RADYOLOJİ KIŞ OKULU 2019

4 -10 Şubat 2019

Mirage Park Otel, Antalya

TRD 1924

BÖBREĞİN KİSTİK HASTALIKLARI VE SINIFLAMA SİSTEMİ

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Dokuz Eylül Üniversitesi Tıp Fakültesi
Radyoloji Anabilim Dalı

Sunum Planı

I. Böbreğin kistik hastalıklarının ayırıcı tanısına yaklaşım

II. Güncel Bosniak sınıflaması

III. Cerrahi tedavi uygulanacak ve izlem yapılacak hastaların ayrımı

IV. Kistik renal kitlelerin radyolojik bulguları

Böbreğin Kistik Hastalıkları

- Böbrek kistleri, böbreğin görüntüleme yöntemleri ile **en sık saptanan rastlantısal** lezyonlardır.
- Çoğunlukla benigndir.
- Tüm malign renal kitlelerin % 10 (% 4-15)' u kistik yapıdadır.

Berlan II et al, J Am Call Radiol 2010 - Smith AD et al, Radiology, 2012

Böbreğin Kistik Hastalıkları

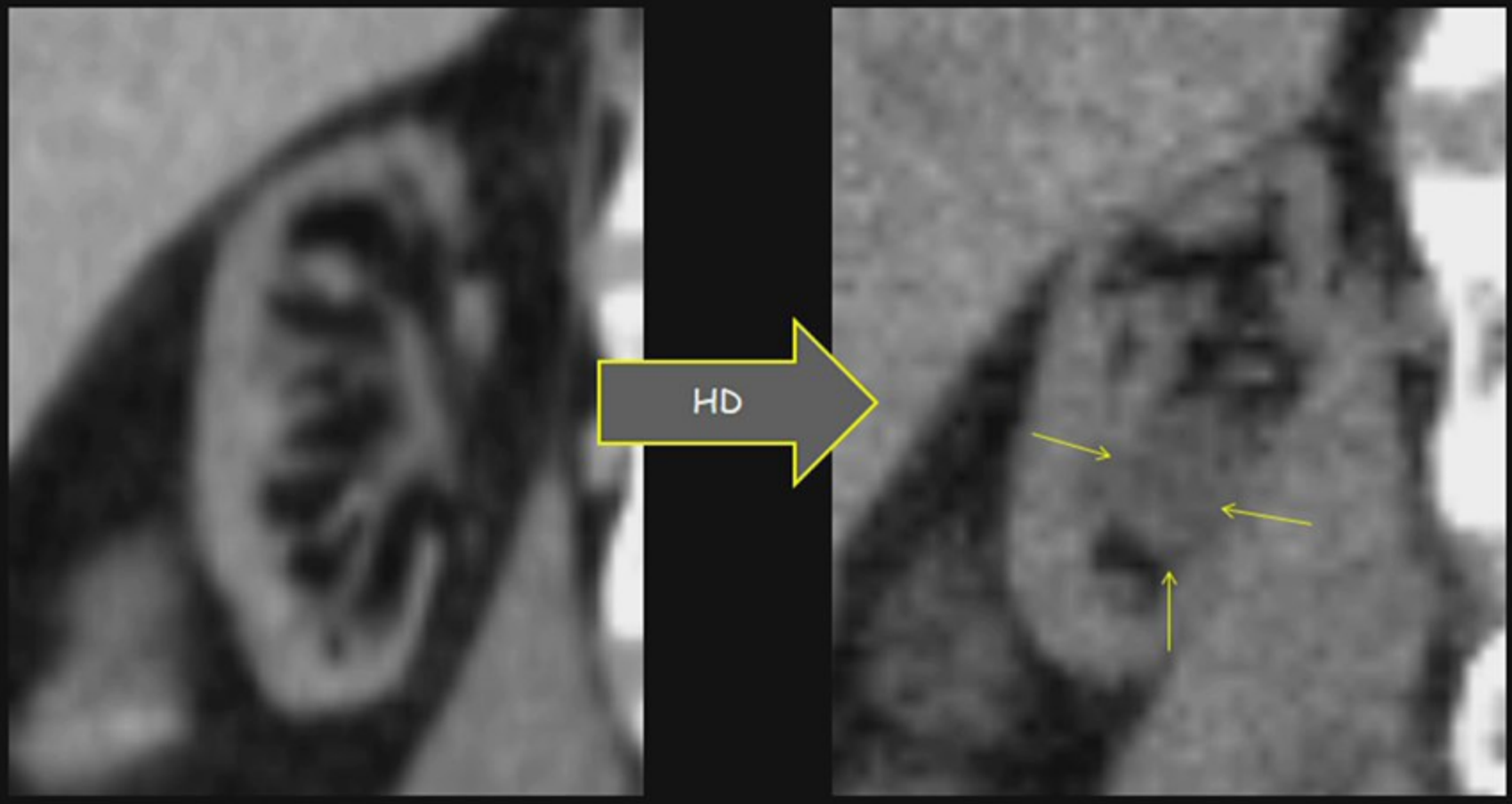
1. Basit kistler, renal sinüs kitleri
2. Edinsel kistler (Diyaliz)
3. Polikistik böbrek hastalığı
4. Displastik böbrek
   i. Multikistik displastik böbrek
   ii. Hipoplastik displastik böbrek
   iii. Alt üriner obst. bağlı displazi
   iv. Segmental displazi
5. Juvenil Nefrofitizis
6. Kalikseal divertikül
7. Medüller kistik böbrek hastalık
8. Medüller sünger böbrek
9. Herediter sendromlara eşlik eden böbrek kistleri
10. Enfeksiyon/Enfestasyonlar

11. Lokalize renal kistik hastalık
12. Kistik neoplaziler
    i. Multiloküler kistik nefroma
    ii. Kistik berrak hücreli karsinom
    iii. Multiloküler kistik renal hücreli karsinom

Edinsel Renal Kistik Hastalık

- Son dönem böbrek yetmezliği olan, uzun dönem diyaliz almış hastalarda
- Serum kreatinin > 1,6 mg/dL
- Görülme sıklığı: %40-90
- Nedeni tam olarak bilinmiyor.
- Bilateral, küçük, çok sayıda, ince duvarlı kistler; kanama +/-
- Tümör gelişimi - %5-25

  - Renal kortikal adenom / papiller tip RCC
- Hastalık malignite için risk taşır!!
- Kuşukulu lezyonlar – MRG (Bosniak kriterleri uygulanır.)



