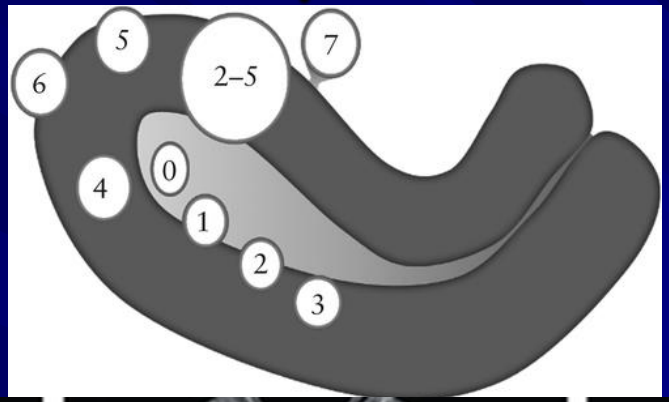
# Jinekolojik Patolojilerde Ultrasonografi

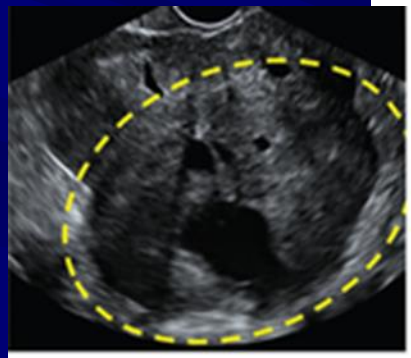
Dr. Nahit Özcan
Sonomed Görüntüleme Merkezi
TJOD aralık 2018

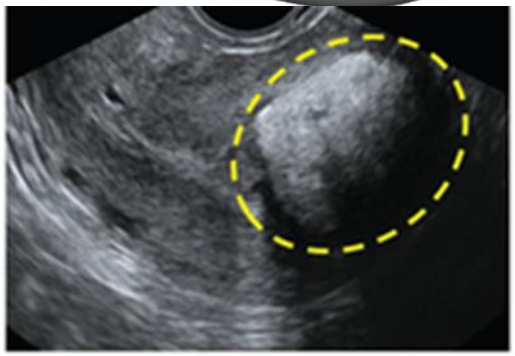
- Uterus
  - Myometrium
  - Endometrium
- Adneks
  - Over
  - Over dışı ( tuba, ligamentler, periton, GİS, retroperitoneal, vasküler )

