

ERKEN GEBELİK ULTRASONOGRAFİSİ NORMAL BULGULAR, EKTOPİK VE SKAR GEBELİĞİ

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Kanuni Sultan Süleyman Eğitim ve Araştırma Hastanesi

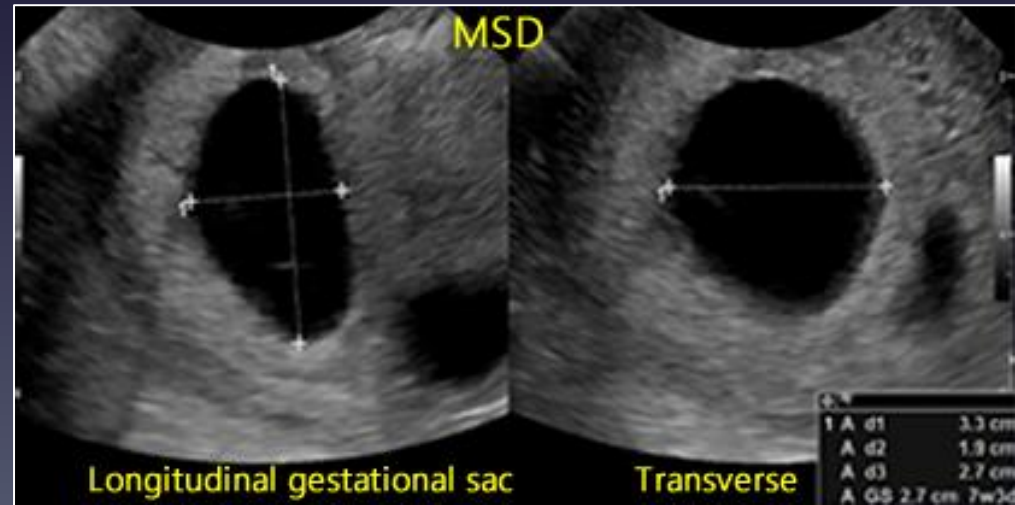
Perinatoloji Bölümü

Amaç

- Gebeliğin yerleşimi
- Gestasyonel yaş
- Embriyo sayısı
- Viabilite
- Çoğul gebelikte koryonisite / amniyonisite
- Jinekolojik patolojiler (adneksiyal kitle / myom / uterin anomali)

Gebelik kesesi

- 4+3 haftada (2-3mm)
- 5 haftada ≈ 5 mm
- Ortalama kese çapı
- OKÇ₅+30: Gestasyonel yaş

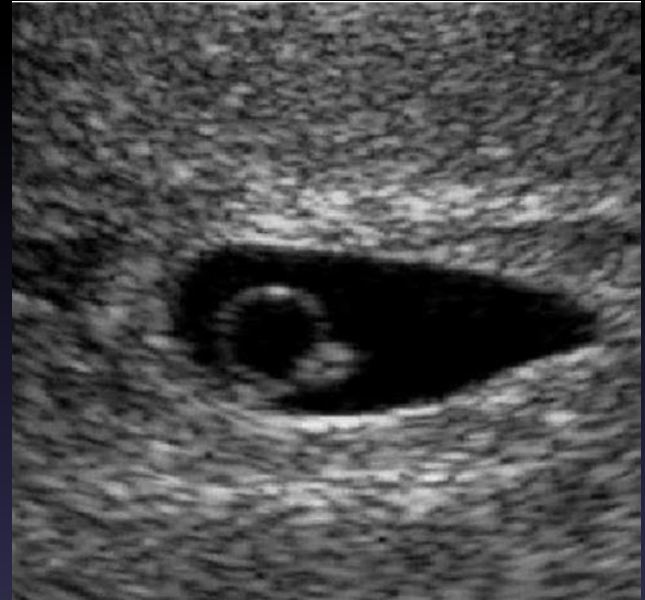


Yolk kesesi



- 5-5.5 haftada (OKÇ 5-6 mm iken)
- OKÇ 8 mm olduğunda mutlaka görülmeli
- 10. haftaya kadar büyür (6 mm)
- Gebeliğin intrauterin olduğunu gösterir

Embriyo

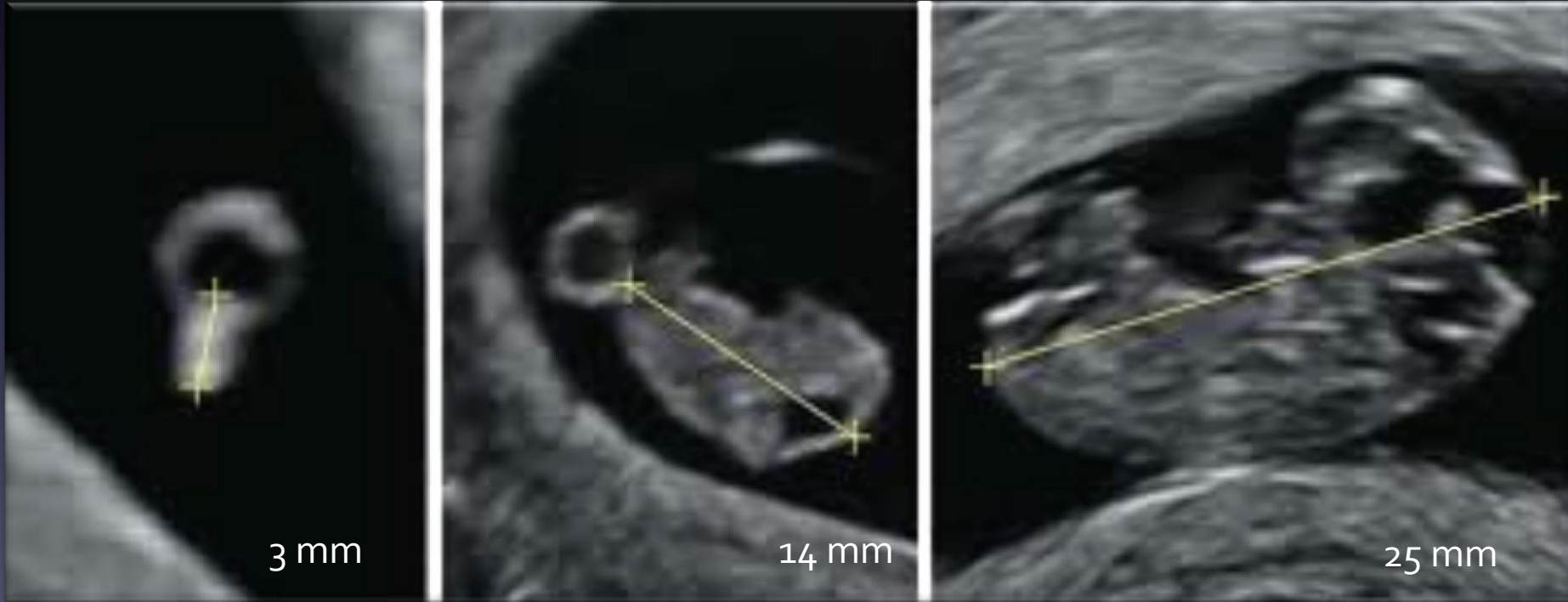


- 6 hafta (3-4 mm)
- 5-7 haftada günde 1 mm büyür

Baş popo mesafesi

8-13+6 haftada en doğru ölçüm

± 3 gün



Kardiyak aktivite

- 2-3 mm iken görülür
- 5.5-6.5 haftada <100 /dk olabilir
- Sonraki 3 haftada hızla yükselerek 180/dk'ya ulaşır

Çoğul gebelik

Koryonisite: Kalın membranla ayrılmış kese

Amniyonisite: Yolk kesesi



Number of yolk sacs does not predict amnionicity in early first-trimester monochorionic multiple gestations