C(-) 2009

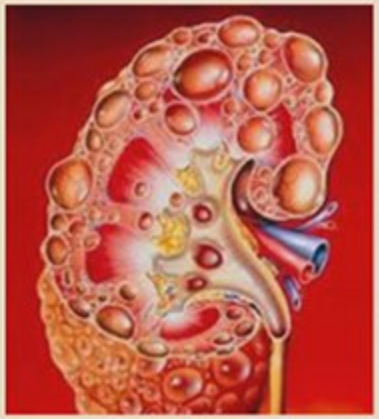
C(-) 2016

Polikistik Böbrek Hastalığı ODPKBH

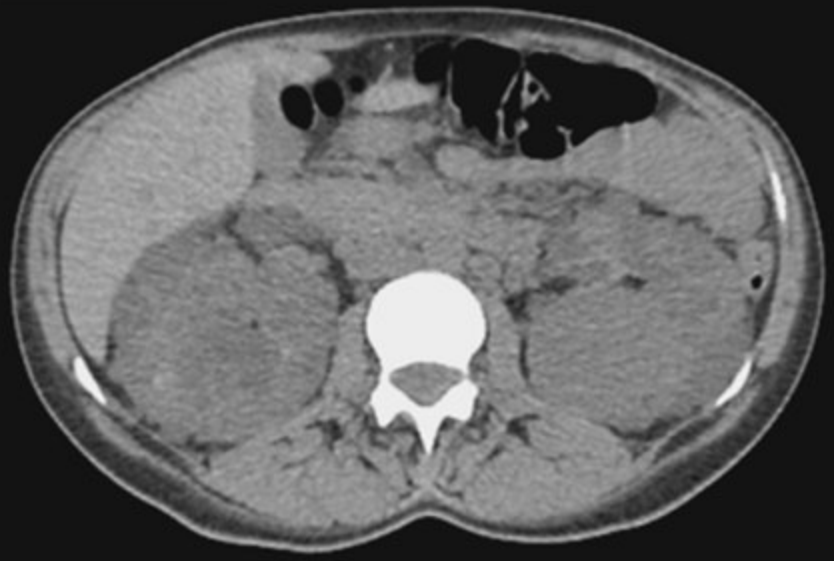
- Genetik geçişli kistik böbrek hastalıkları arasında en sık görülenlerdendir.
- Görülme sıklığı: 1/500-1/1000
- Başlangıçta normal olan böbreklerde boyut artışı, çok sayıda kist ve arada kalan zamanla parankimde kayıp
- Tip 1 –PKD1 (Kromozom 16) Polisistin 1
- Tip 2 –PKD2 (Kromozom 4) Polisistin 2