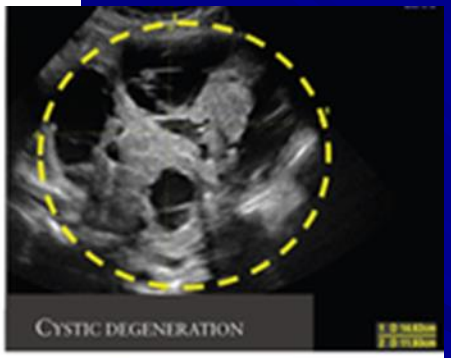
# Myom

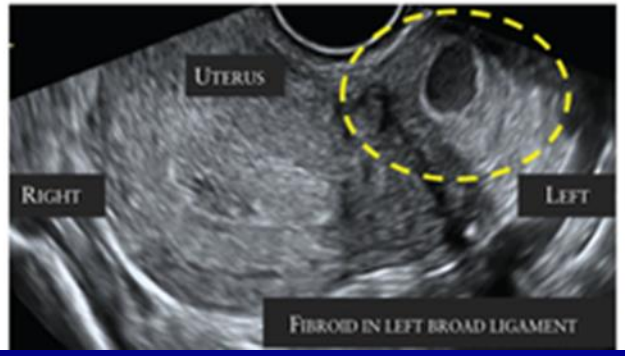
- Myom FİGO sınıflaması

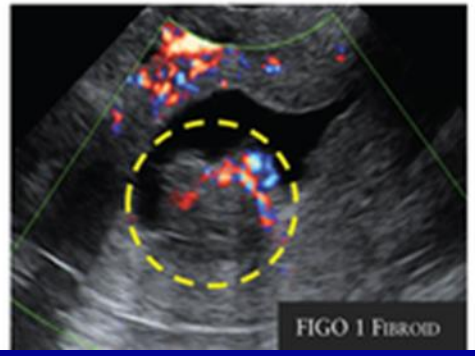


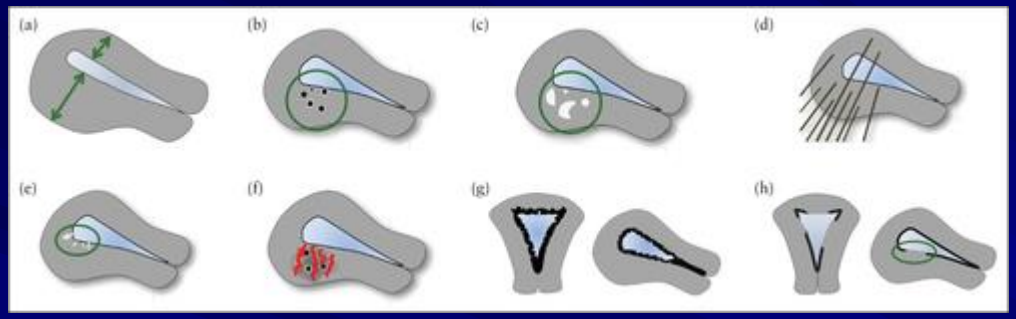


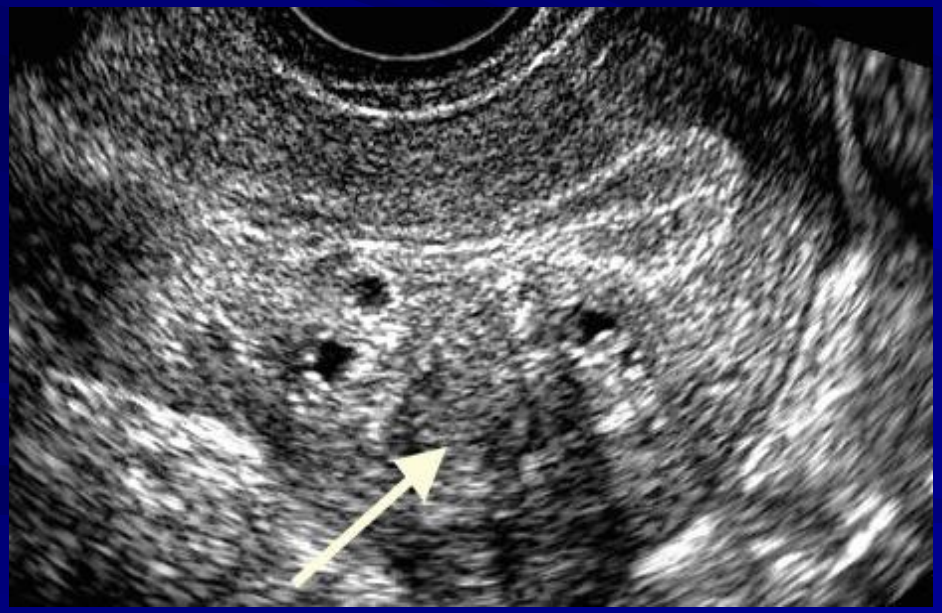


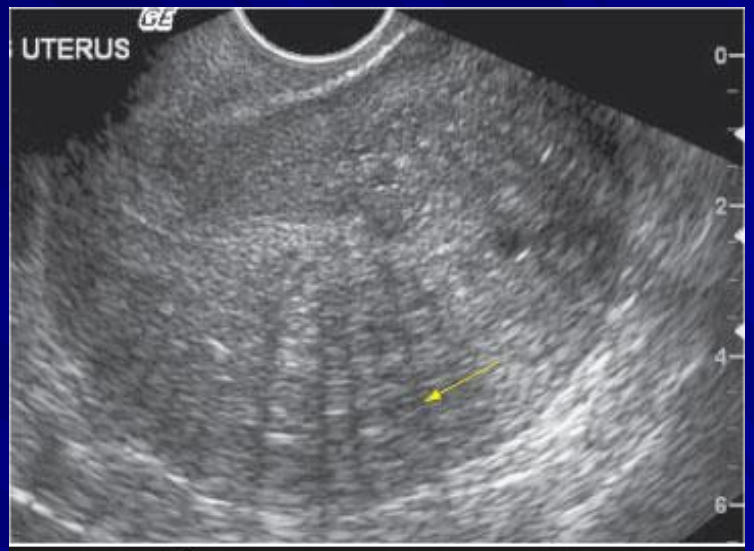



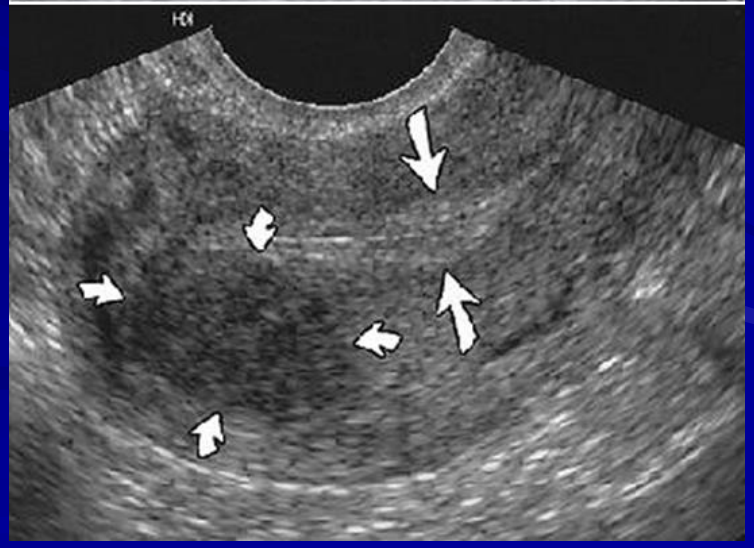



# Adenomyozis

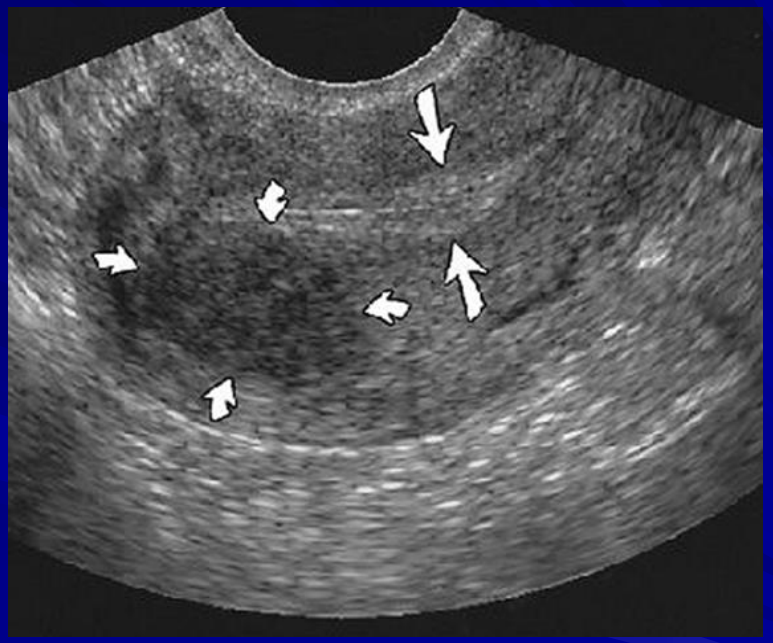




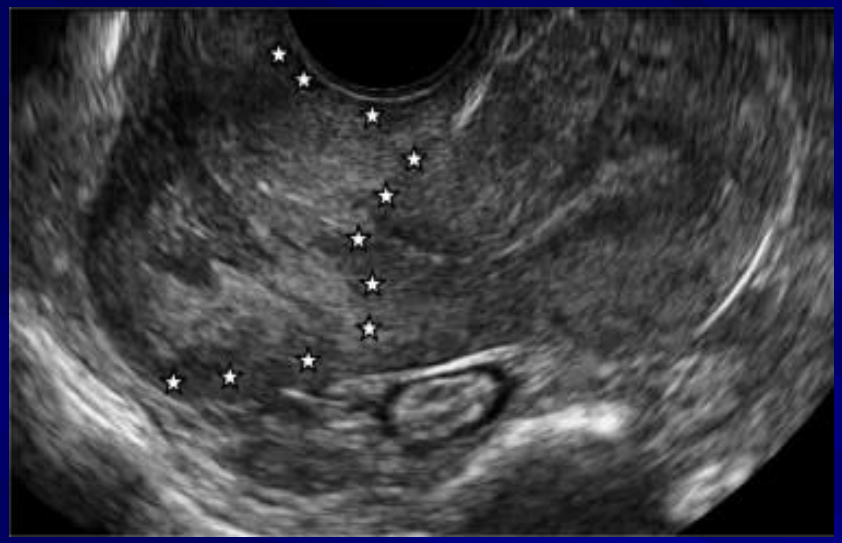



Myoma

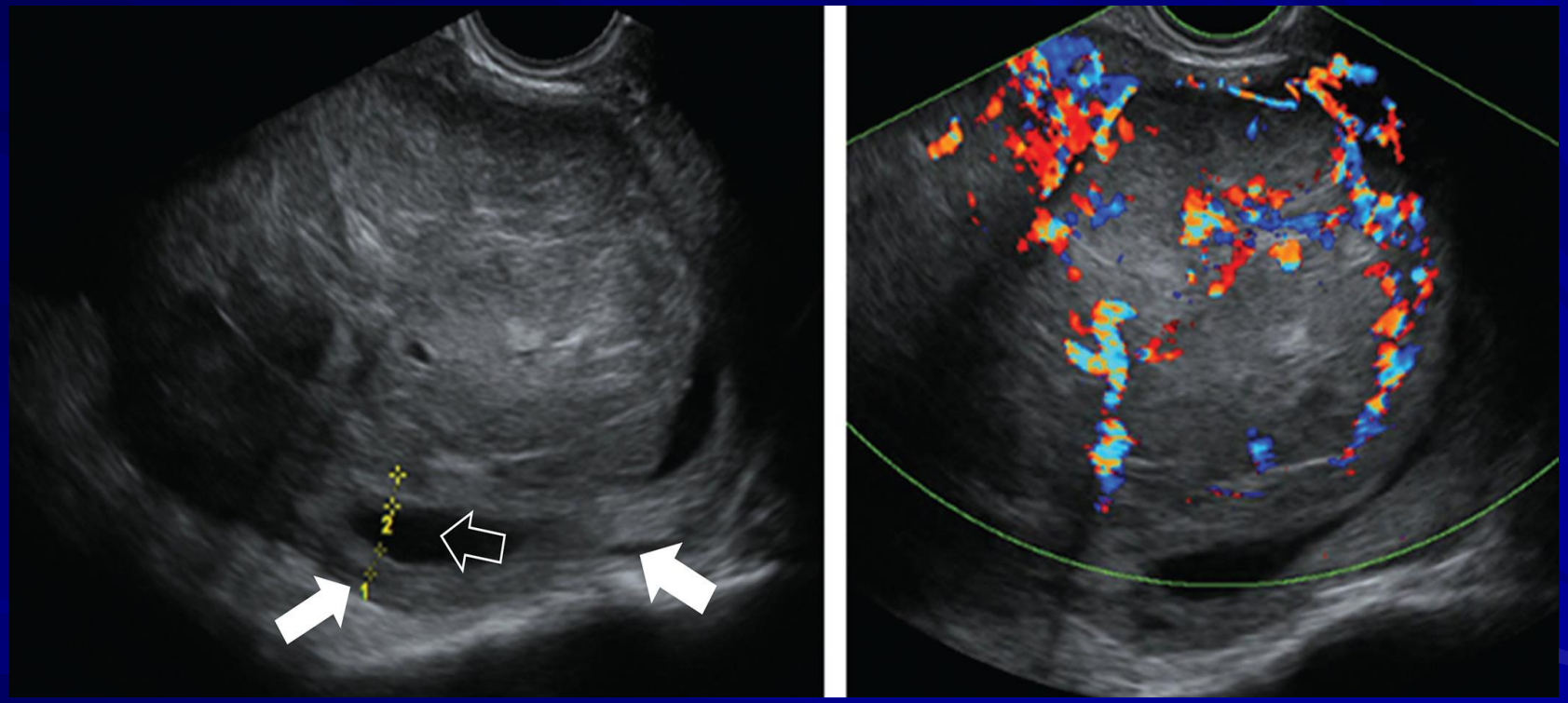


Adenomyoma

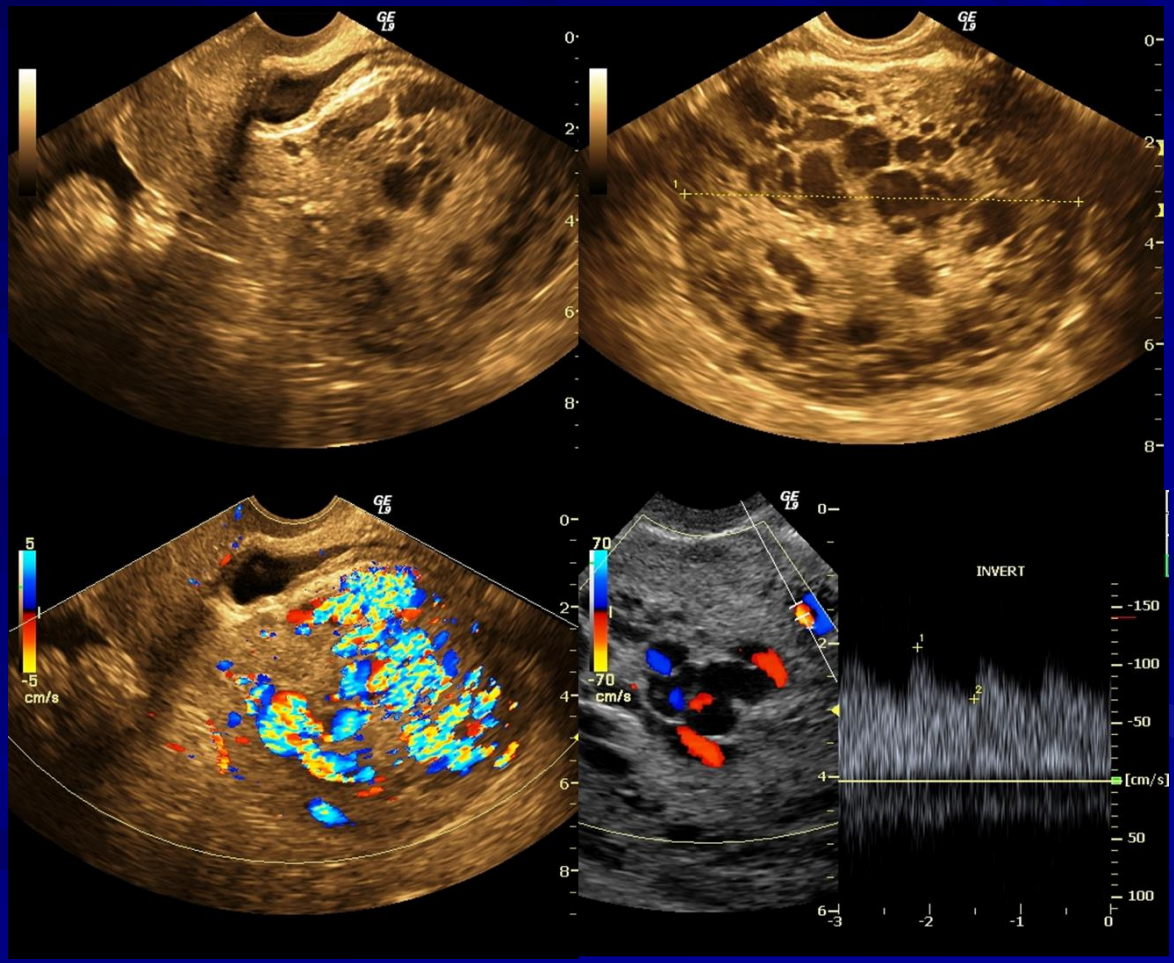
# Serviks ca



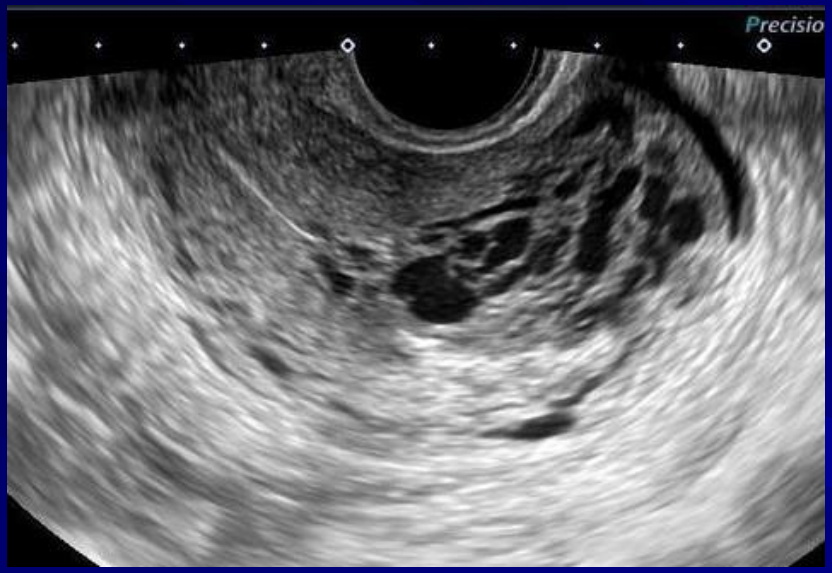
# Leiomyosarcoma

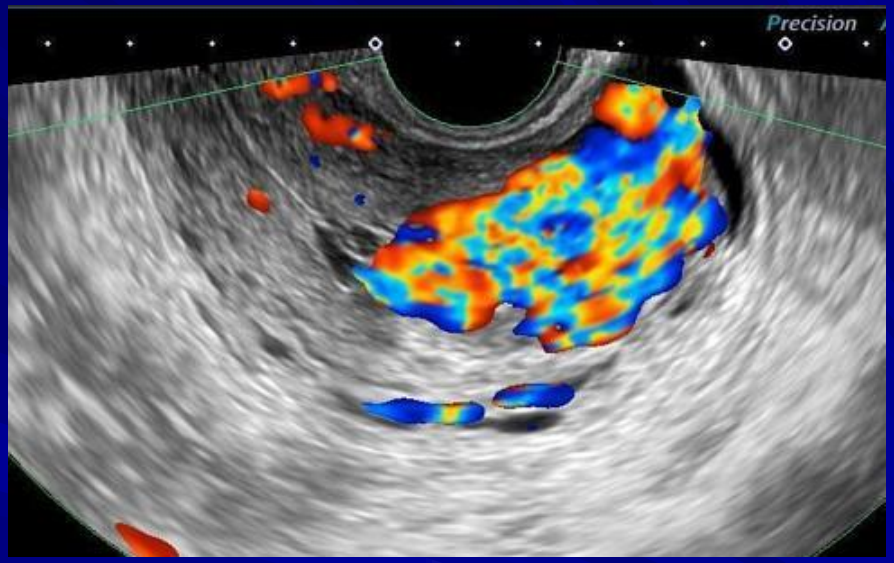


# Corionkarsinoma



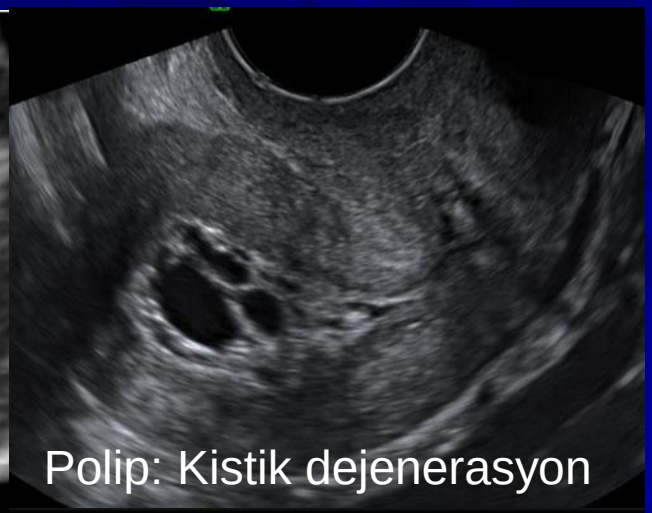
# Uterin AVM

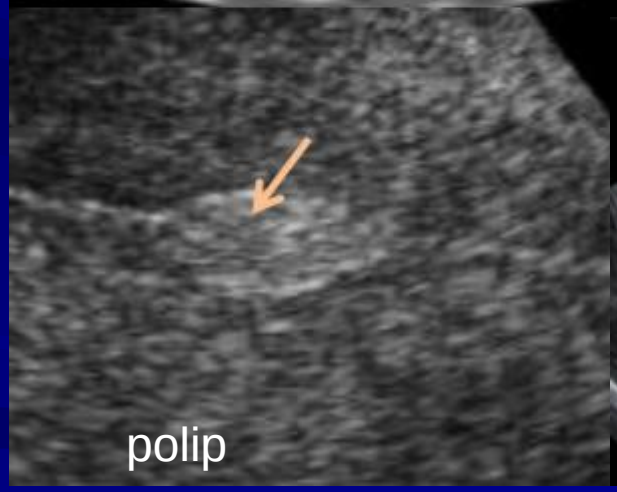


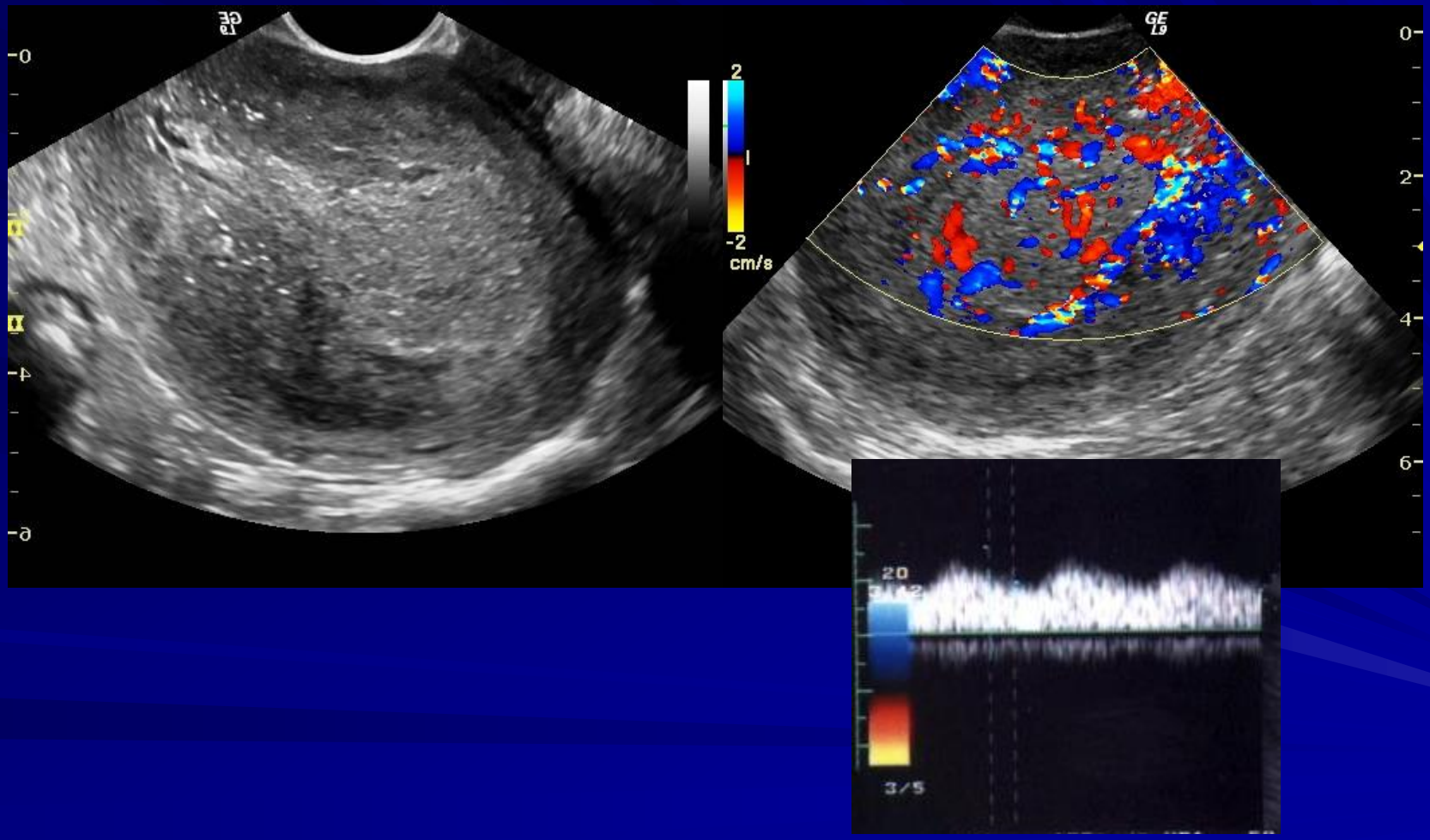
# Endometrium

Premenepoz
<16 mm
Postmenepoz
<5 mm

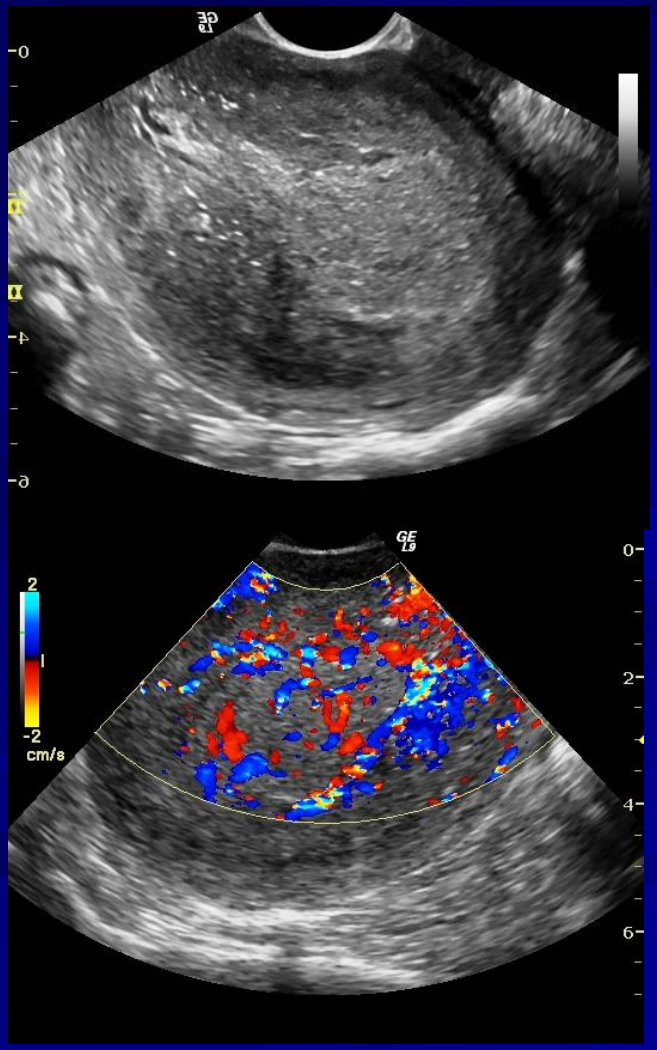