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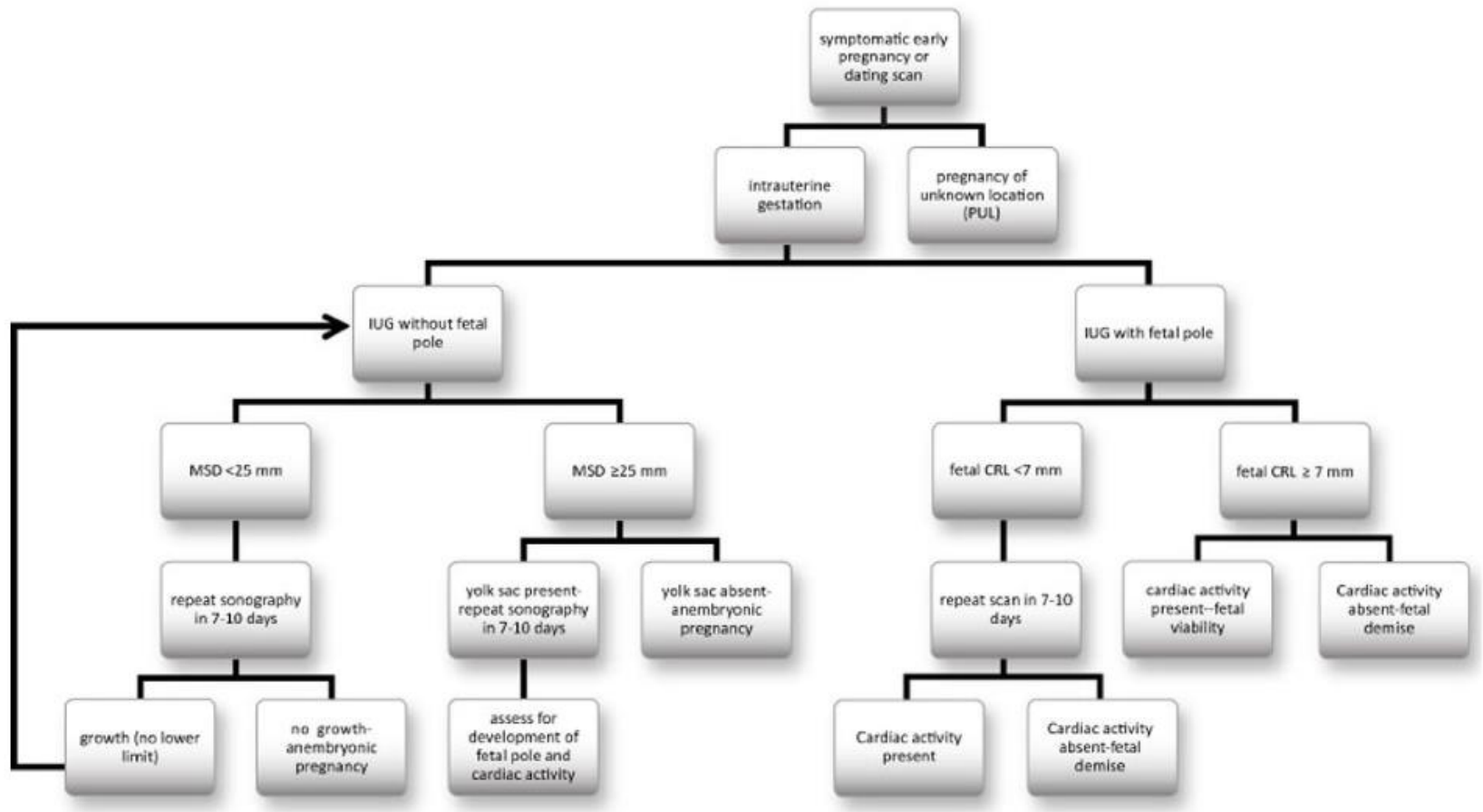


observation, the diagnosis of monoamnionicity can be ruled out when two yolk sacs are observed, but cannot be made based on the presence of a single yolk sac. The diagnosis of monoamnionicity is best deferred to a later stage, probably no earlier than 8–9 weeks of gestation, when the amniotic membrane's presence or absence can be determined directly and with certainty.

Non-viable gebelik

- Anembriyonik gebelik
 - OKÇ>8 mm- yolk kesesi (-), OKÇ >16 mm- embriyo (-) (SOGC)
 - OKÇ≥ 20 mm (RCOG, ASUM)
- Missed abortus
 - BPM>5 mm- FKA (-) (SOGC)
 - BPM≥ 6 mm (RCOG, ASUM)





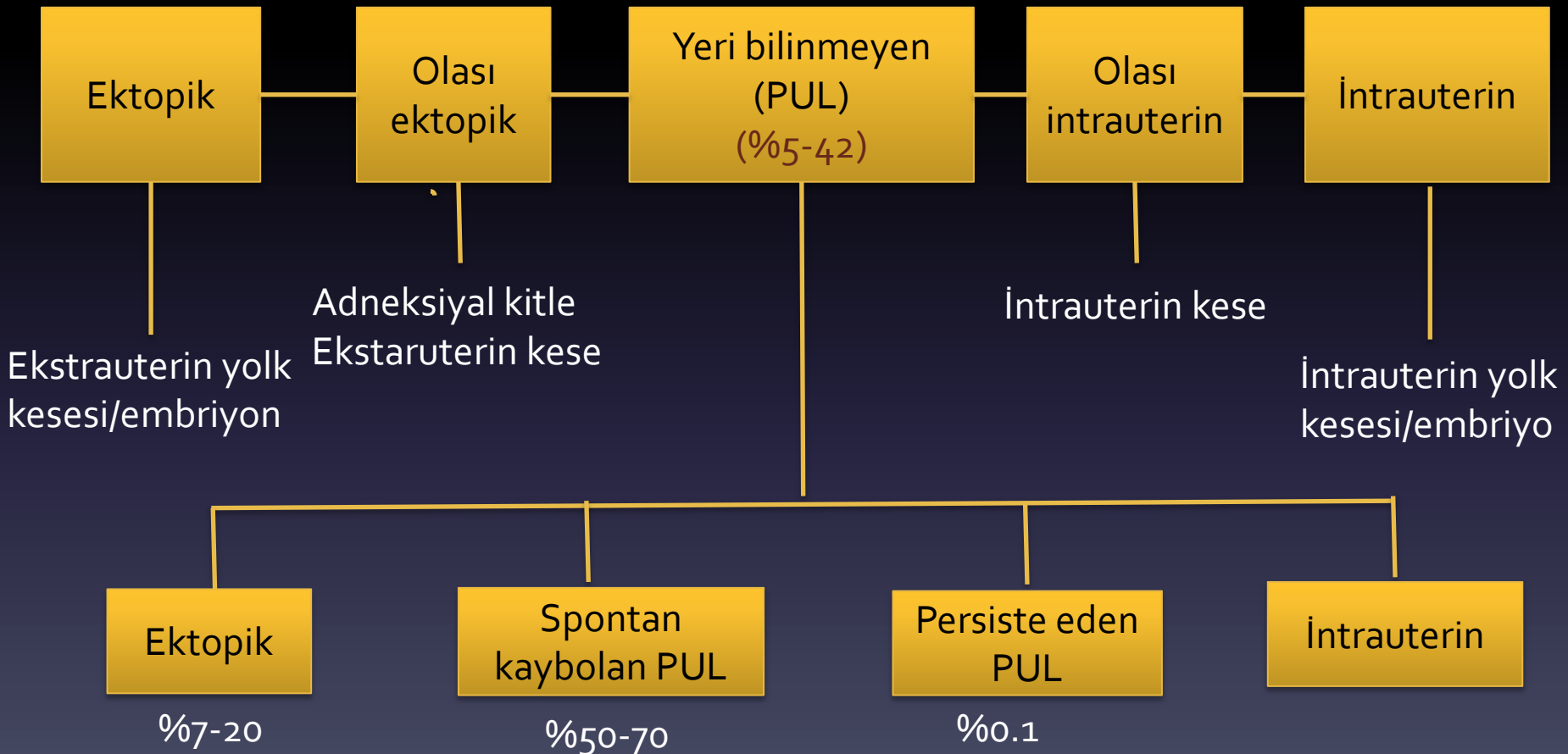
OKÇ ≥ 25 mm, yolk kesesi (-)

BPM ≥ 7 mm, FKA (-)

Bu sınırların altında 7-10 gün sonra kontrol

(Bickaus, Gynecology & Obstetrics, 2013)

Gebeliğin lokalizasyonu



(Banhart, Fertil Steril, 2011)