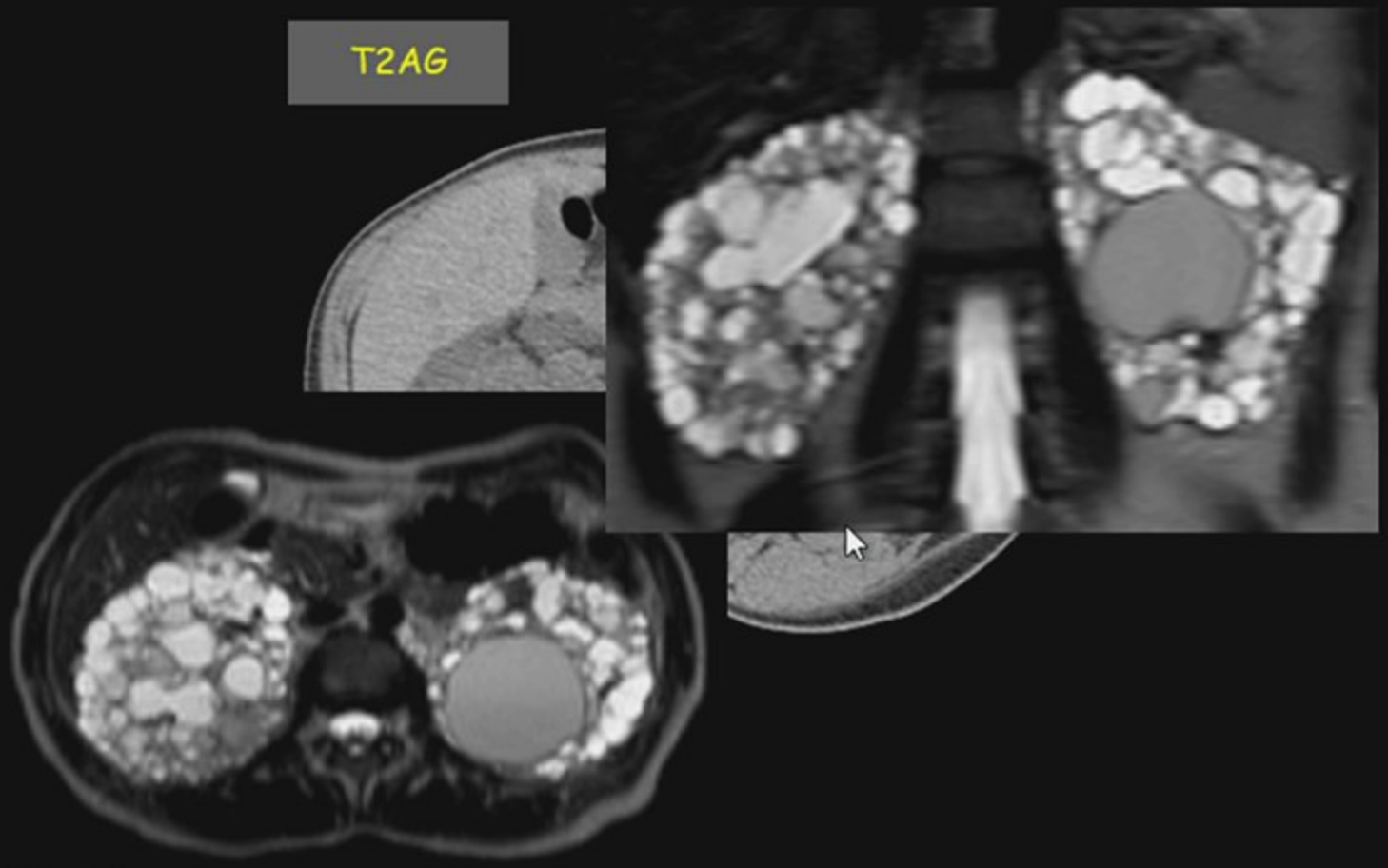
⇨ Siliyer disfonsiyon ⇨ Böbrek kistleri

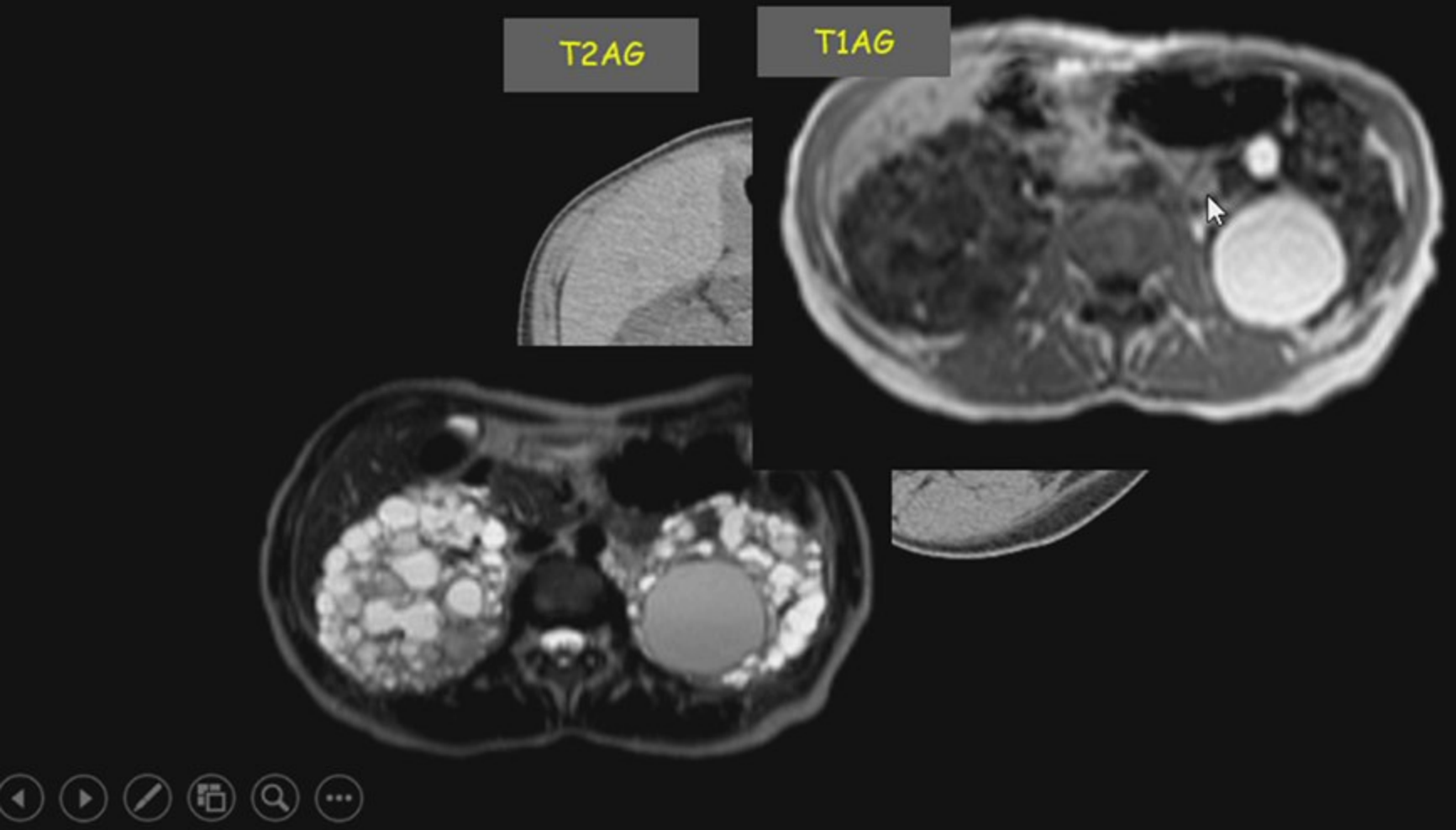
- Bilateral, boyutu değişken, çok sayıda kist
- Kanama
- Tümör gelişimi
- Karaciğer (%30-75) ve pankreas kistleri (nadir)
- Aort anevrizması, serebral anevrizma (%10-30)