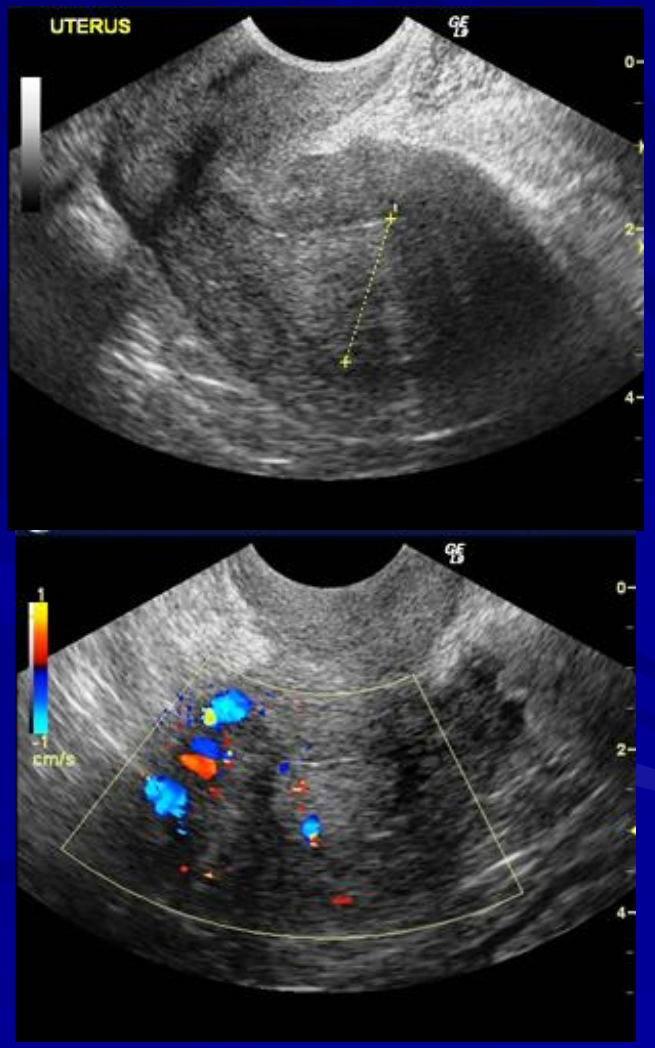

# Endometrial ca



## Endometrial ca




## Endometrial Polip



# Adneksal kitleler

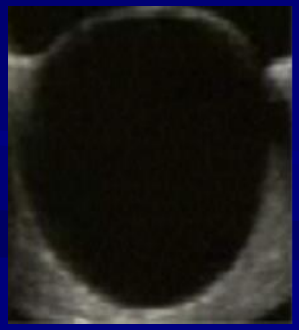
- Kadınlarda yaşam boyu over tümöründen ölüm oranı %1.1 (4.ölüm nedeni)
- %75 ileri dönemde tanı konuyor
- ABD 9.1 de 1
- Avrupa 5.9 da 1
- Onkoloji merkezi 2.3 de 1

# Adneksal kitleler

- Benign
- Malign
- Sınıflandırılamayan

# IOTA Basit skor

| International Ovarian Tumor Analysis (IOTA) simple rules | | | |
|---|---|---|---|
| B1 | Unilocular cyst | M1 | Irregular solid tumor |
| B2 | Presence of solid components, maximal diameter < 7 mm | M2 | Presence of ascites |
| B3 | Presence of acoustic shadows | M3 | At least four papillary structures |
| B4 | Smooth multilocular tumor, maximal diameter < 100 mm | M4 | Irregular multilocular solid tumor, maximal diameter >100mm |
| B5 | No blood flow (color score 1) | M5 | Very strong blood flow (color score 4) |