İntrauterin gebeliđi düşündüren endometriyal bulgular



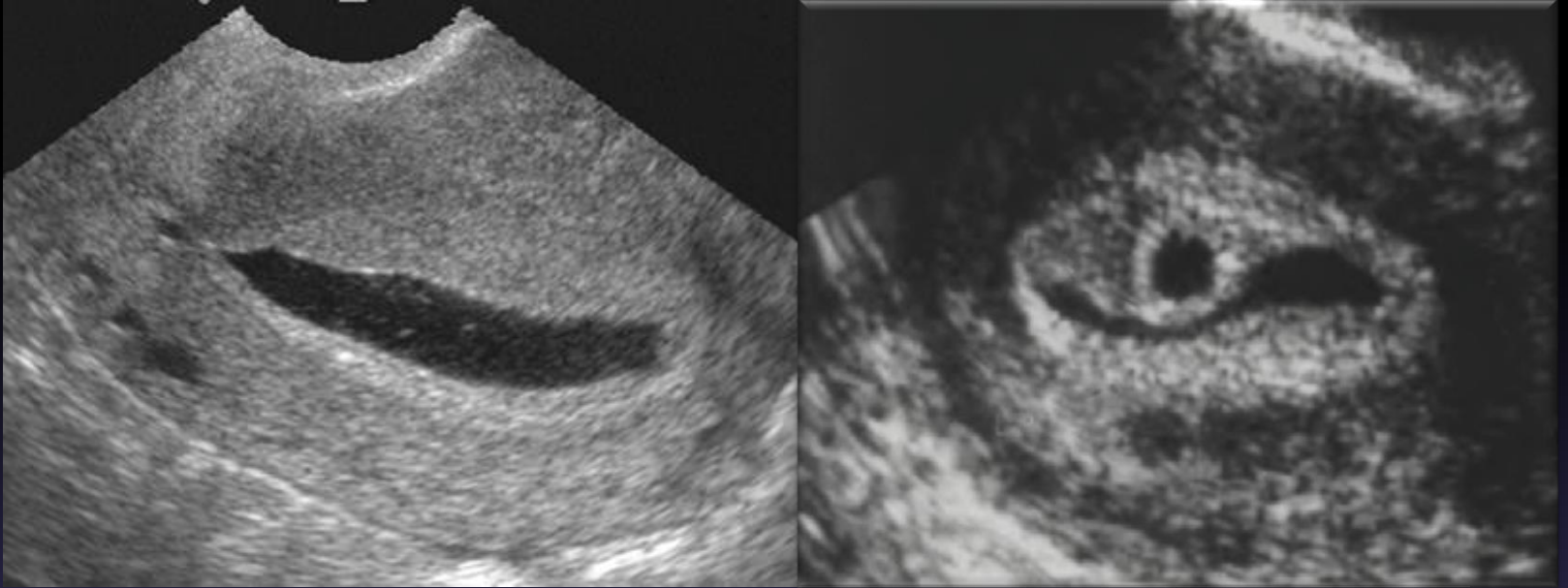
'İntradesidual sac' bulgusu



'Double decidual sac' bulgusu

Yolk kesesi kadar kesin deđiller
İntrauterin gebeliklerin %35-50'sinde görölmezler

Psödogestasyonel kese bulgusu



- Ektopik gebeliğin %10-20'sinde
- Kompleks görünümlü olabilir
- Şekil değiştirebilir
- Duvarı ince

First, Do No Harm . . . to Early Pregnancies

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Carol B. Benson, MD
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Simple arithmetic shows that fluid in the uterus in a woman with a positive pregnancy test is far more likely to be a gestational sac than a pseudogestational sac, even if it is not surrounded by two echogenic rings. The relevant data are: ectopic pregnancies constitute about 2% of all pregnancies (based on the most recent data from the Centers for Disease Control and Prevention¹⁶); the double sac sign appears in about half of early IUPs; and a pseudogestational sac appears in at most 10% of ectopic pregnancies. From these

Translating odds into probabilities: if a nonspecific intrauterine fluid collection is seen in a woman with a positive pregnancy test, the probability of it being a gestational sac is more than 99.5%, while that of a pseudogestational sac is less than 0.5%. The likelihood of a gestational sac

Gebelik kesesi ve β -hCG ilişkisi

%99- 3510 IU/L

Bir öneri stabil hastada 4300 IU/L

Sınır değer kullanmamak

Hastaya, ultrasona ve seri β -hCG takibine göre

(Hamza, Geburtshilfe Frauenheilkd, 2016)

Gebelik kesesi ve β -hCG ilişkisi

Doubling time: 1.4-2.1 gün

48 saate >%66 artış (Kadar, 1981)

24 saatte %24, 48 saatte >%53 (Banhart, 2004)

İNTRAUTERİN

48 saatte <%50 - %66

48 saatte <%53 (ACOG)

48 saatte <%35 (Seeber, 2006)

EKTOPIK

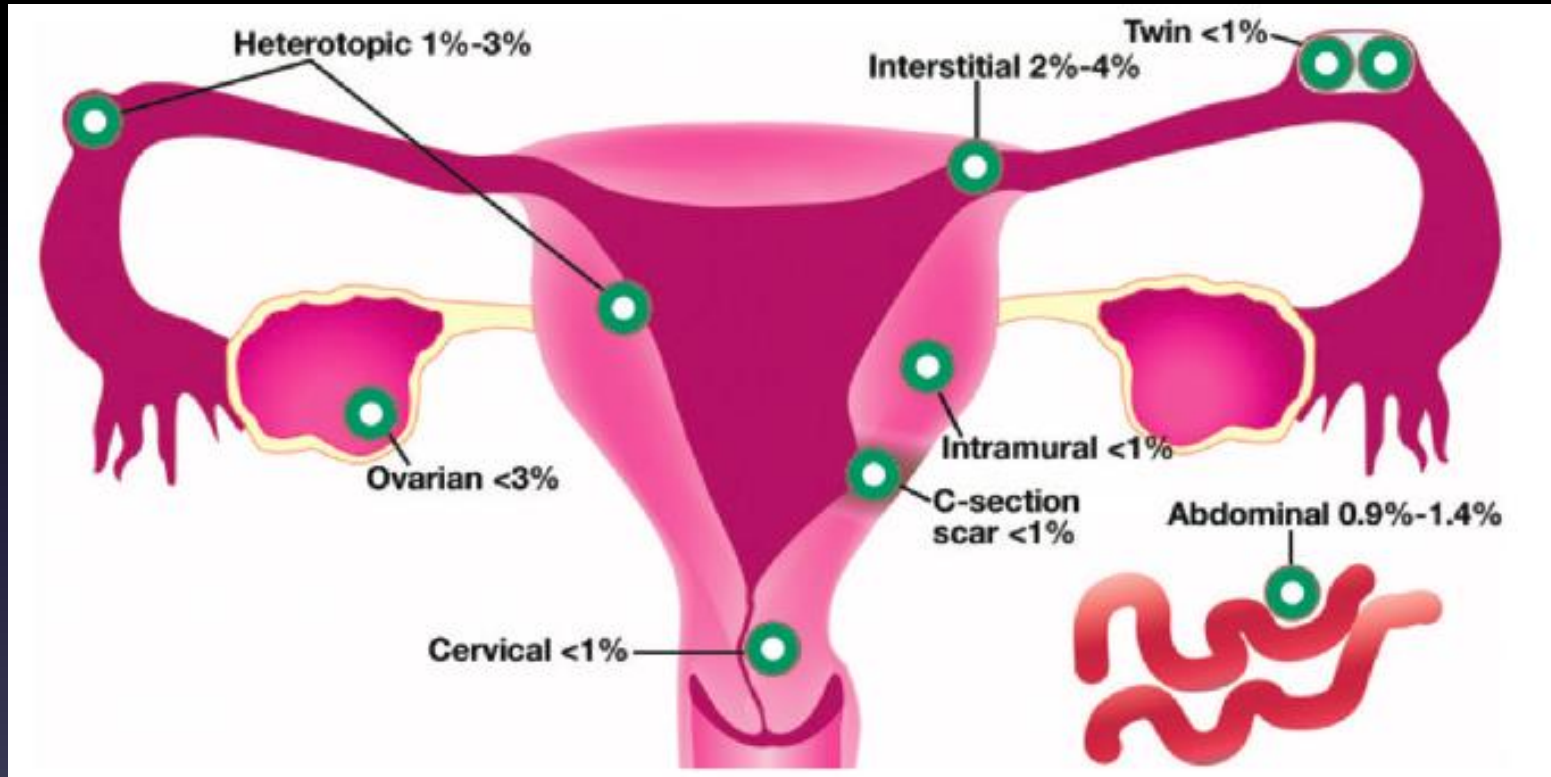
48 saatte >%13 düşüş

%92 sensitivite %96 spesifite

(Condous, 2006)