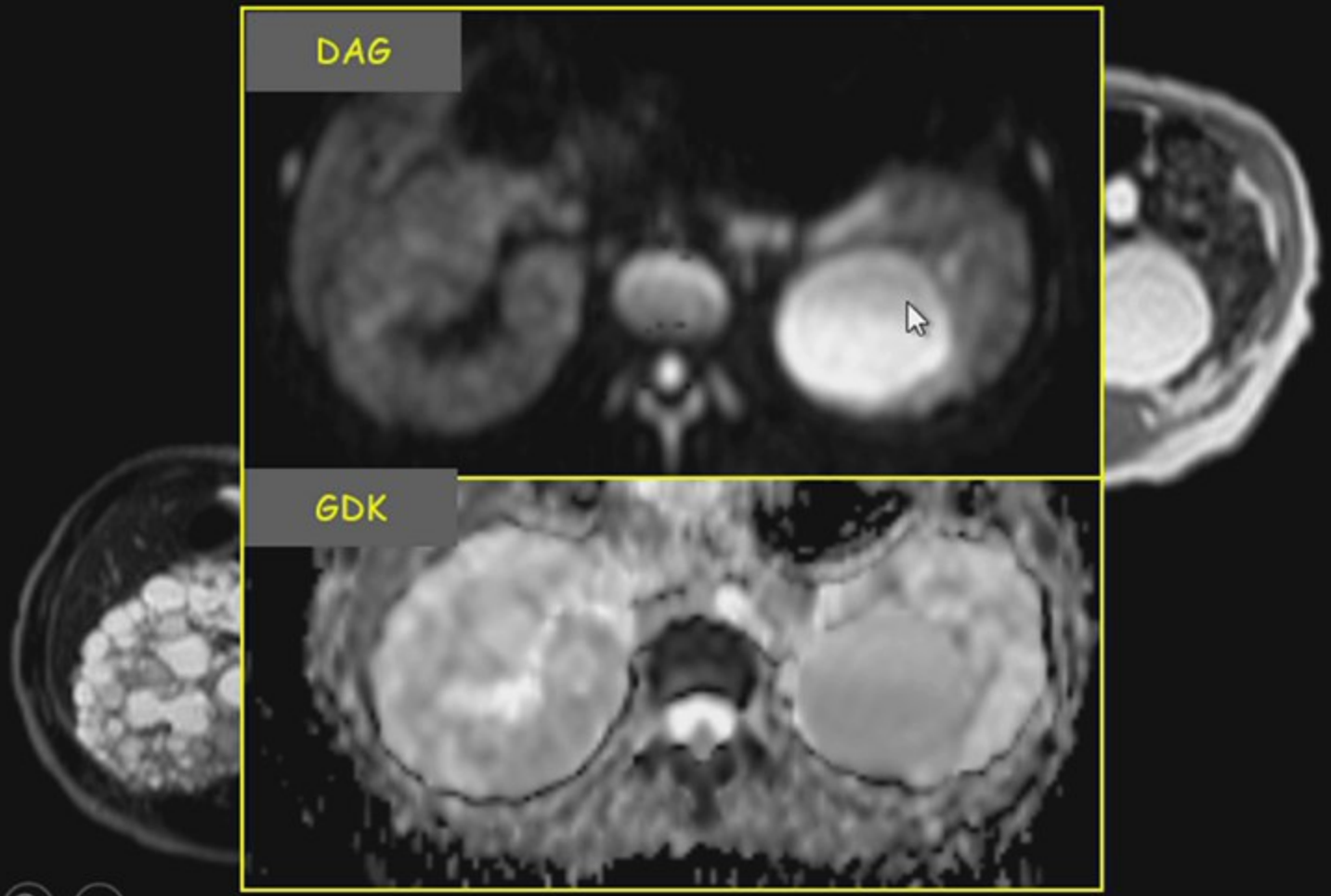


C(-) BT

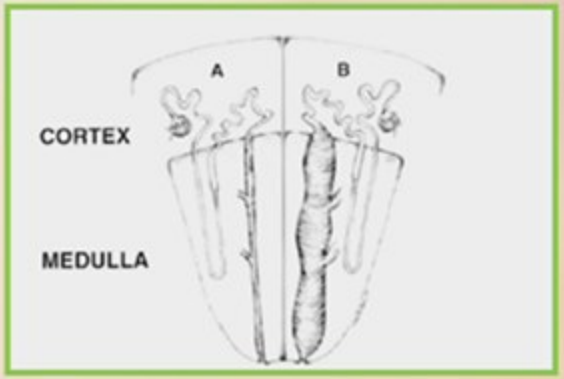



T2AG


T2AG
T1AG


DAG
GDK

Polikistik Böbrek Hastalığı ORPKBH



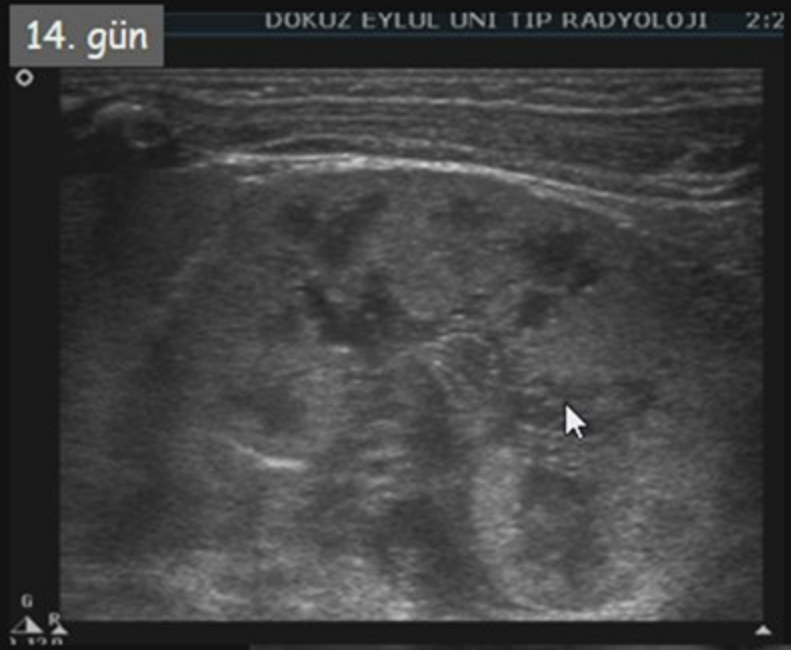
- Böbreklerin toplayıcı tubuluslarının ektazisidir.
- Görülme sıklığı: 1/20.000 - 50.000
- Kromozom 6p21 - OR
- Dört klinik alt-tip tanımlanmıştır;
  - Perinatal tip - en sık
    - Oligohidramnios - pulmoner hipoplazi
    - İlk 24 saatte ölüm
  - Neonatal tip
  - İnfantil tip
  - Juvenil tip (Hepatik fibrozis ++)
- Hepatik biliyer duktal ektazi, biliyer kistik değişiklikler, Portal HT
- Hepatik fibrozis