%0.6

%10

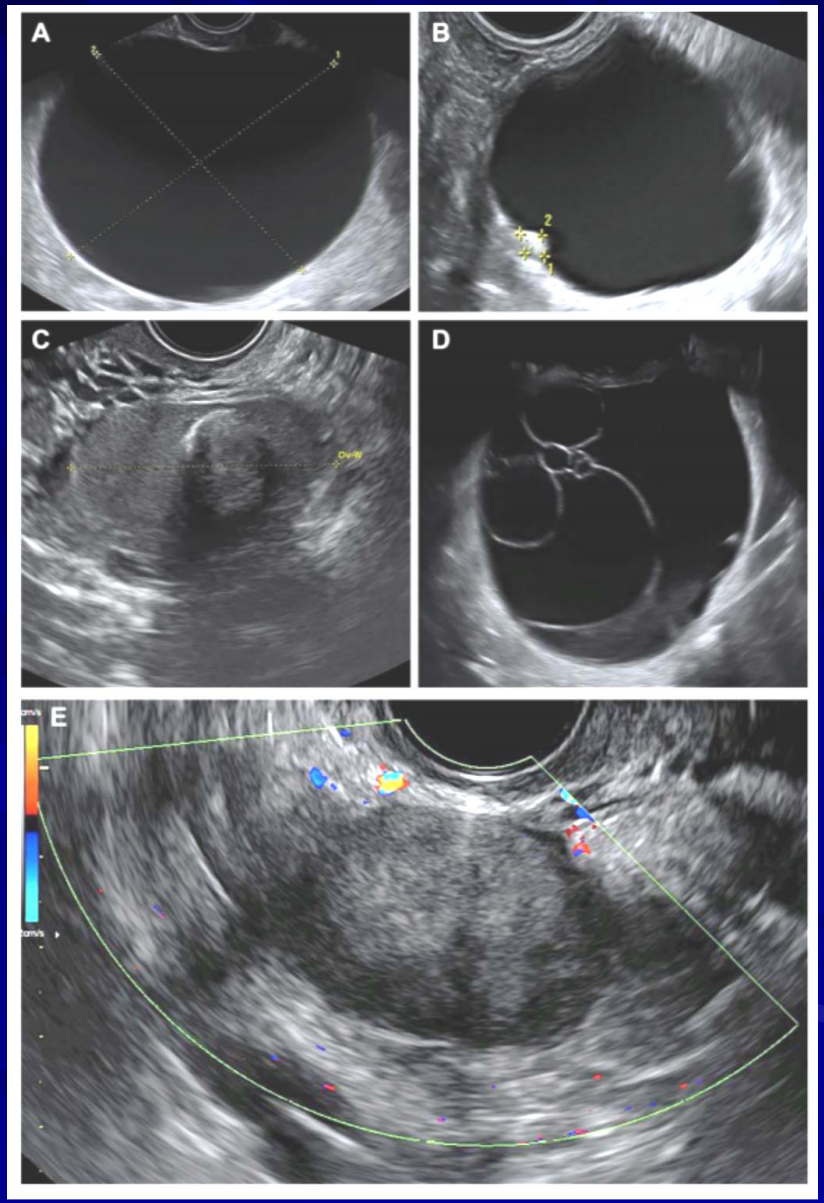
%37

%43

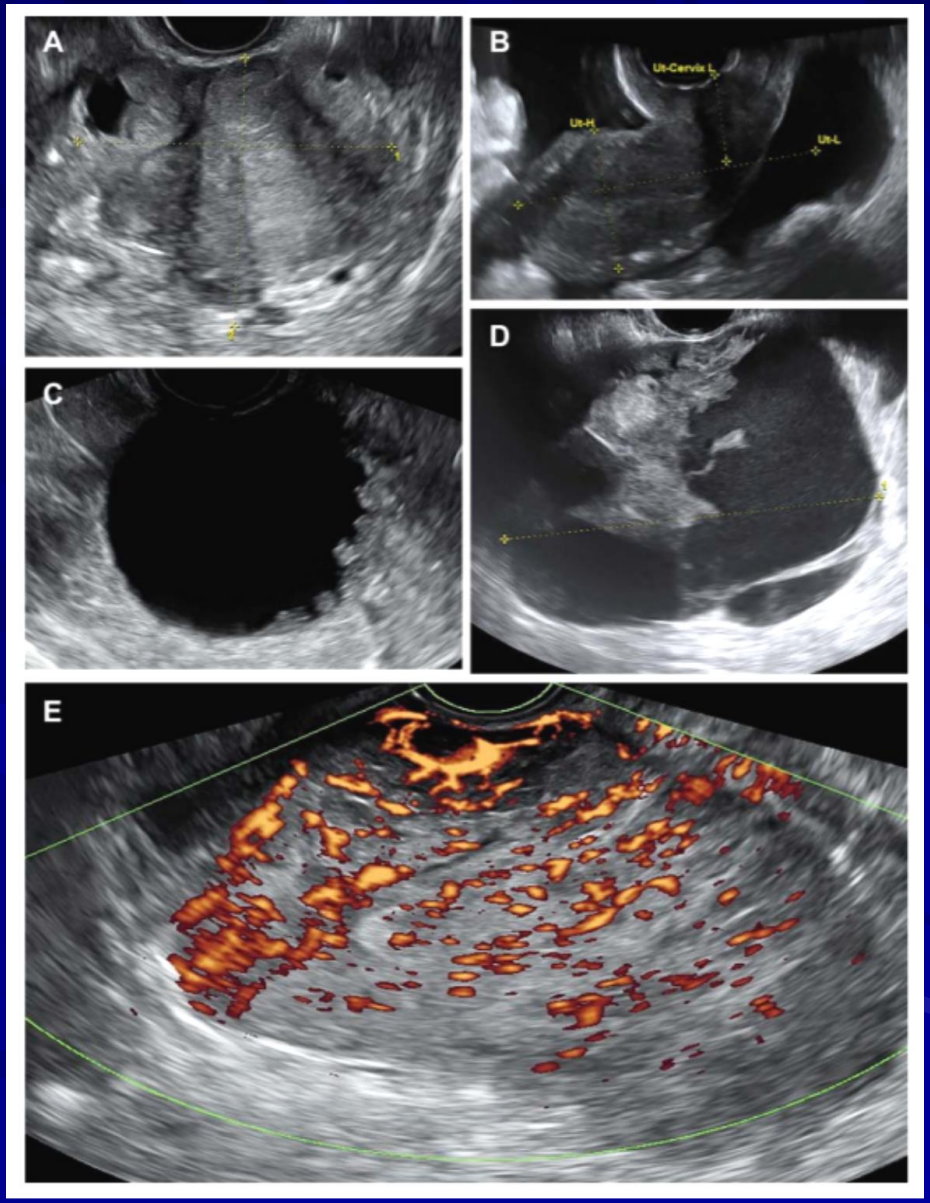
%65

## International Ovarian Tumor Analysis (IOTA) simple rules

| | |
|---|---|
| B1 | Unilocular cyst |
| B2 | Presence of solid components, maximal diameter < 7 mm |
| B3 | Presence of acoustic shadows |
| B4 | Smooth multilocular tumor, maximal diameter < 100 mm |
| B5 | No blood flow (color score 1) |



| | |
|---|---|
| M1 | Irregular solid tumor |
| M2 | Presence of ascites |
| M3 | At least four papillary structures |
| M4 | Irregular multilocular solid tumor, maximal diameter >100mm |
| M5 | Very strong blood flow (color score 4) |



AJOG American Journal of Obstetrics & Gynecology

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# Predicting the risk of malignancy in adnexal masses based on the *Simple Rules* from the International Ovarian Tumor Analysis group

Dirk Timmerman, MD, PhD[1], Ben Van Calster, MSc, PhD[1], Antonia Testa, MD, PhD, Luca Savelli, MD, PhD, Daniela Fischerova, MD, PhD, Wouter Froyman, MD, Laure Wynants, MSc, Caroline Van Holsbeke, MD, PhD, Elisabeth Epstein, MD, PhD, Dorella Franchi, MD, Jeroen Kaijser, MD, PhD, Artur Czekierdowski, MD, PhD, Stefano Guerriero, MD, PhD, Robert Fruscio, MD, PhD, Francesco P.G. Leone, MD, Alberto Rossi, MD,

## Results

Data on 4848 patients were analyzed. The malignancy rate was 43% (1402/3263) in oncology centers and 17% (263/1585) in other centers. The area under the receiver operating characteristic curve on validation data was very similar in oncology centers (0.917; 95% confidence interval, 0.901–0.931) and other centers (0.916; 95% confidence interval, 0.873–0.945). Risk estimates showed good calibration. In all, 23% of patients in the validation data set had a very low estimated risk (<1%) and 48% had a high estimated risk (≥30%). For the 1% risk cutoff, sensitivity was 99.7%, specificity 33.7%, LR+ 1.5, LR– 0.010, PPV 44.8%, and NPV 98.9%. For the 30% risk cutoff, sensitivity was 89.0%, specificity 84.7%, LR+ 5.8, LR– 0.13, PPV 75.4%, and NPV 93.9%.

%0.6

%10

%37

%43

%65

# Subjektif Tanı

- Kitlelerin sonografik görünümlerini değerlendirerek spesifik tanıya gitmek

= pattern recognition


Doğru tanı %90-92

- Tanı her zaman mümkün değil
  - Spesifik semptom yok
  - Histolojik tipler çeşitli
  - Histolojik olarak aynı kitlelerin çeşitli makrokopik görüntüleri var
  - Fonksiyonel kistler
  - Borderline tm

**Subjective evaluation is an excellent method**

IOTA, 3511 adnexal masses
Sensitvity 90%, specificity 94%
LR+ 15, LR- 0.11

*Ultrasound Obstet Gynecol* 2011; 38: 456–465

# Subjective assessment versus ultrasound models to diagnose ovarian cancer: A systematic review and meta-analysis

E.M.J. Meys [a], J. Kaijser [b,1], R.F.P.M. Kruitwagen [a], B.F.M. Slangen [a], B. Van Calster [c], B. Aertgeerts [d], J.Y. Verbakel [d,e], D. Timmerman [b], T. Van Gorp [a,*]

[a] *Department of Obstetrics and Gynaecology, Maastricht University Medical Centre+ (MUMC+), GROW – School for Oncology and Developmental Biology, P.Debyelaan 25, 6202 AZ, Maastricht, The Netherlands*
[b] *Department of Obstetrics and Gynaecology and Leuven Cancer Institute, University Hospital KU Leuven, Herestraat 49, Leuven 3000, Belgium*
[c] *Department of Development and Regeneration, KU Leuven, Herestraat 49, Leuven 3000, Belgium*
[d] *Department of General Practice, KU Leuven, Kapucijnenvoer 33, Leuven 3000, Belgium*
[e] *Nuffield Department of Primary Care Health Sciences, University of Oxford, Woodstock Road, Oxford OX2 6GG, UK*

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| | Premenopausal | | Postmenopausal | |
|---|---|---|---|---|
| | Sens. (95%CI) | Spec. (95%CI) | Sens. (95%CI) | Spec. (95%CI) |
| RMI-I | 0.63 (0.51–0.73) | 0.93 (0.89–0.95) | 0.79 (0.77–0.82) | 0.86 (0.79–0.91) |
| RMI-II | 0.58 (0.46–0.68) | 0.91 (0.87–0.94) | 0.84 (0.80–0.87) | 0.80 (0.76–0.83) |
| RMI-III | 0.57 (0.45–0.68) | 0.90 (0.85–0.93) | 0.79 (0.76–0.82) | 0.89 (0.87–0.92) |
| SA | 0.90 (0.88–0.91) | 0.94 (0.93–0.95) | 0.94 (0.93–0.95) | 0.85 (0.82–0.88) |
| SR+SA | 0.89 (0.86–0.92) | 0.91 (0.85–0.95) | 0.92 (0.90–0.94) | 0.87 (0.84–0.90) |
| SR+Mal | 0.93 (0.90–0.95) | 0.82 (0.79–0.85) | 0.95 (0.92–0.96) | 0.77 (0.71–0.81) |
| LR2 | 0.87 (0.81–0.91) | 0.91 (0.86–0.94) | 0.94 (0.92–0.96) | 0.86 (0.82–0.89) |

47 makale
19 674 kitle

# Benign kitleler

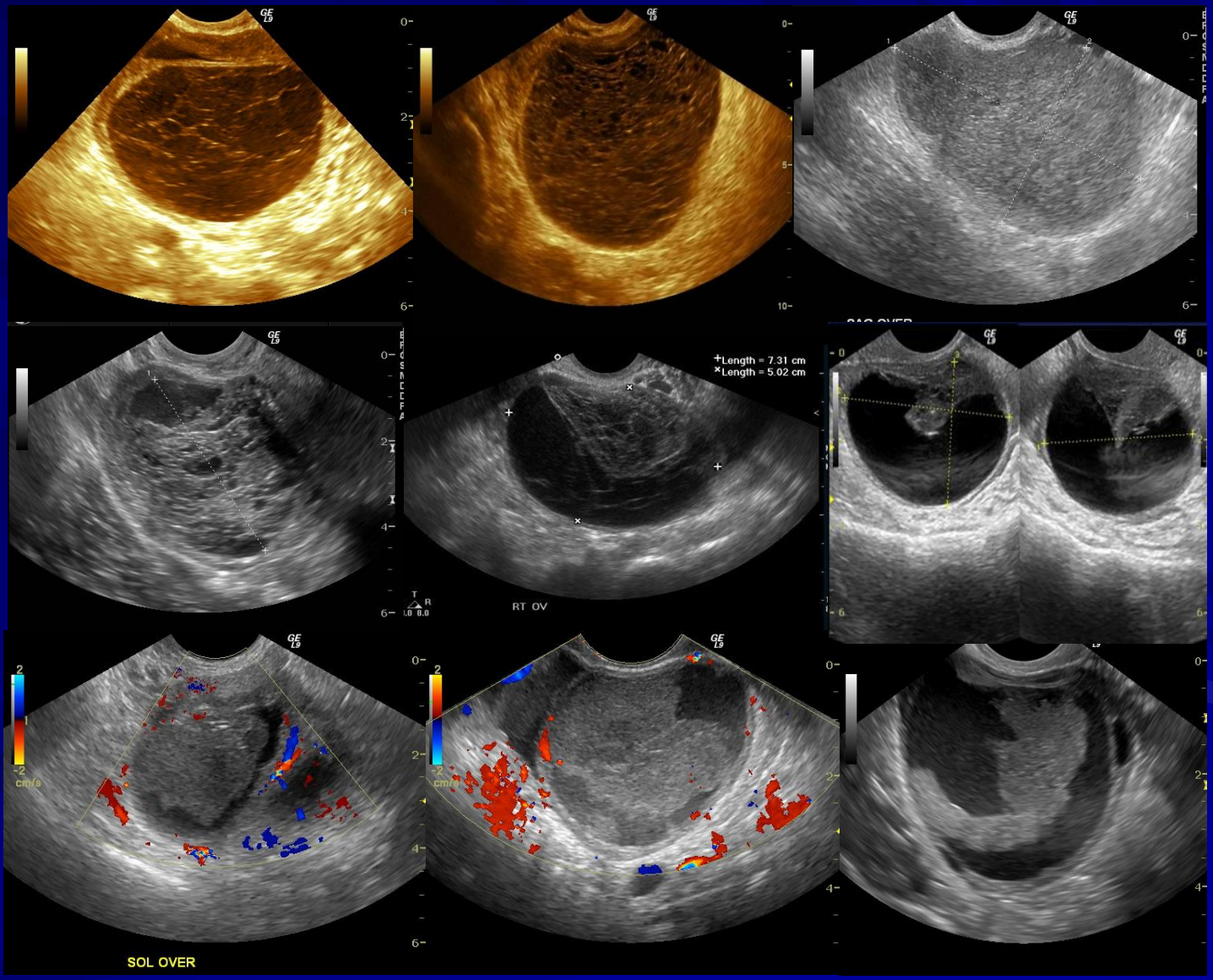
## İntraovarian

- Korpus luteum
- Hemorajik kist
- Endometrioma
- Dermoid kist
- Fibroma

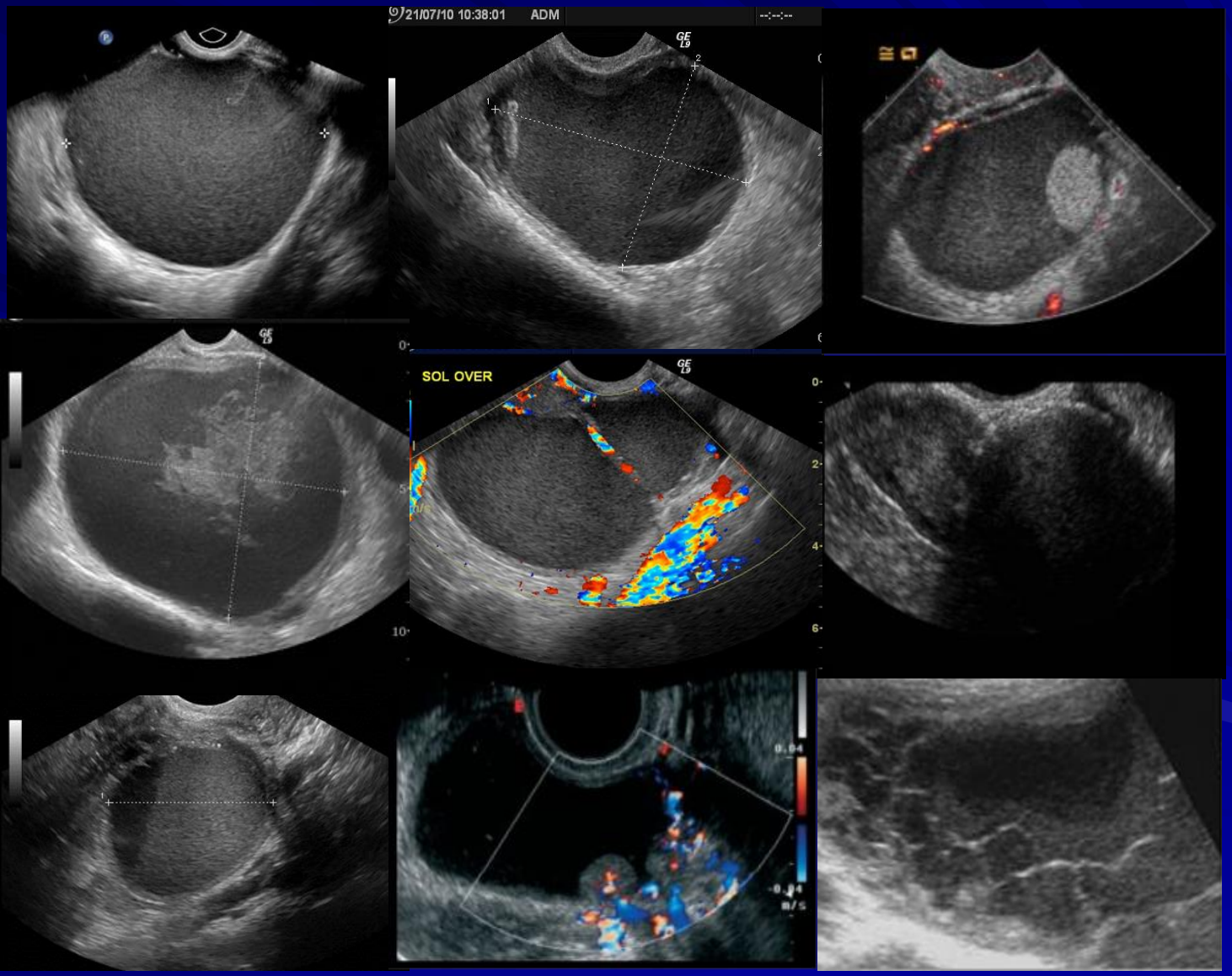
## Ekstraovarian

- Seröz kist-Kist adenom
- Peritoneal inklüzyon kistleri
- Hidrosalpenks
- Tubaovarian enfeksiyon
- Pedinküle myom ( uterin - intraligamenter )

