 77 % of cases on the day of ovulation)
- Secretory changes of the endometrium