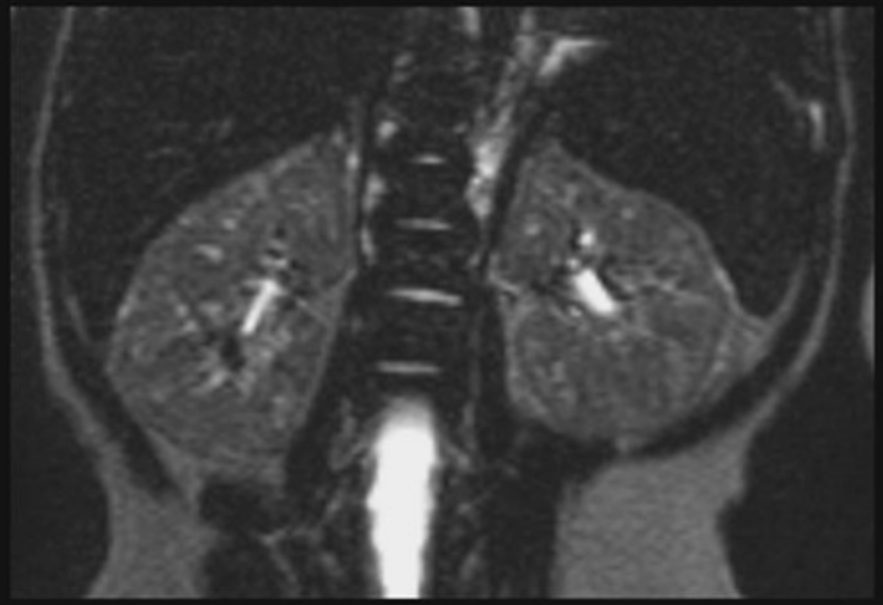
US;

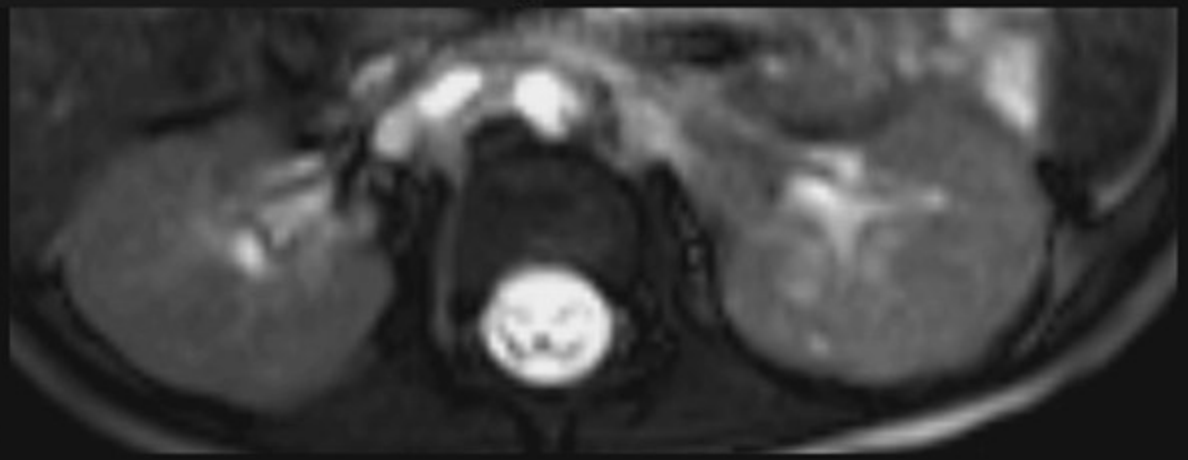
- Büyük ve ekojen böbrekler
- Piramislerde ekojenite artışı
  (Başlangıçta normal)
- Sayısız mikrokist (MAKROKİST YOK)
- Zamanla korteks - medulla ayrımı bozulur

Lonergan et al, Otosomal Resesive Polycystic Kidney Disease, Radiographics 2000; 20:837-855