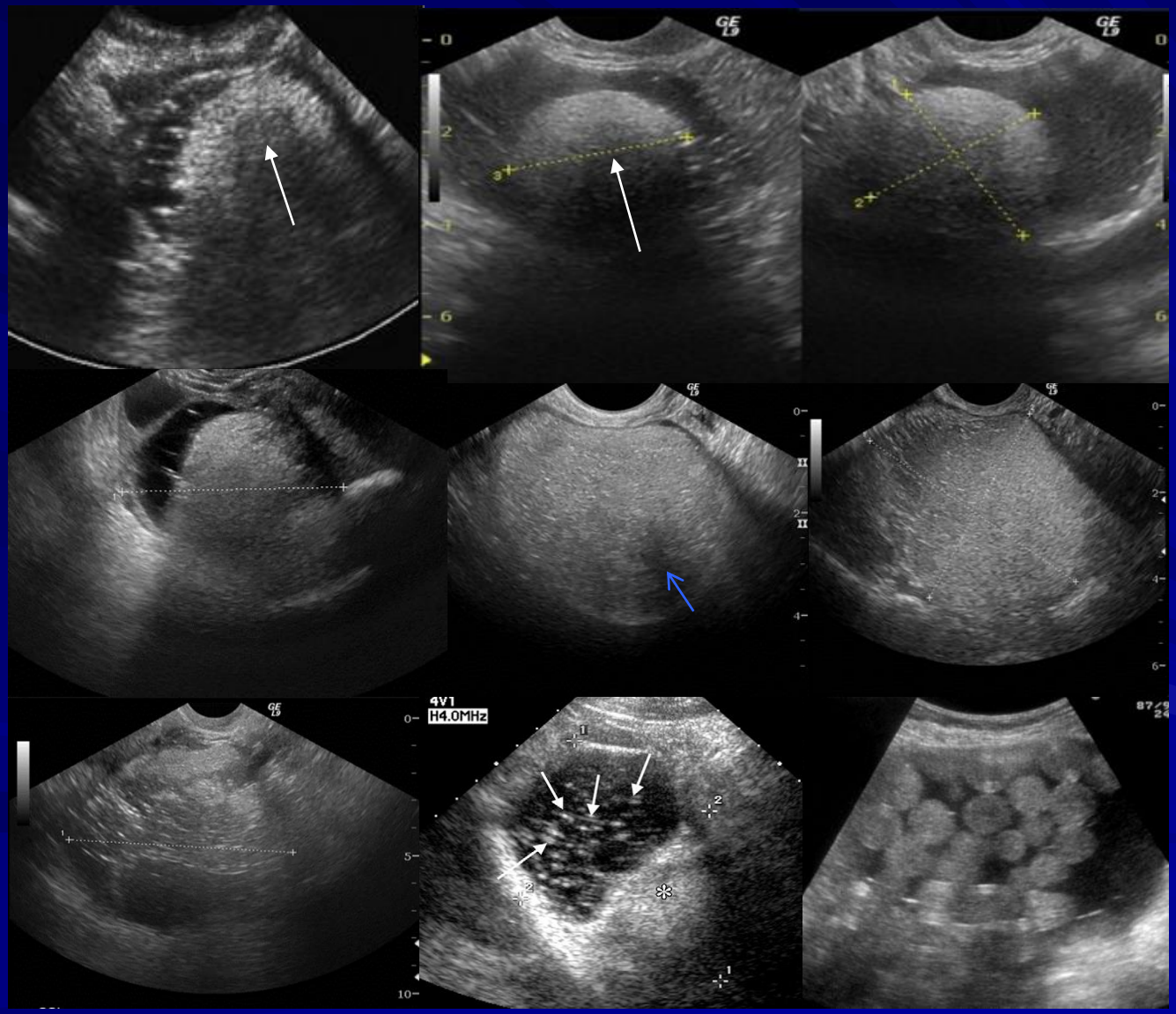
# Hemorajik kist



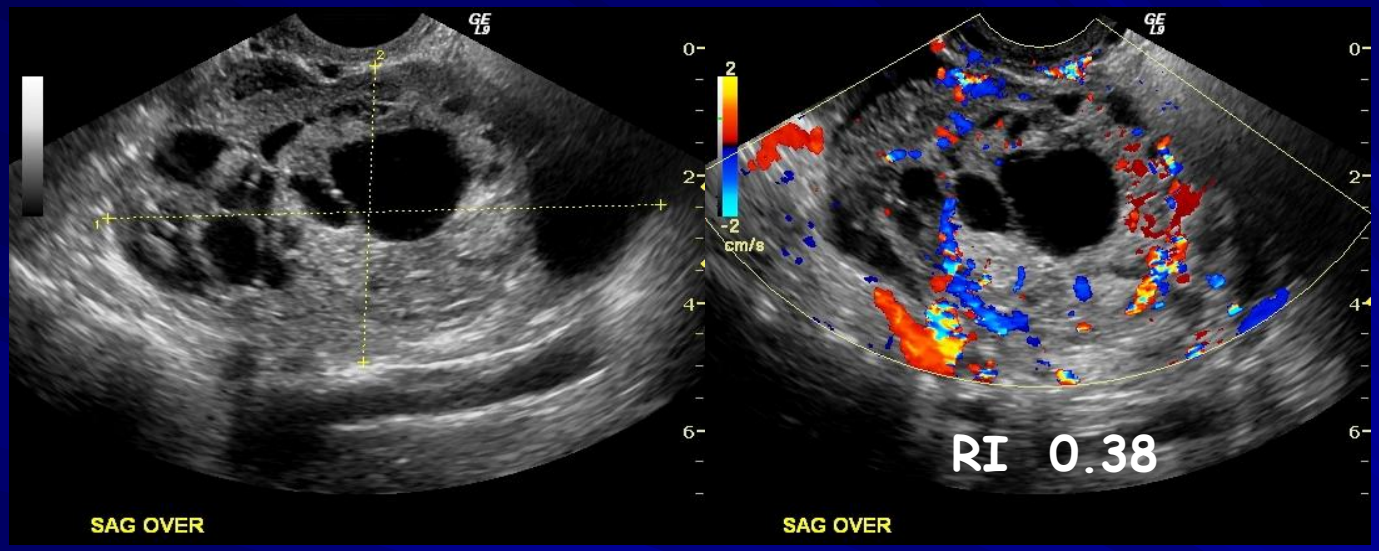
# Endometrioma

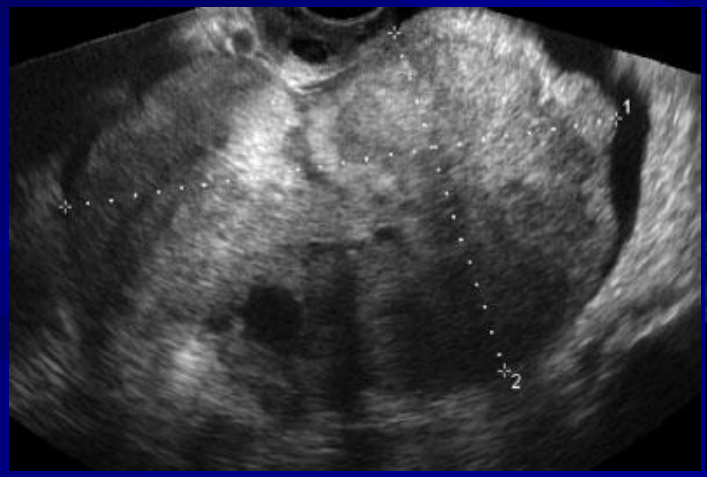


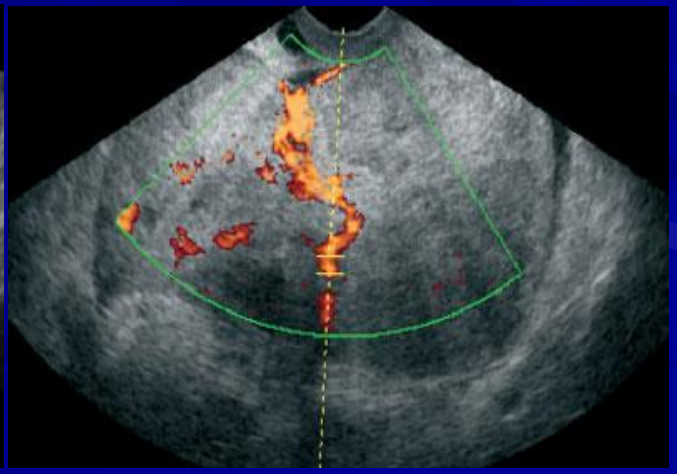
# Dermoid kist



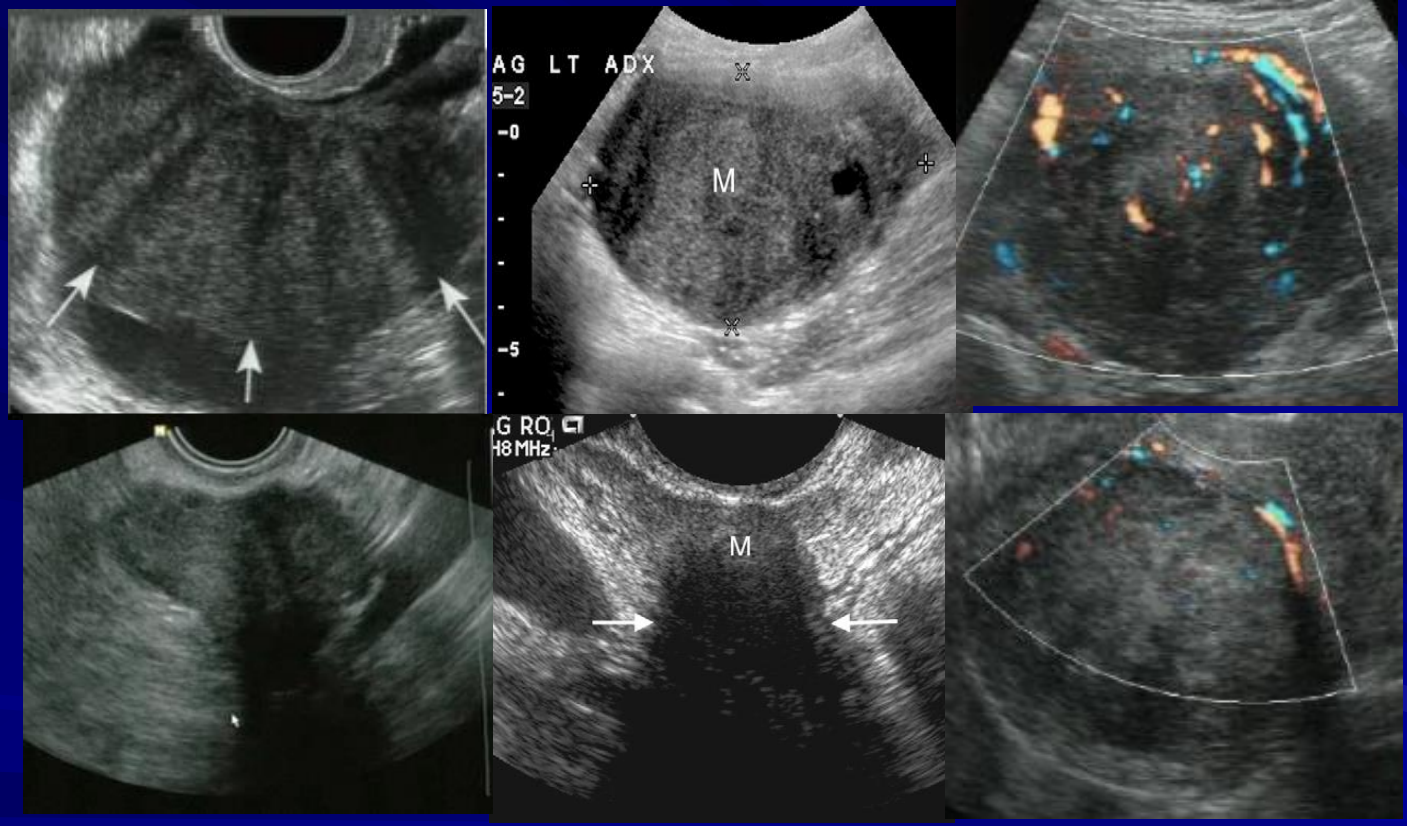
# Struma ovari



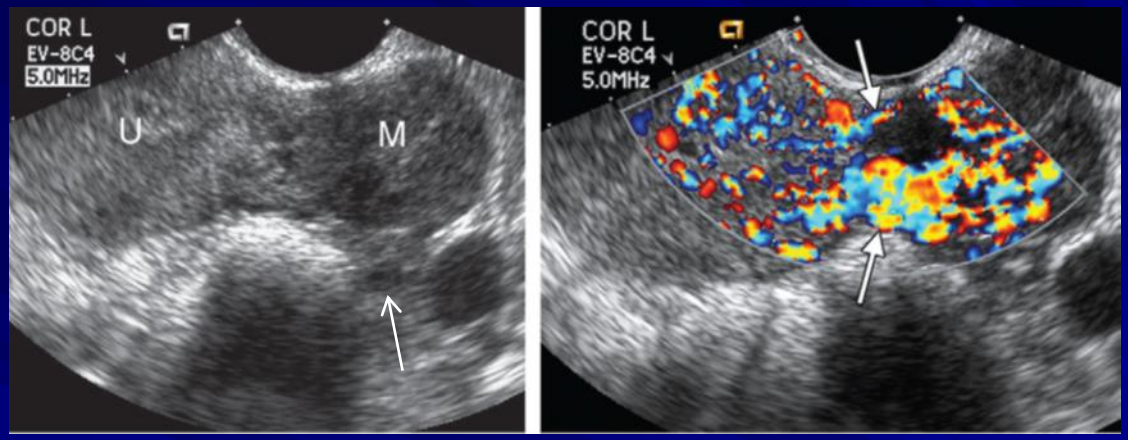



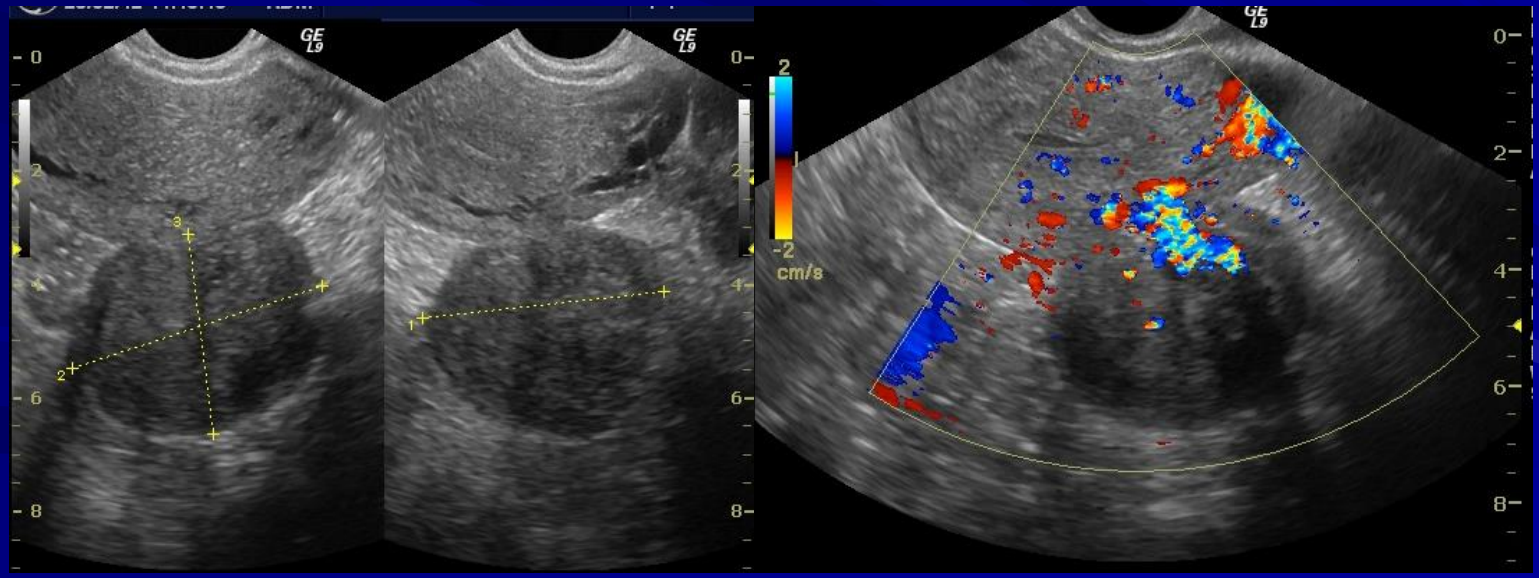