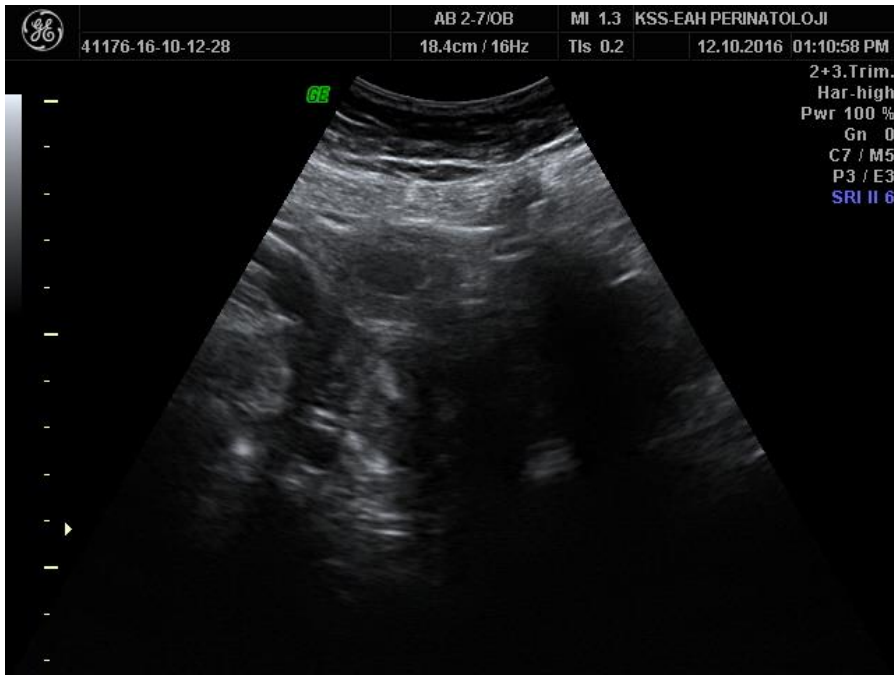
ABORTUS

Ektopik Gebelik



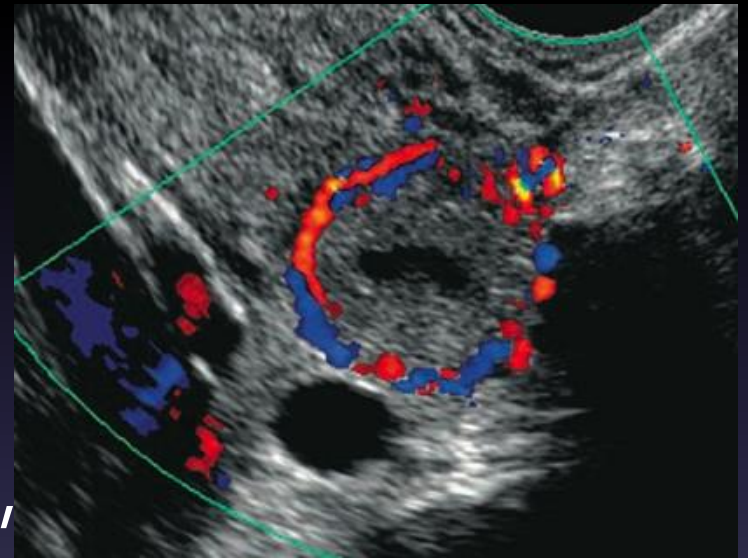
Tubal gebelik

- Non-kistik adneksiyal kitle (%87-100)
- 'Tubal ring'
- Ekstrauterin yolk kesesi/embriyo/kardiyak aktivite
- Douglasta ekojenik sıvı (%28-56)
- Psödo-gestasyonel kese (%10-20)



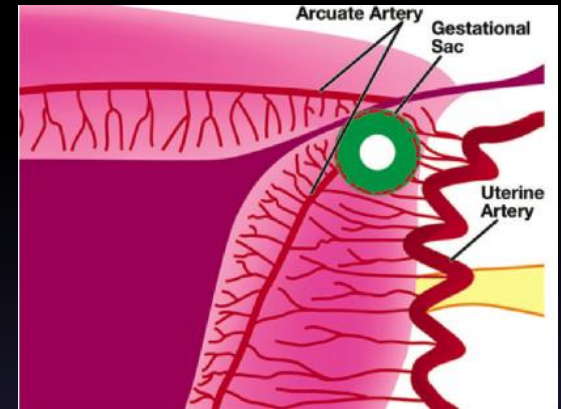
Ektopik gebelikte Doppler

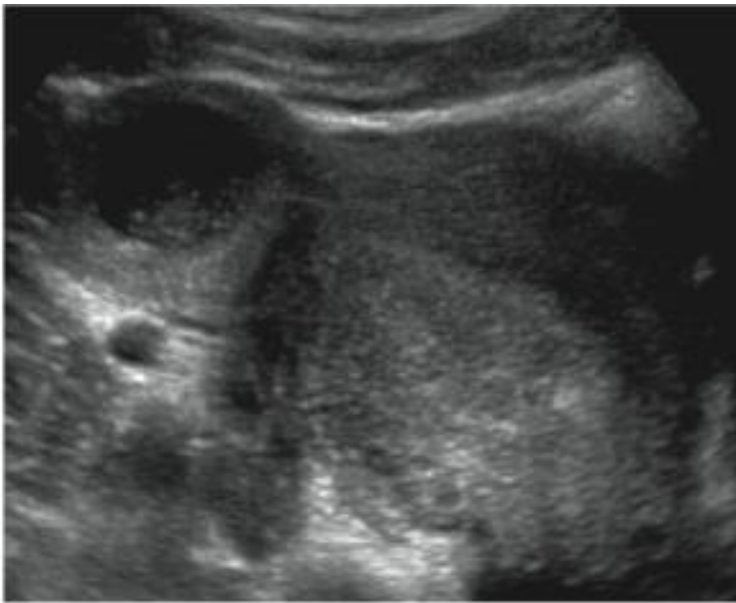
- Peritrofoblastik akım:
 - Yüksek amplitüdüli (>20 cm/sn), düşük dirençli akım ($PI < 1$)
 - 'Ring of fire'
- Spesifik değil (Korpus luteum, matür folikül)



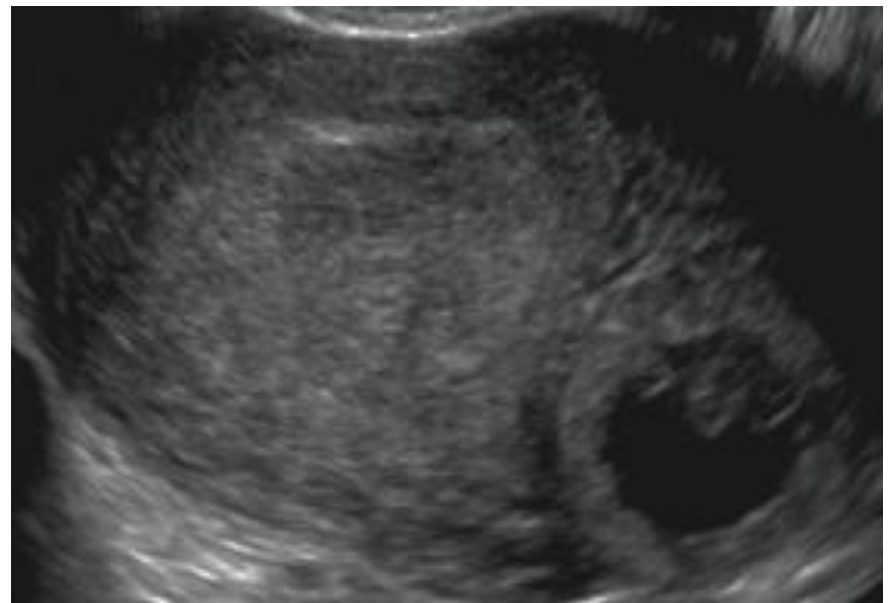
İnterstisiyal gebelik

- %2-4
- Uterusun en lateralinden >1 cm
- Myometrium < 5mm
- 3D veya MRI yardımcı