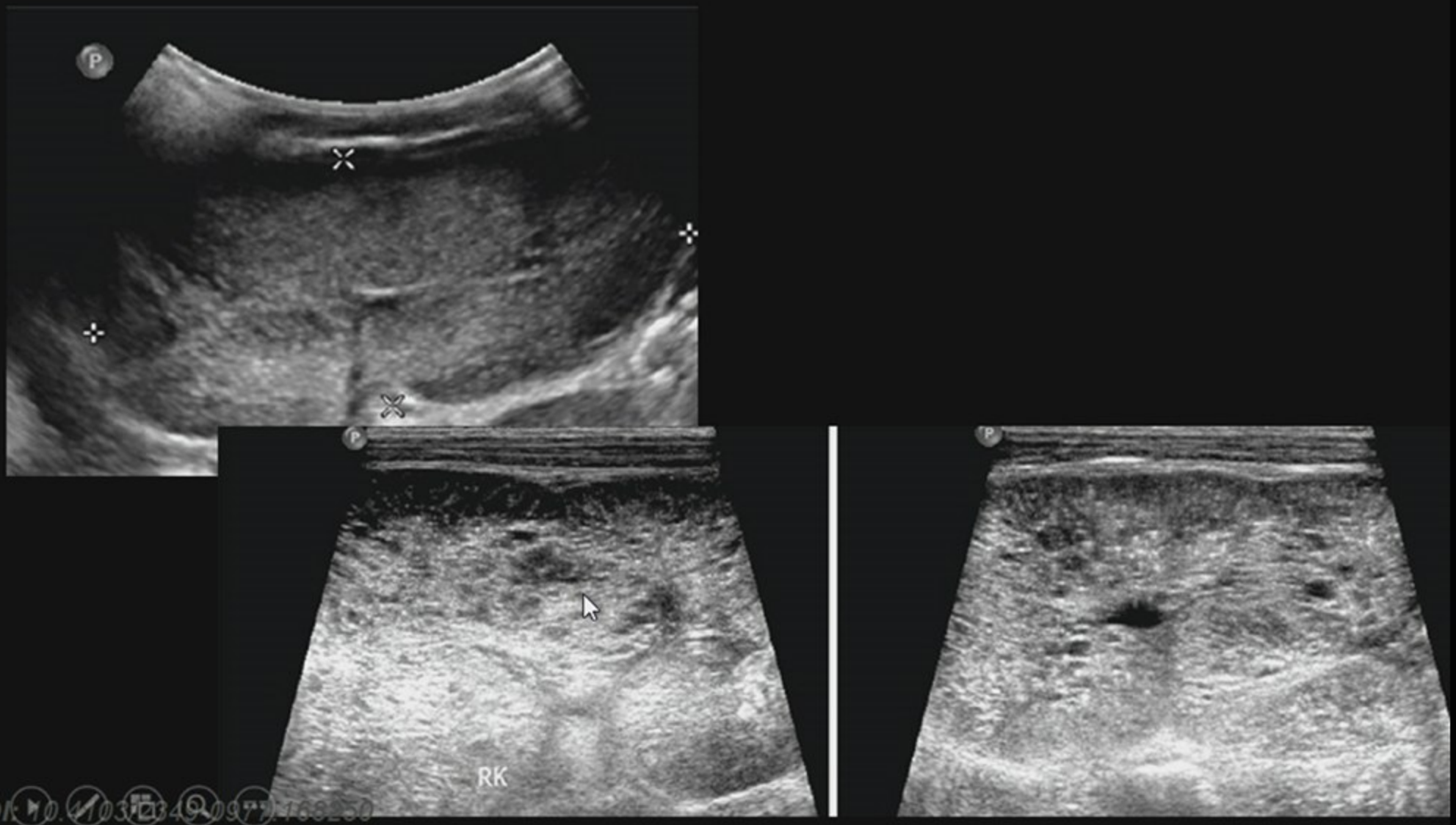
14. gün







2 y, K, ORPKBH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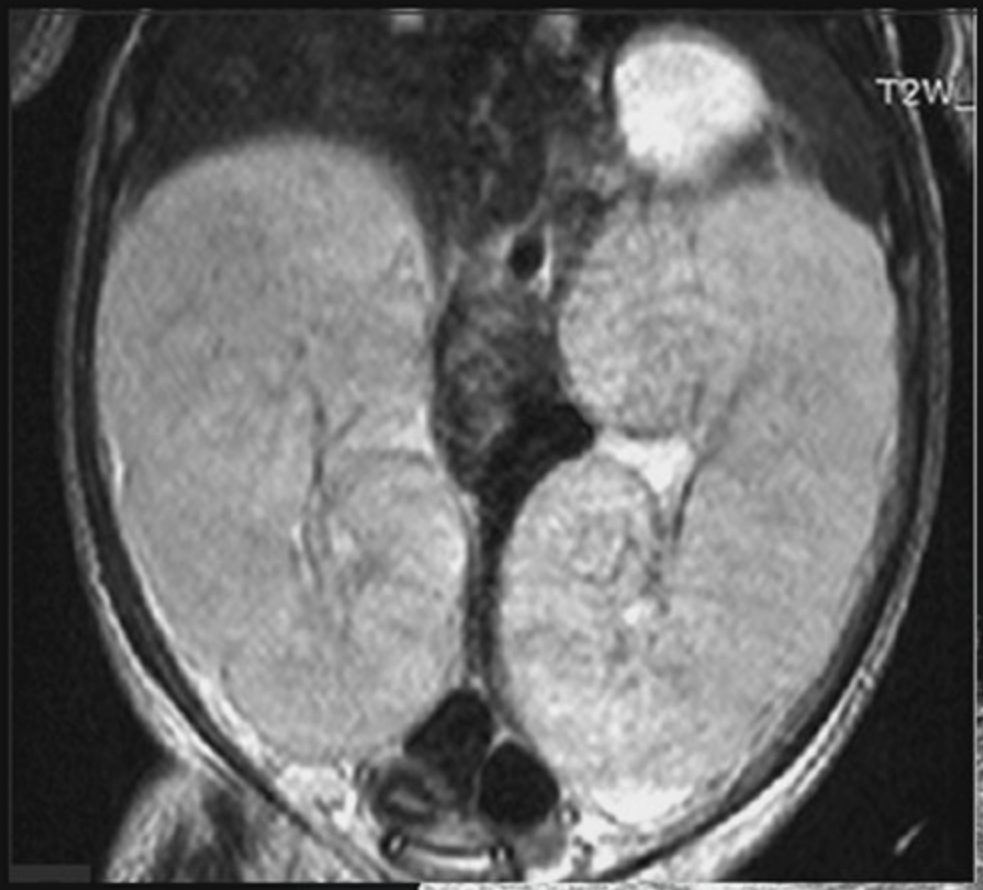
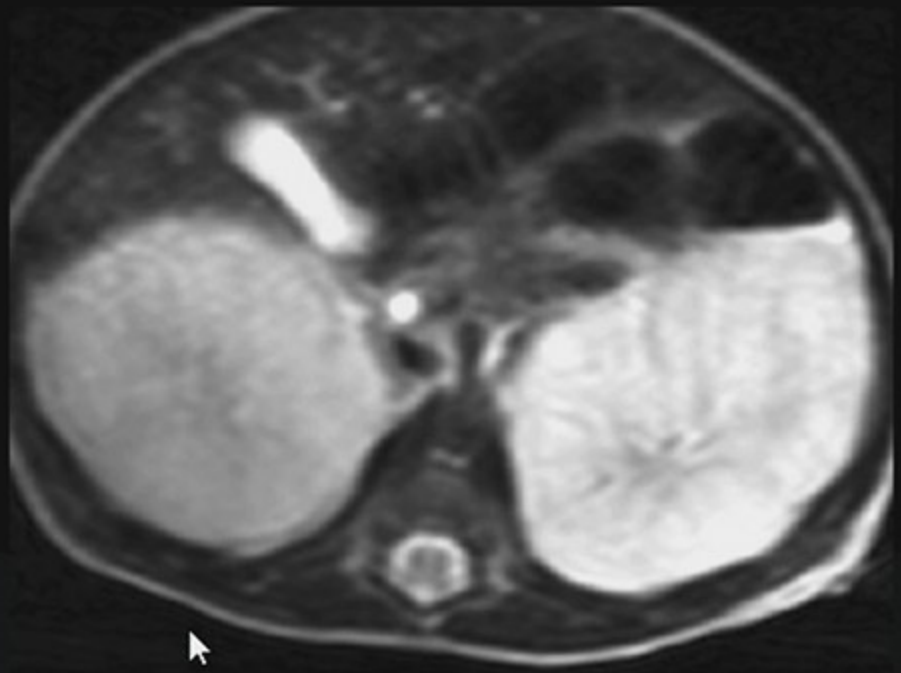
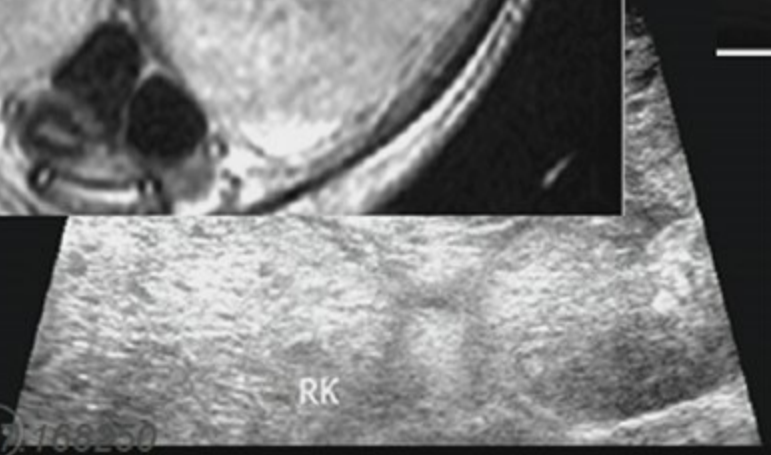