# Ovarian Fibroma

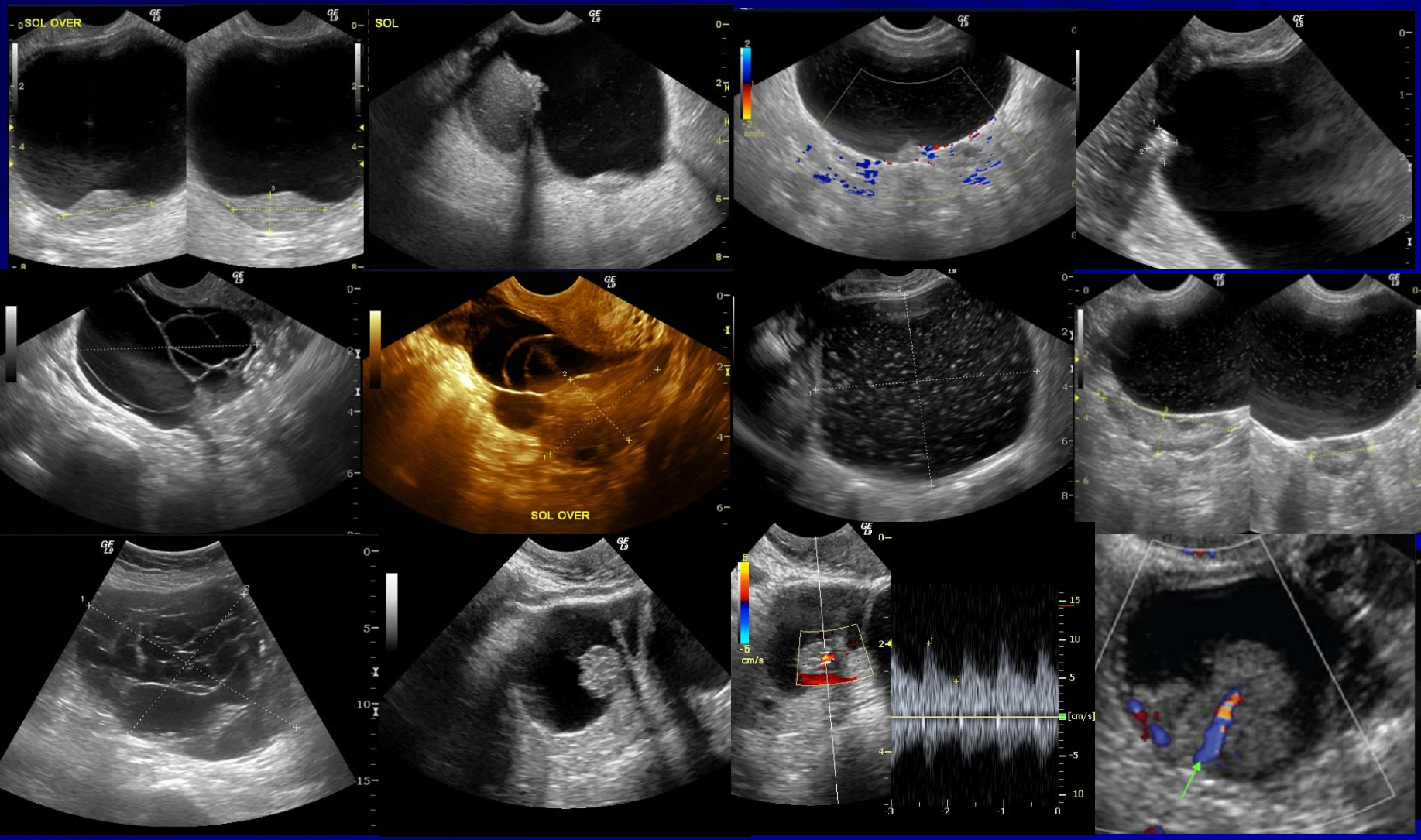


# Pedinküle myom

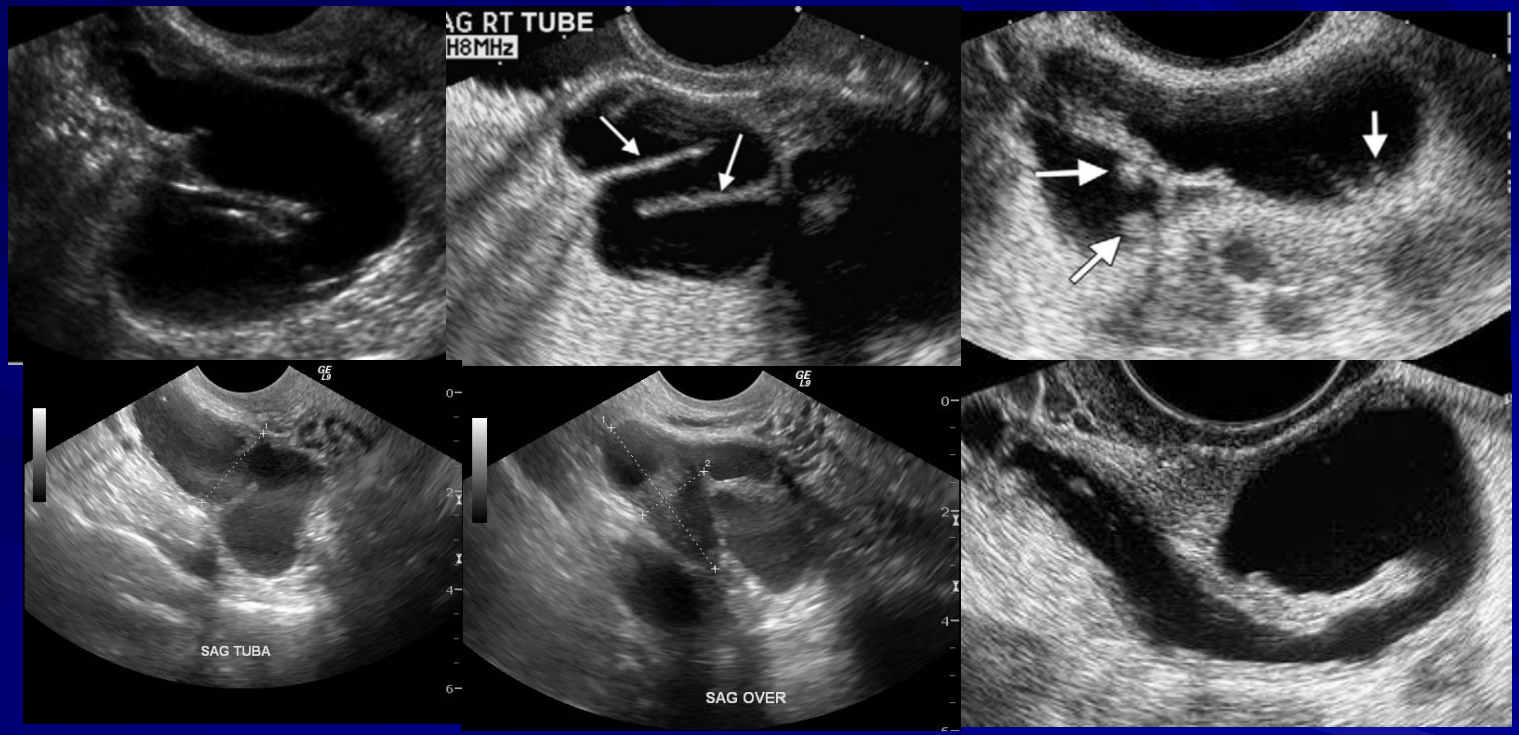


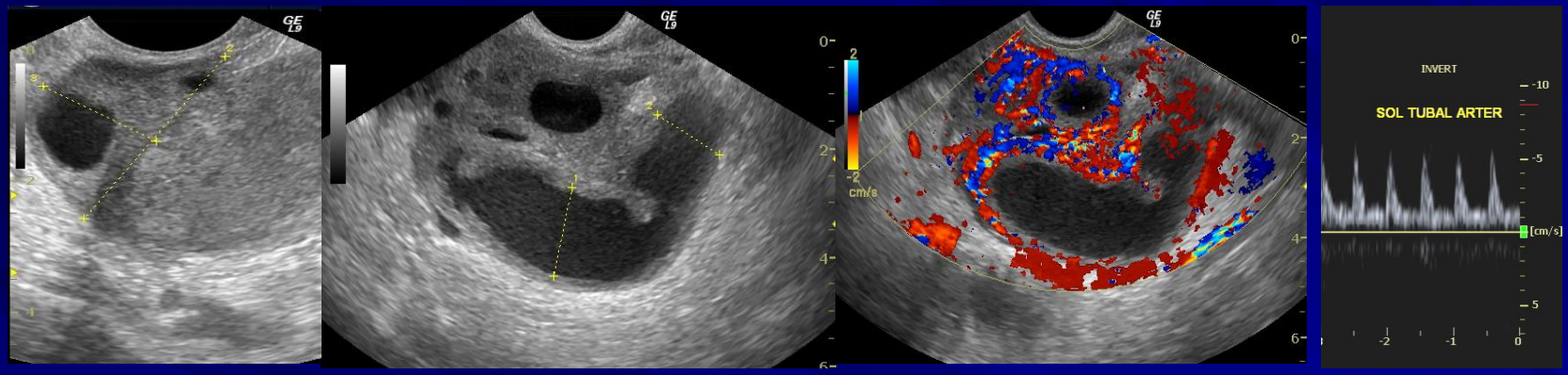
# Kist adenom

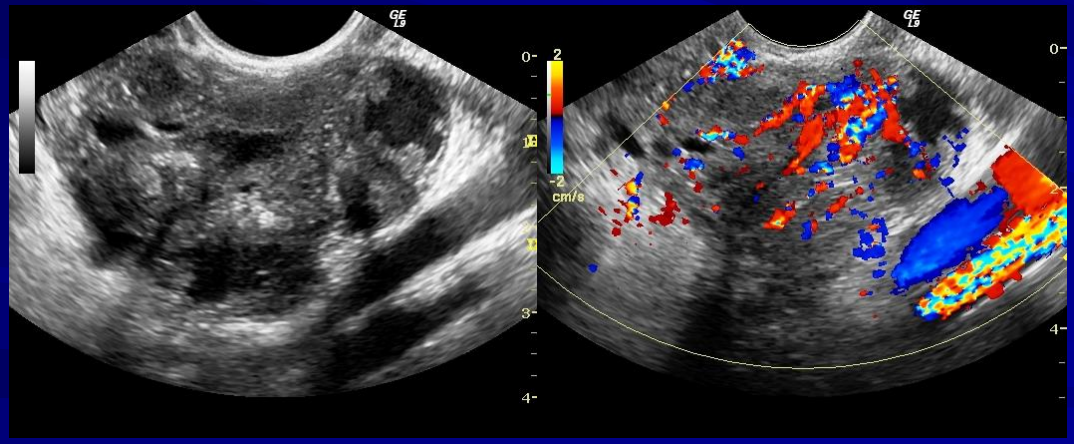


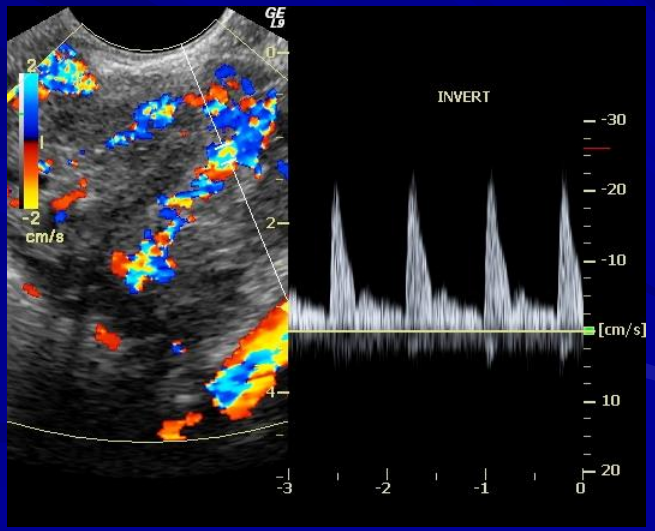
# Hidrosalpenks



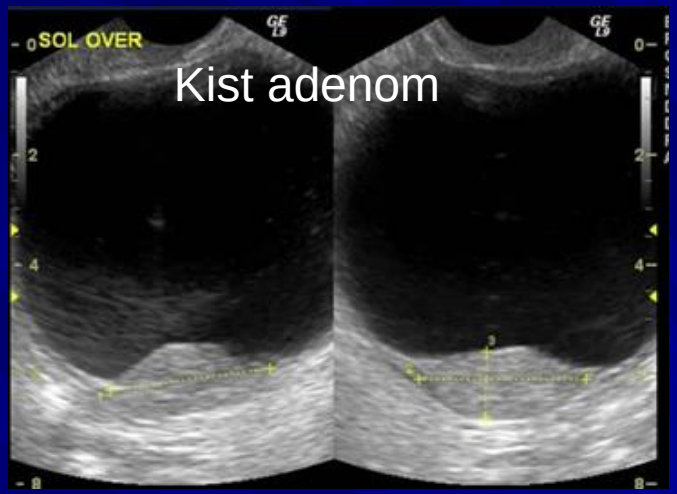
# Tubaovarian enfeksiyonlar

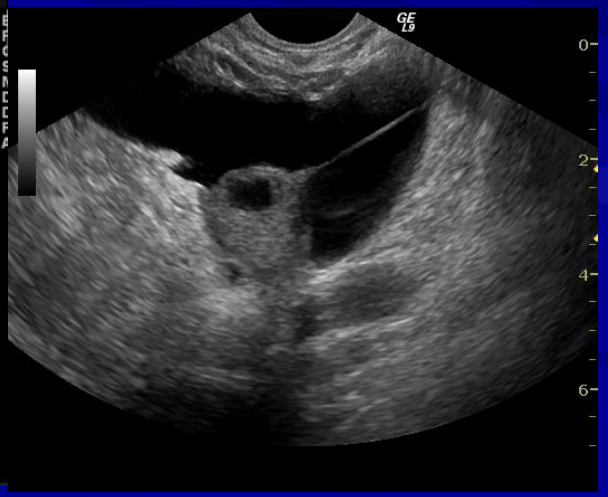