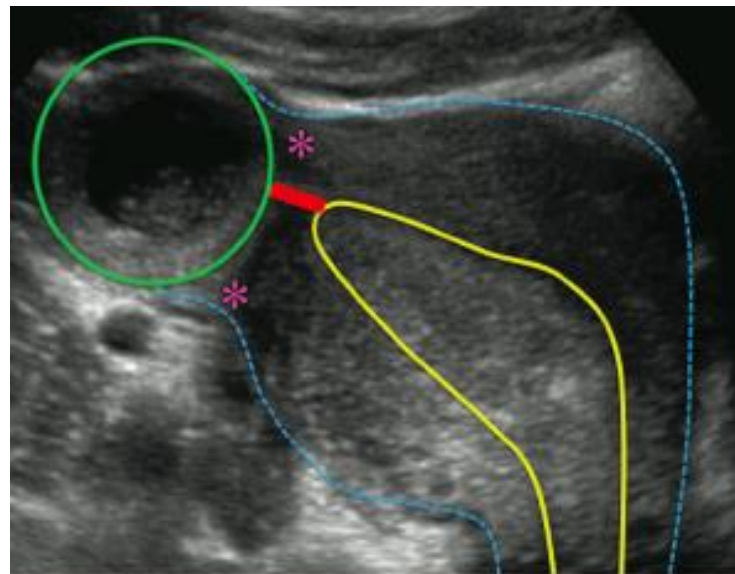




'Bulging'



'Myometrial mantle'

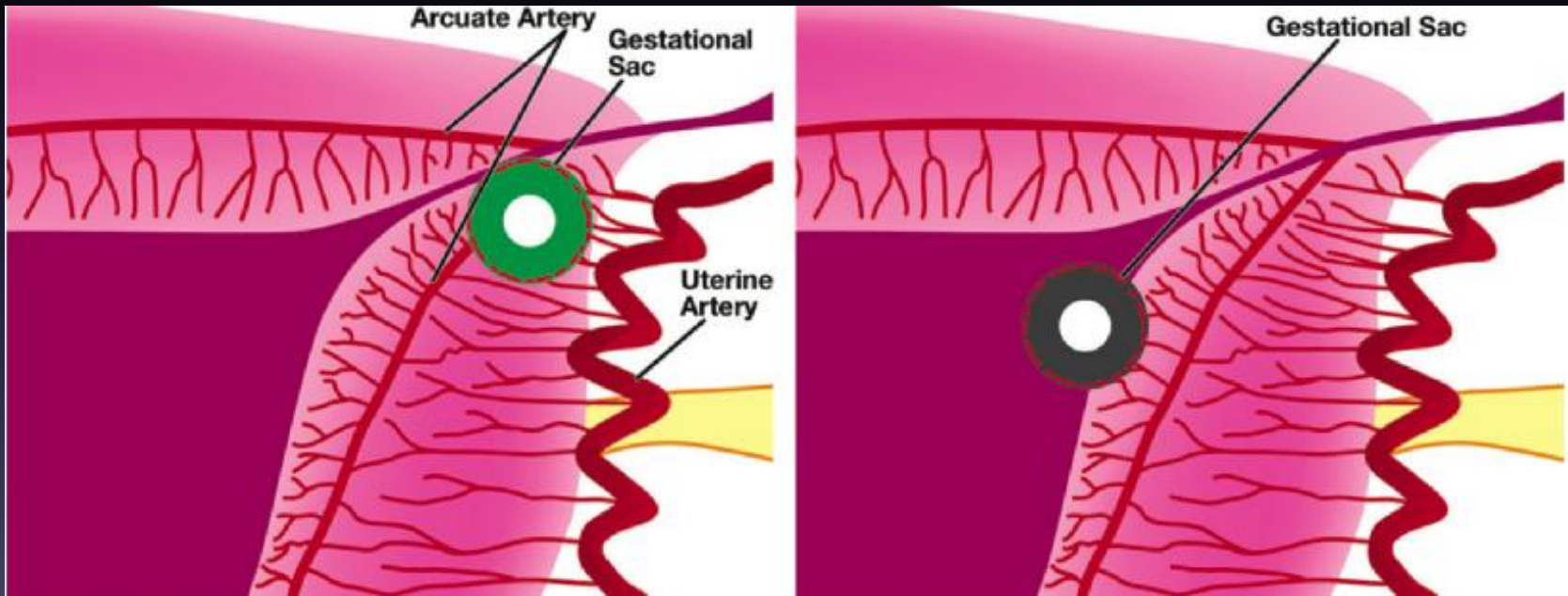


'Interstitial line'

(Chukus, Radiographics, 2014)

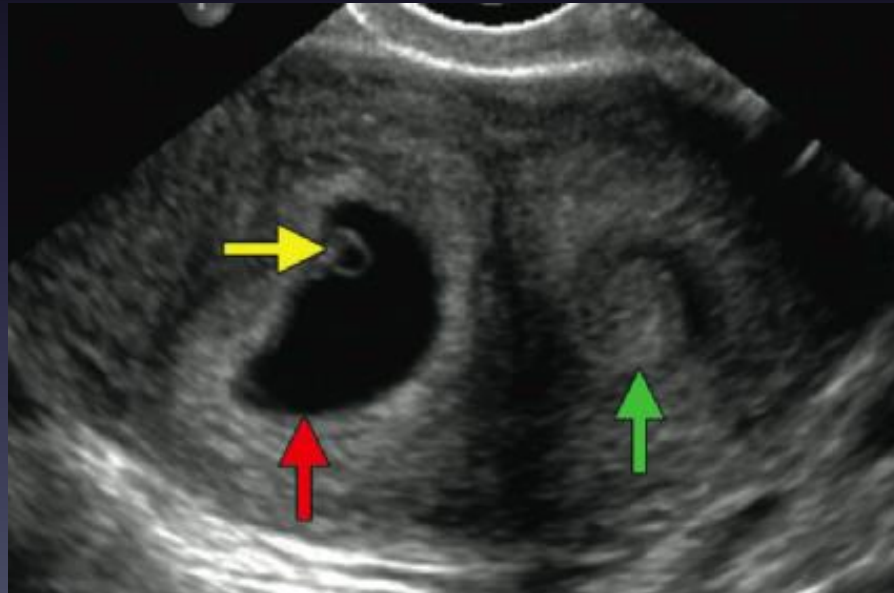
Ayırıcı tanı

Anguler gebelik



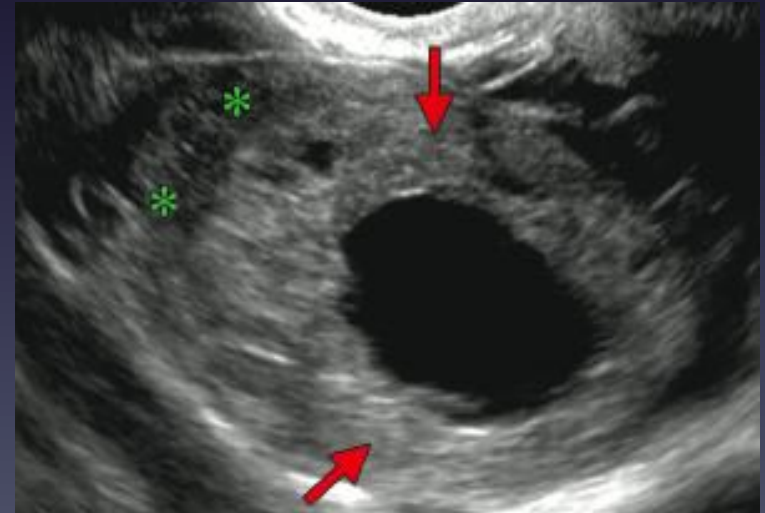
Ayırıcı tanı

Kornual gebelik (Bikornis, rudimenter horn, septum)