T2W

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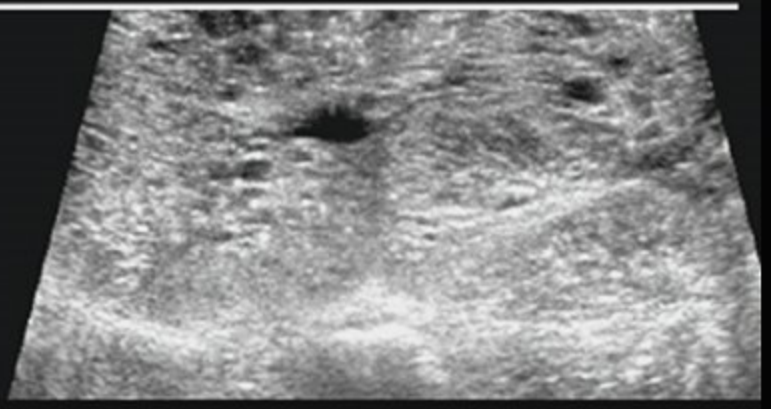
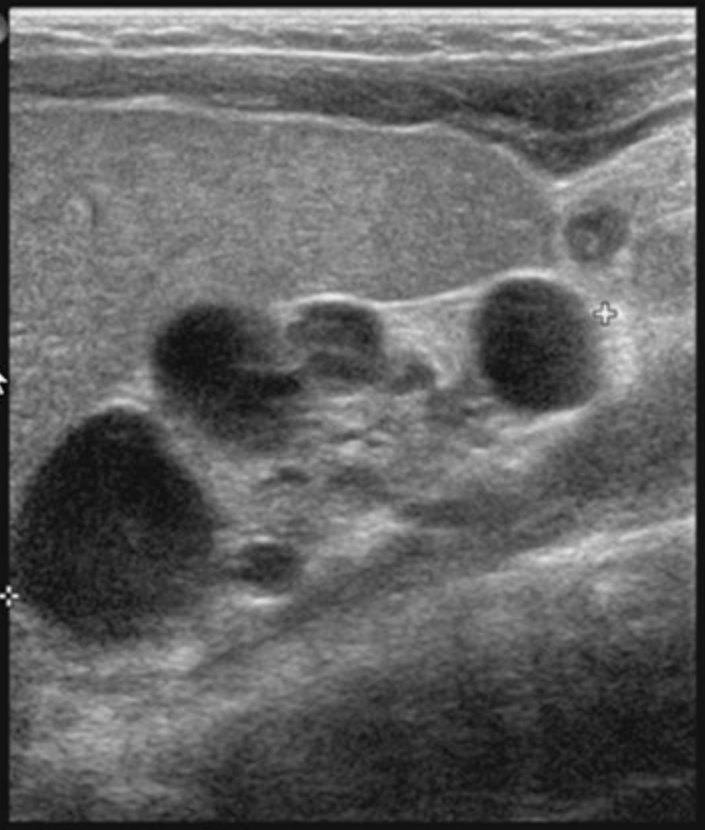
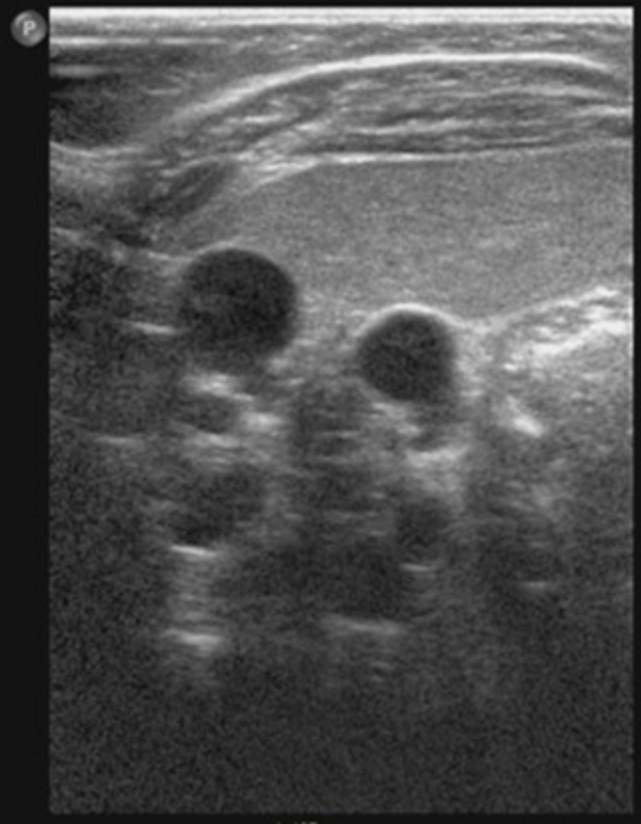