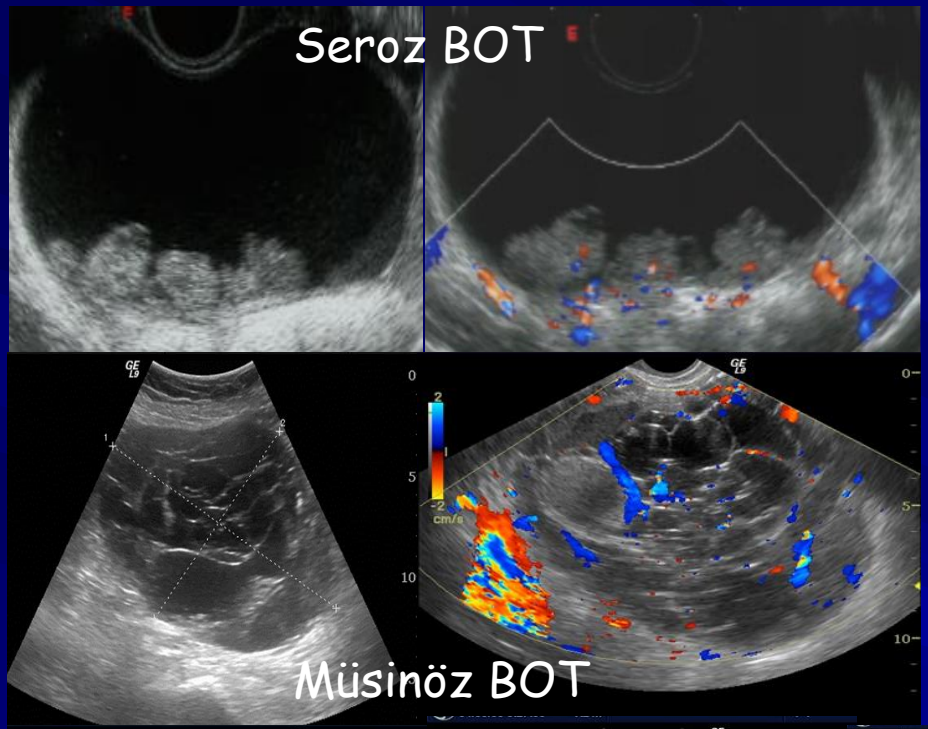



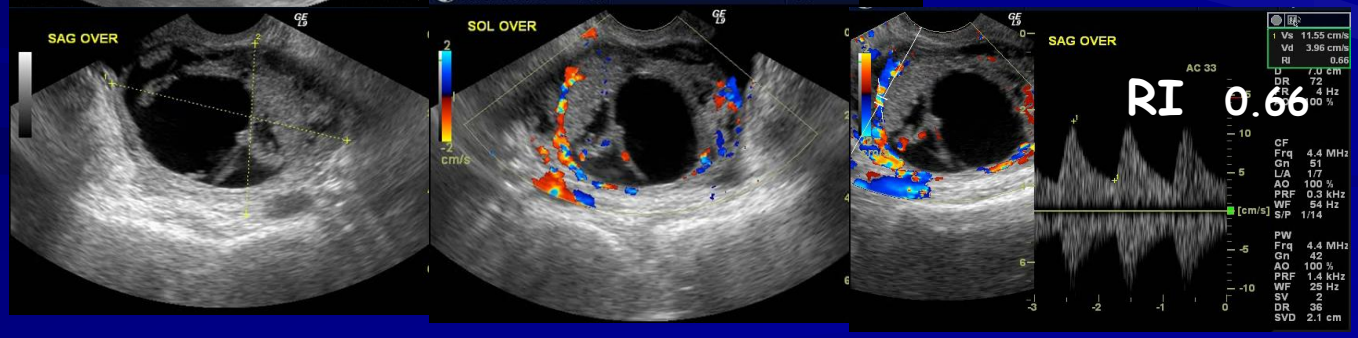
# Peritoneal inklüzyon kisti

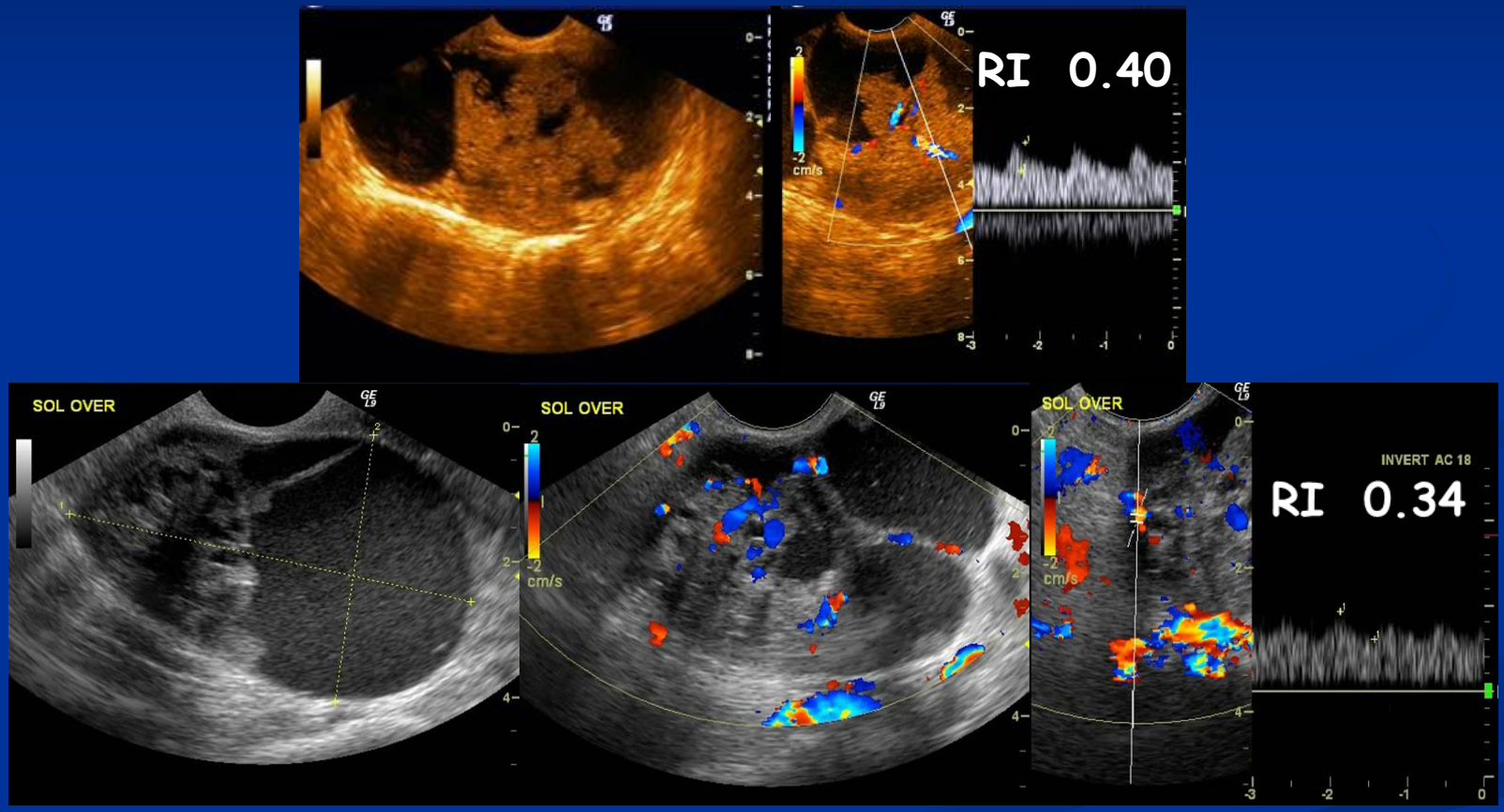



# Borderline over Tm (BOT)

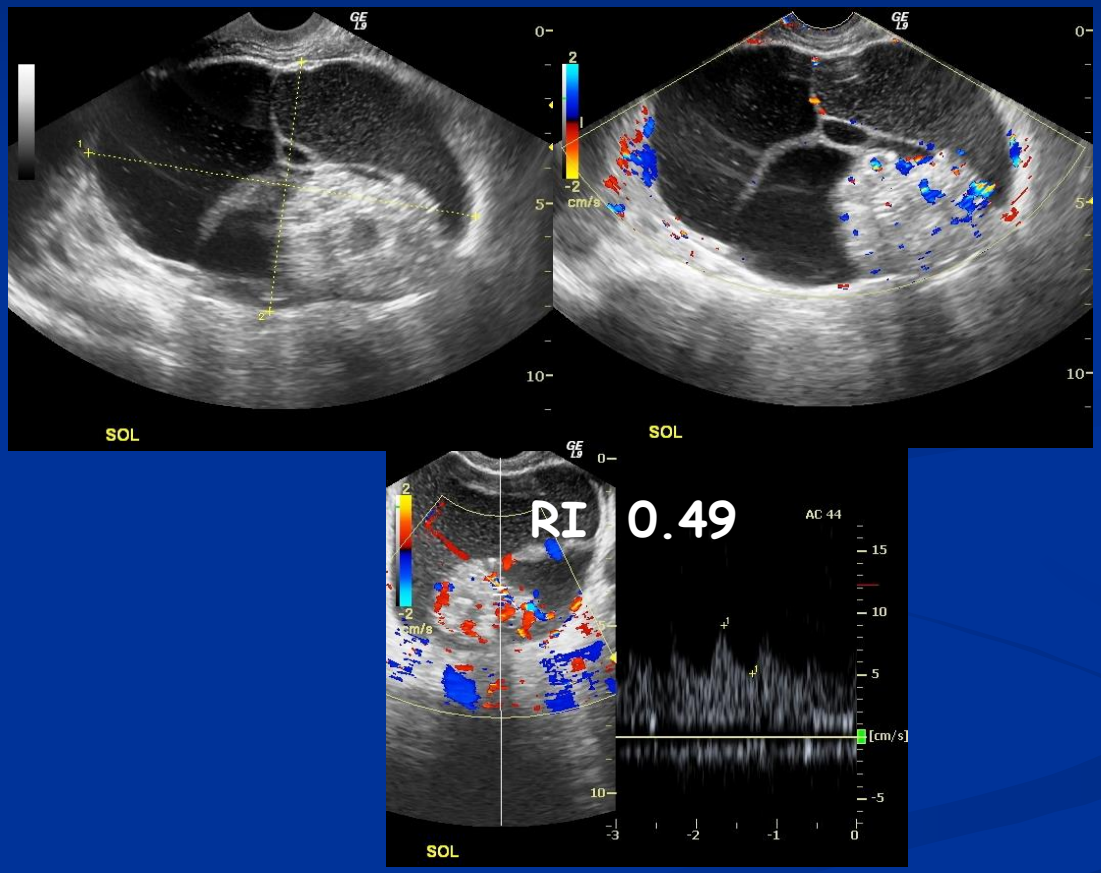


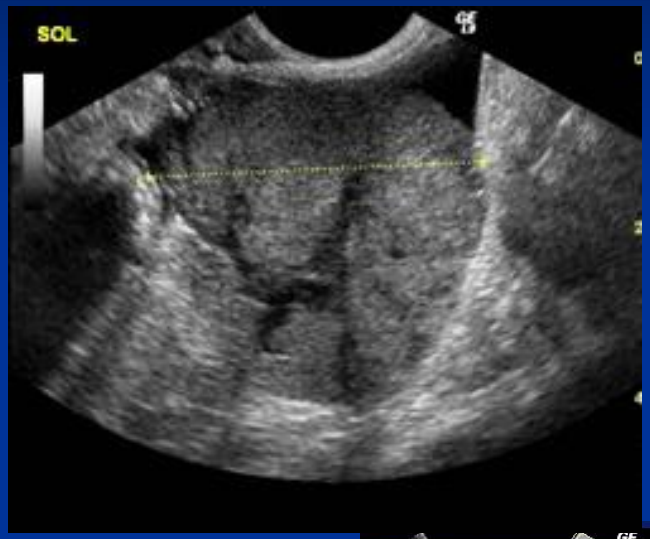
# Kistadenokarsinom

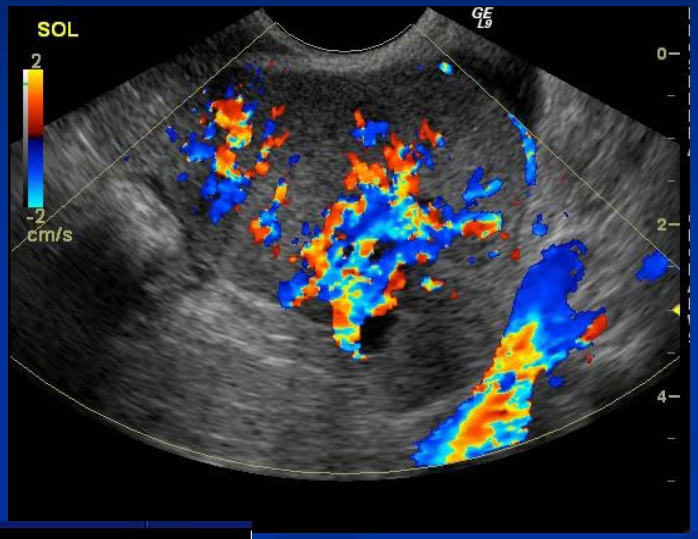