Ovaryan gebelik

- %0.5-%3
- Over dokusundan ayrılmayan kalın ve ekojenik duvarlı kese
- İntraovaryan yolk sak/FKA
- Peritofoblastik akım
- AT: Korpus luteum



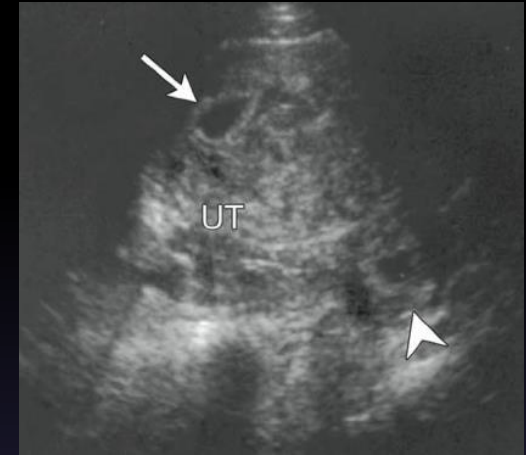
Abdominal gebelik

- %1.4
- Mesane ve boş uterus komşuluğunda fetal yapılar
- Fetusun etrafında myometrium yok
- Plasenta zor izleniyor
- Oligohidramnios
- AFP yüksek



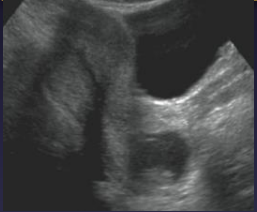
Heterotopik gebelik

- 1/3800, IVF'te 1/100
- İntrauterin gebelik + adneksiyal kitle/ekstrauterin yolk kesesi veya embriyo
- İntrauterin gebelikte mutlaka adnekslere de bakılmalı!



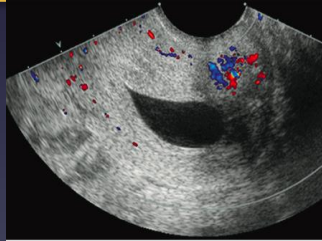
Alt segment yerleşimli gebelik kesesi

Servikal gebelik



İnternal osun altında
Ön duvar kalın

İnkomplet abortus



Düzensiz sınırlı
Sliding bulgusu

Viable gebelik



İnternal osun üstünde
Ön duvar kalın

Erken invazyon anomalisi



Kaviteyle ilişkili
Ön duvar ince

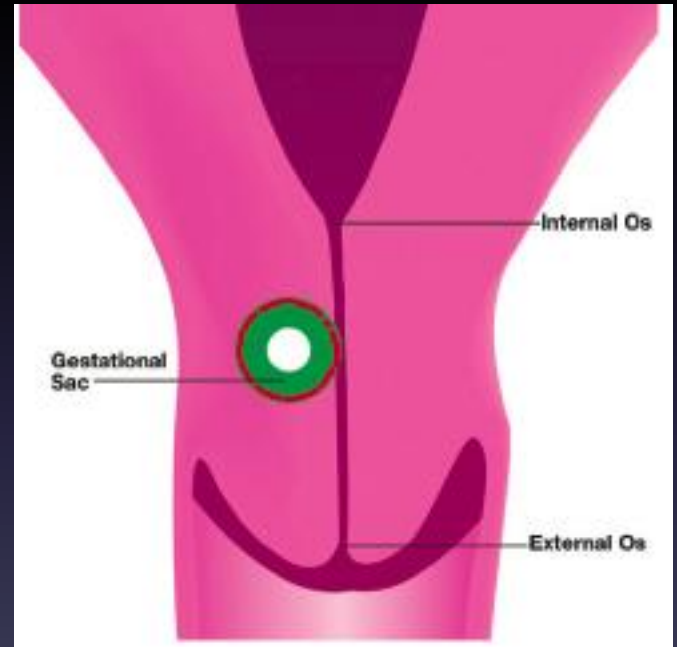
Skar gebeliği



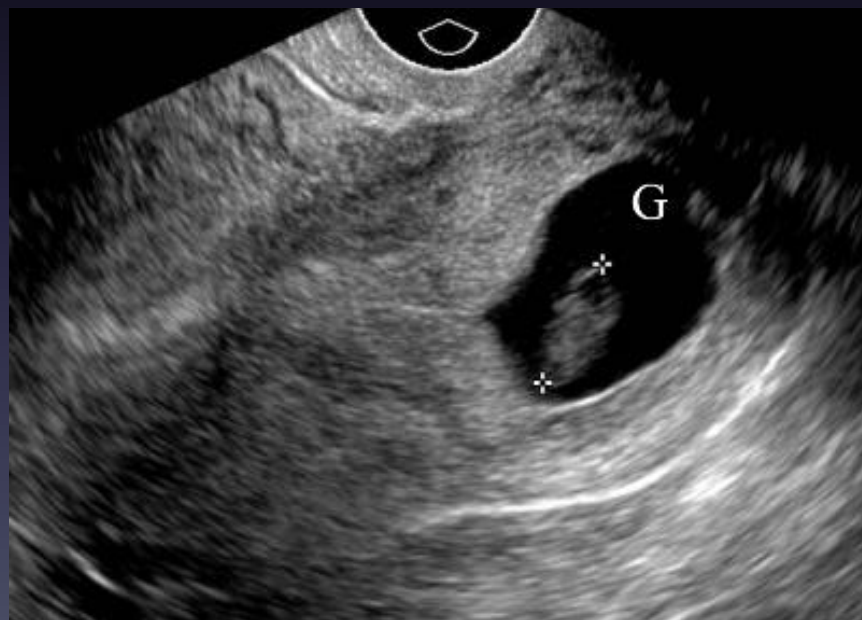
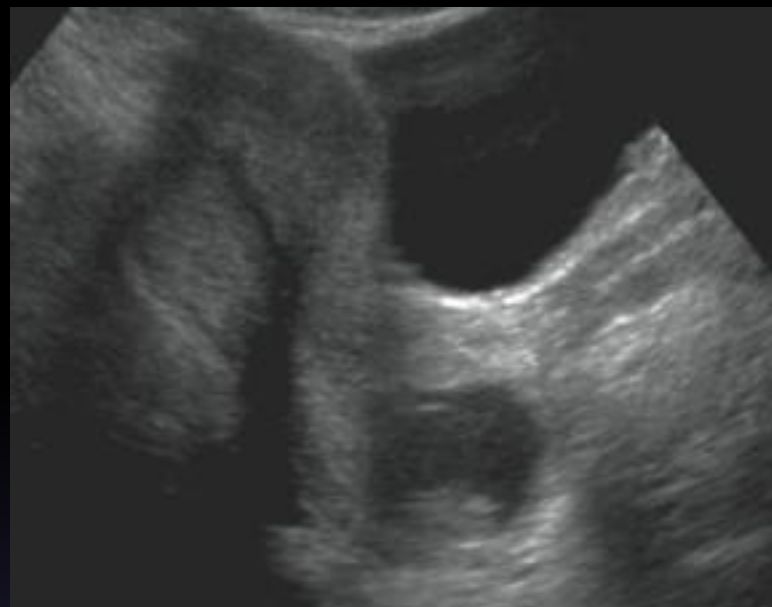
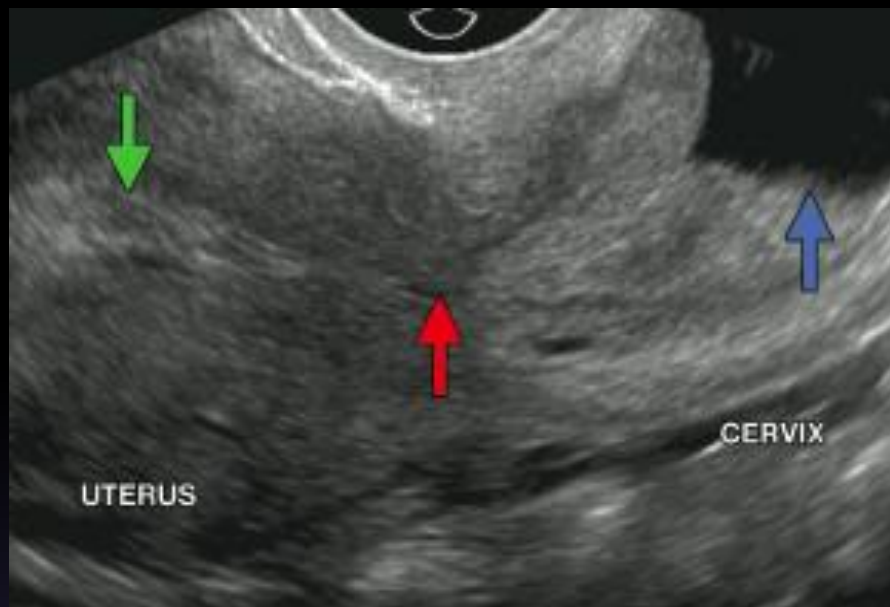
Kaviteyle ilişkisiz
Ön duvar ince

Servikal gebelik

- 1/9000, %1
- Kese endoservikstte
- **İnternal osun altında**
- İnternal os kapalı
- Serviks balonlaşmış
- Kum saati görünümü
- Endometrium düzenli

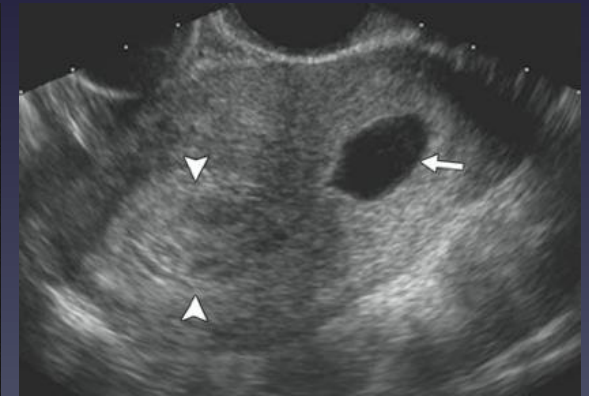
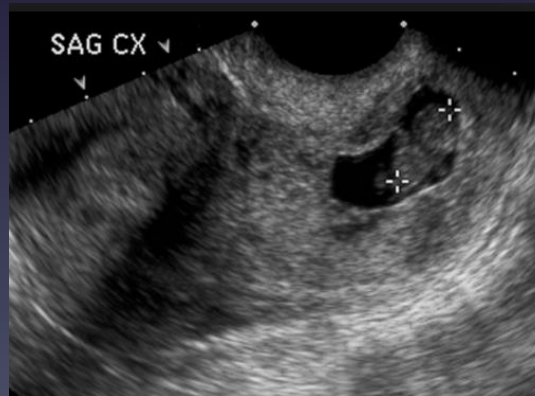


(Ghaneie, JUM, 2015)



	Servikal gebelik	İnkomplet abortus
Gebelik kesesi	Yuvarlak	Deforme, düzensiz
İnternal os	Kapalı	Açık
Fetal kardiyak aktivite	Var	Yok
'Sliding' bulgusu	Yok	Var
Fetal pol, yolk kesesi	Düzgün	Bozulmuş
Ekojenik halka	Var	Yok
Peritrofoblastik akım	Var	Yok
Endometriumda kan	Yok	Var
Uterusun şekli	Kum saati	Globuler

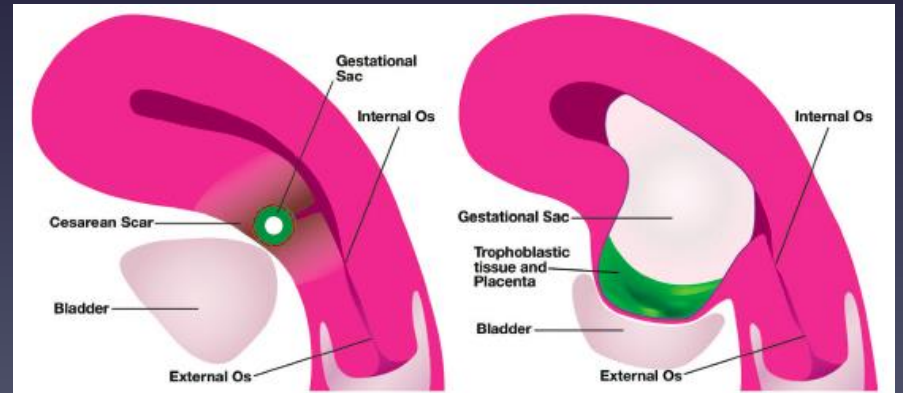
(Chukus, Radiohgraphics, 2014)

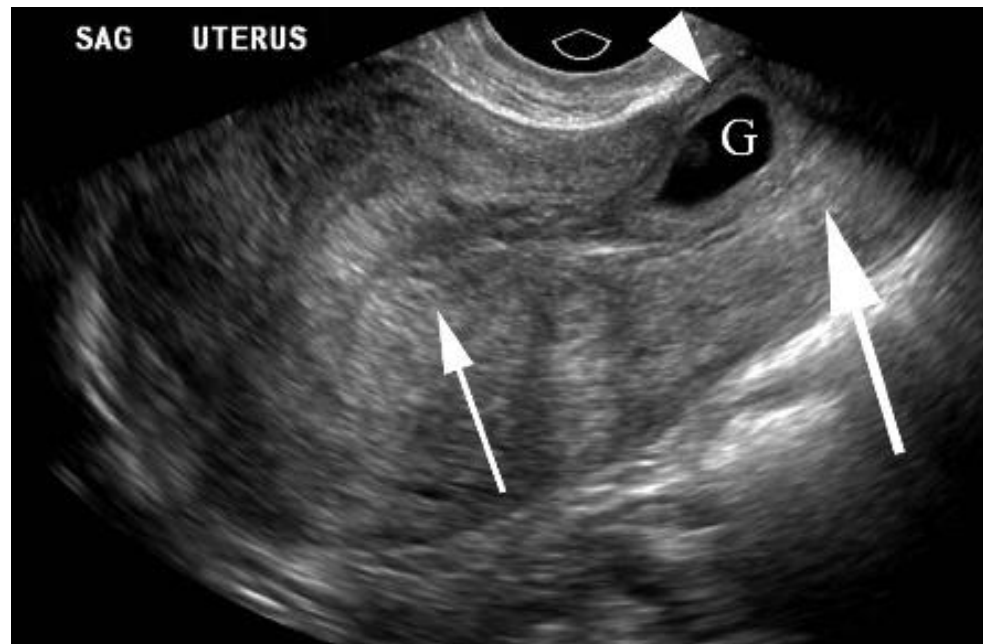
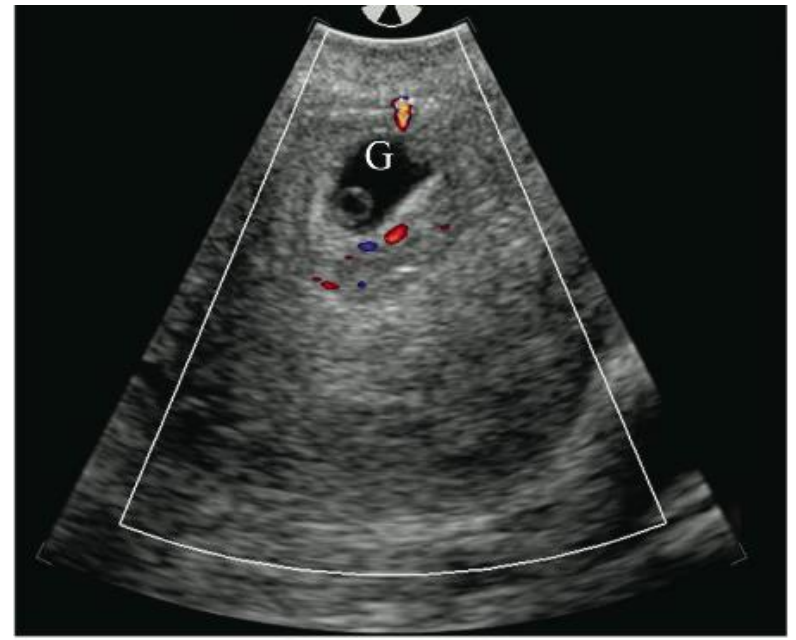