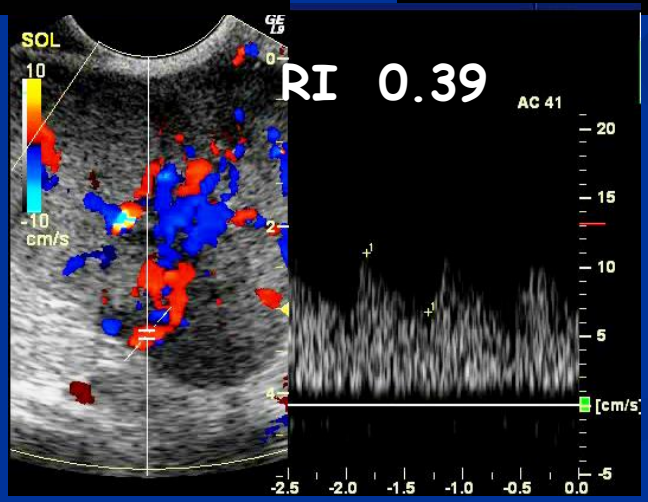
# Müsinöz kistadenokarsinom



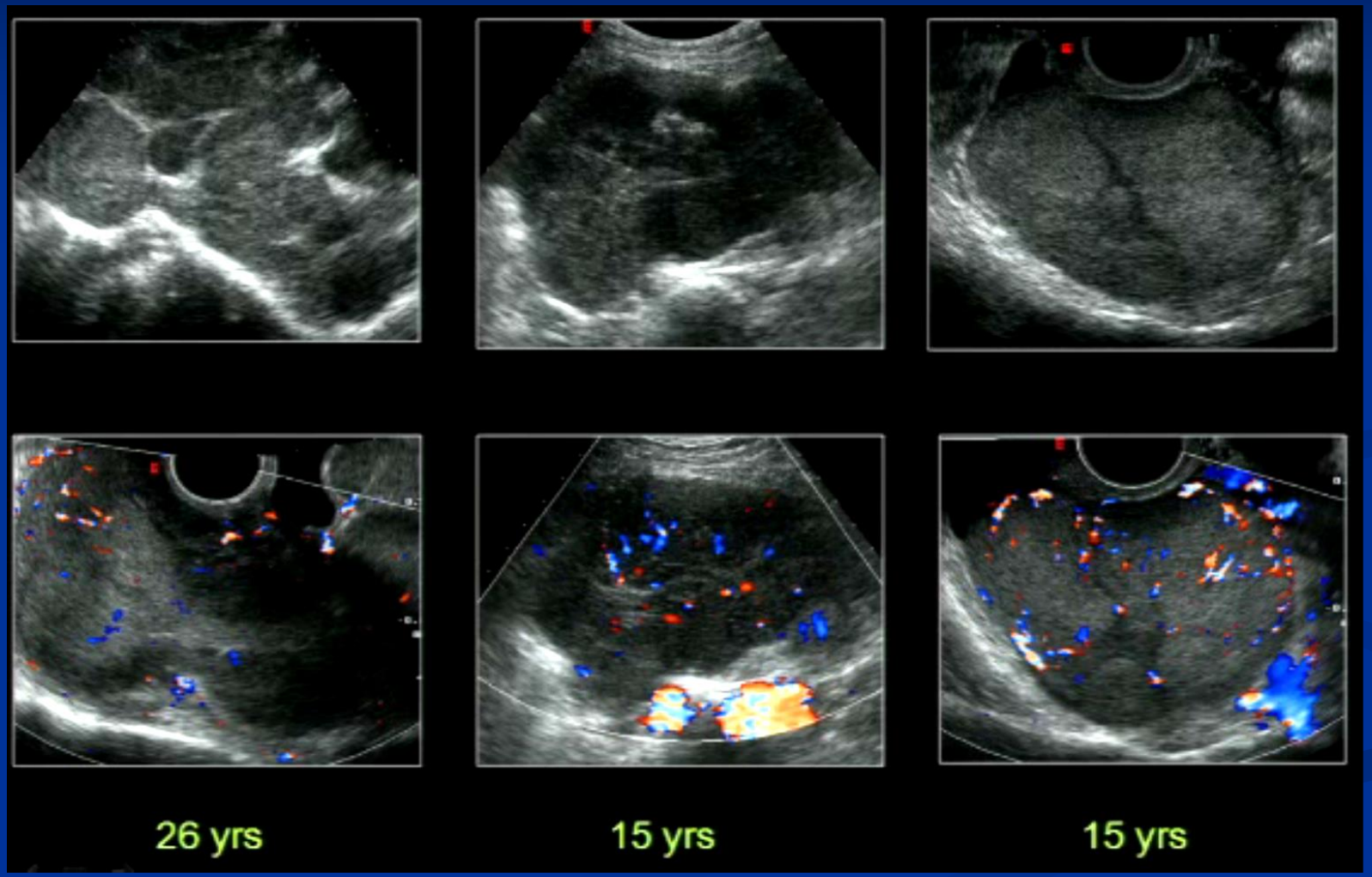
# Solid over tm



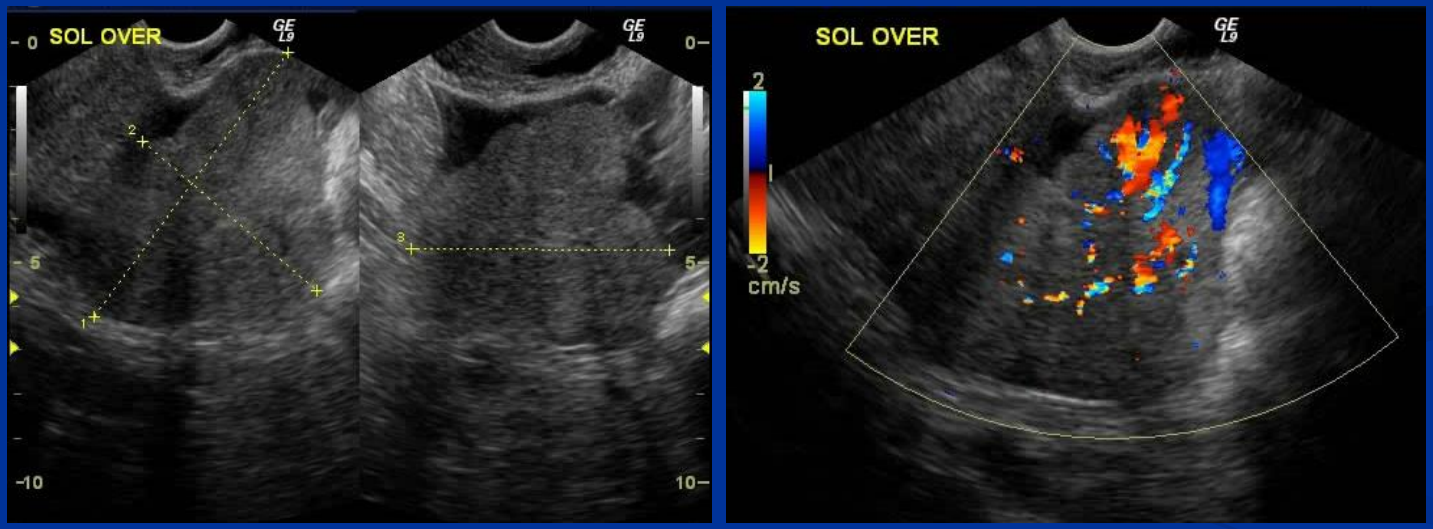



# Disgerminoma



# Meme ca over metastazı



# Özet

- Jinekolojik patolojilerin %90-98'ne sonografi ile tanı konabilir
- Subjektif değerlendirme skorlamadan daha iyi
- Deneyimsiz sonografistlerde skorlama daha iyi