Sezaryen skar gebeliđi

- Ektopik gebeliklerin %1'i, C/S geirenlerde %6
- 1/2000
- Myometriuma gmlmř
- Endometriyal ve servikal kanal boř, kese ile iliřkisiz
- n duvar ince (<5 mm) veya kaybolmuř
- çgen řeklinde

(Ash, BJOG, 2007)





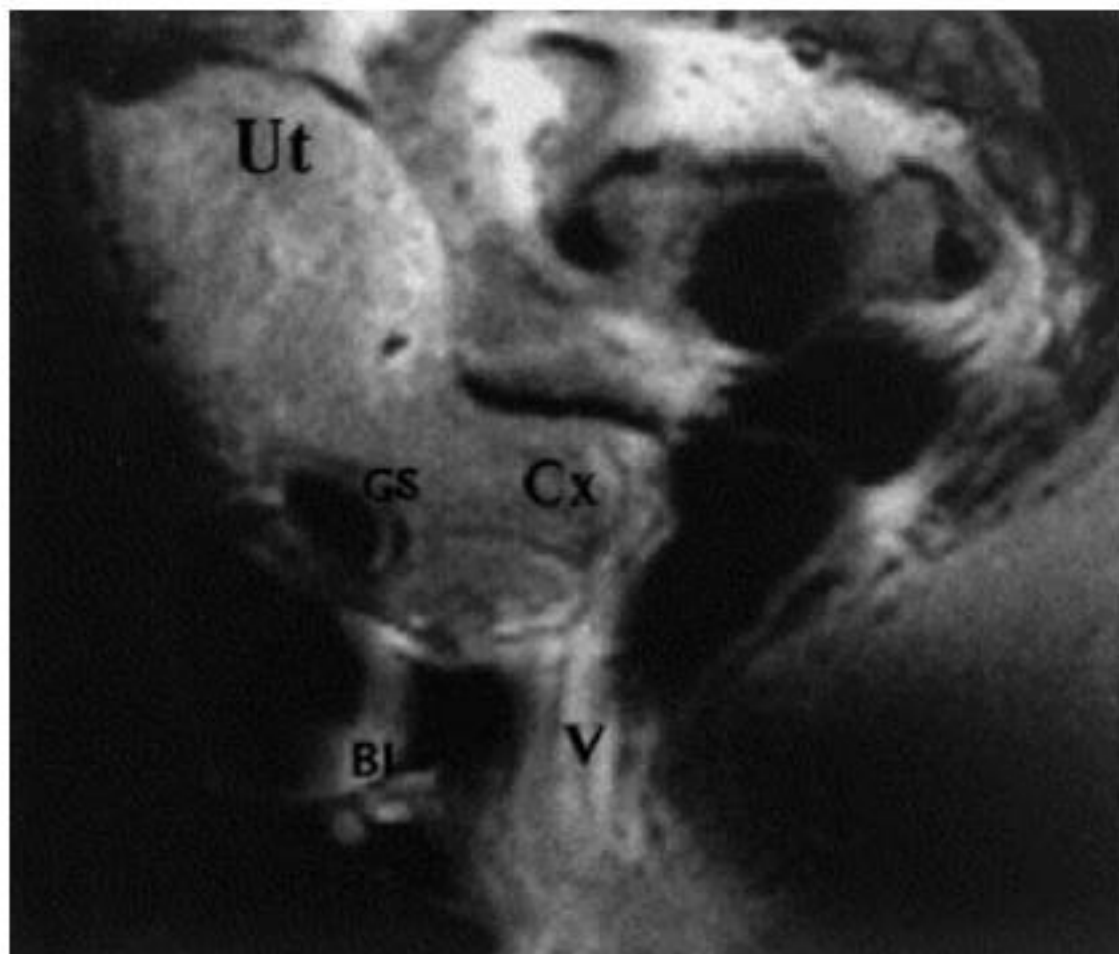


Figure 4. Magnetic resonance image shows implantation of a gestational sac in a caesarean section scar. Reprinted from Shufaro Y and Nadjari M. Implantation of a gestational sac in a caesarean section scar. *Fertil Steril* 2001;75:1217 with permission from American Society for Reproductive Medicine.

Antenatal diagnosis of placenta accreta: a review

C. H. COMSTOCK

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Cesarean scar pregnancy is a precursor of morbidly adherent placenta

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Cesarean scar pregnancy and early placenta accreta share common histology

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Table 1 Demographic data of 10 cases of cesarean scar pregnancy (CSP) who continued the pregnancy

Case	Previous CD (n)	Age (years)
1	1	4
2	1	2
3	1	3
4	1	3
5	2	4
6	1	3
7	2	3
8	1	3
9	1	4
10	1	2

proof of its efficacy is required. If an anteriorly attached, low-lying early gestation (with or without heart activity) is identified, it should be considered as a CSP until proved otherwise by ruling out a cervical pregnancy and a miscarriage in progress. If a CSP is diagnosed, the patient can be given the option of terminating or continuing the pregnancy. If the latter is chosen, they should be advised that their chances of achieving the desired delivery (usually premature) of live offspring should be weighed against the significantly high risks of premature delivery, hysterectomy and permanent loss of fertility, and particularly the risks of uterine rupture, massive blood loss, shock and even death.

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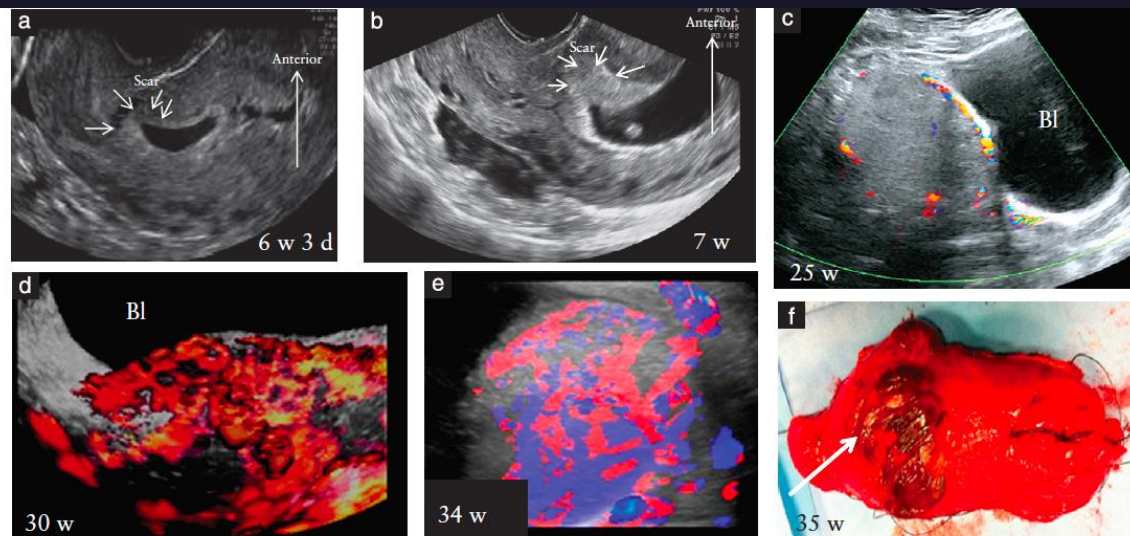


Figure 1 Case 1. (a,b) Gray-scale ultrasound images of Cesarean scar pregnancy at 6 +3 weeks (a) and 7 weeks (b), with placental implantation on the scar indicated (small arrows). (c,d,e) Color Doppler imaging at 25 weeks (c), 30 weeks (d) and 34 weeks (e) was consistent with a morbidly adherent placenta. (f) The uterus, excised at 35 weeks, with the area of placental insertion indicated (arrow); histology was consistent with percreta. Bl, bladder.