Multikistik Displastik böbrek

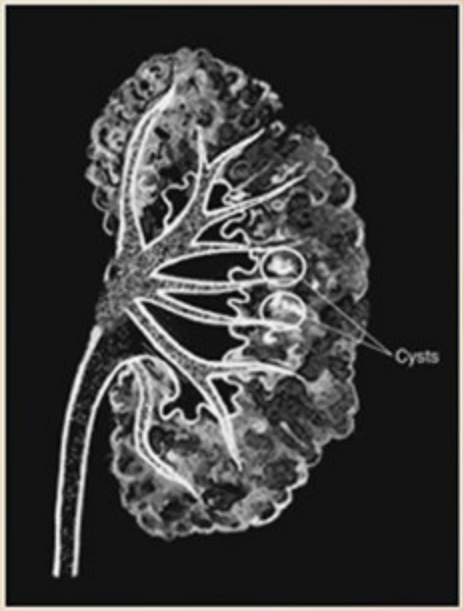
- Değişken boyutlarda çok sayıda böbrek kisti
- Arada normal böbrek parankimi yoktur ya da çok azdır
- Çoğunlukla tek taraf, solda ve erkeklerde
- Etiyoloji;
  - Erken fetal hayatta üreteral obstrüksiyon
  - Üreter tomurcuğu ile metanefrik blastemin indüksiyon aşamasında kesinti
- Görülme sıklığı: 1/2500 - 4000

Multikistik Displastik böbrek





Medüller Sünger Böbrek

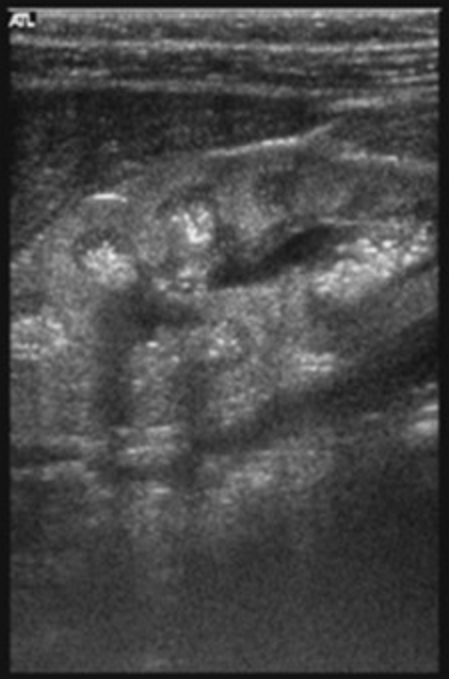


- Toplayıcı kanalların tübüler ektazisi ve kalsifikasyonlar (medüller nefrokalsinozis) ile karakterizedir.
- Genetik geçişi yok, genellikle asemptomatik

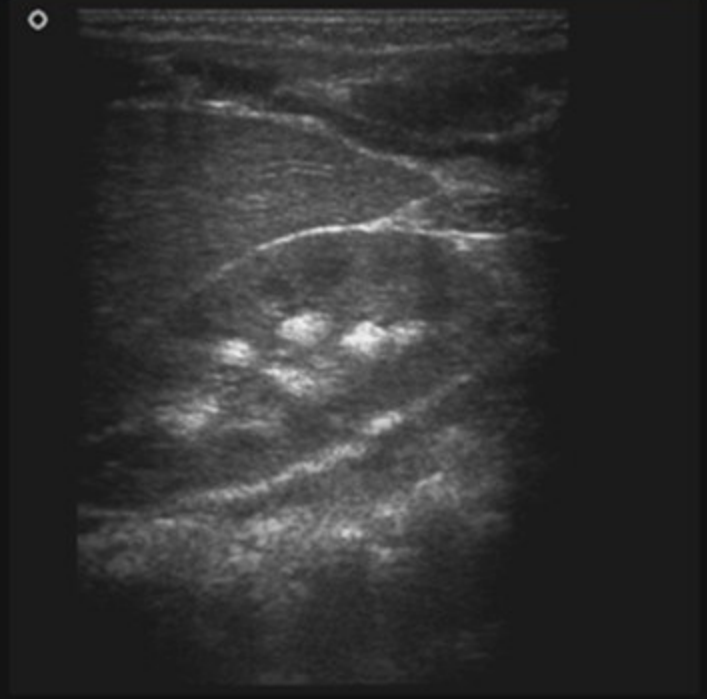
- Görülme sıklığı: 1/5000 - 10000
- Toplayıcı kanallarda 1-7 mm tübüler/kistik genişleme, kalsifikasyon
- Pre-malign değildir!
- IVP – Papillalarda genişlemiş kontrastla dolan tübüler/kistik lezyonlar («Çiçek buketi»)
- US – Ekojen piramisler
- BT – Piramis kalsifikasyonları

9 EYLUL UNI RADYOLOJI | L12-5 38 Ped/NeoRnl | 13:13:07

Map 3
170dB/C 5
Persist Low
2D Opt:Res
Fr Rate:High

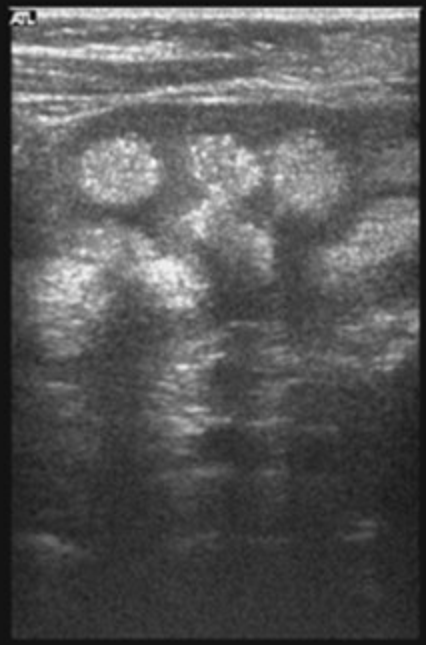


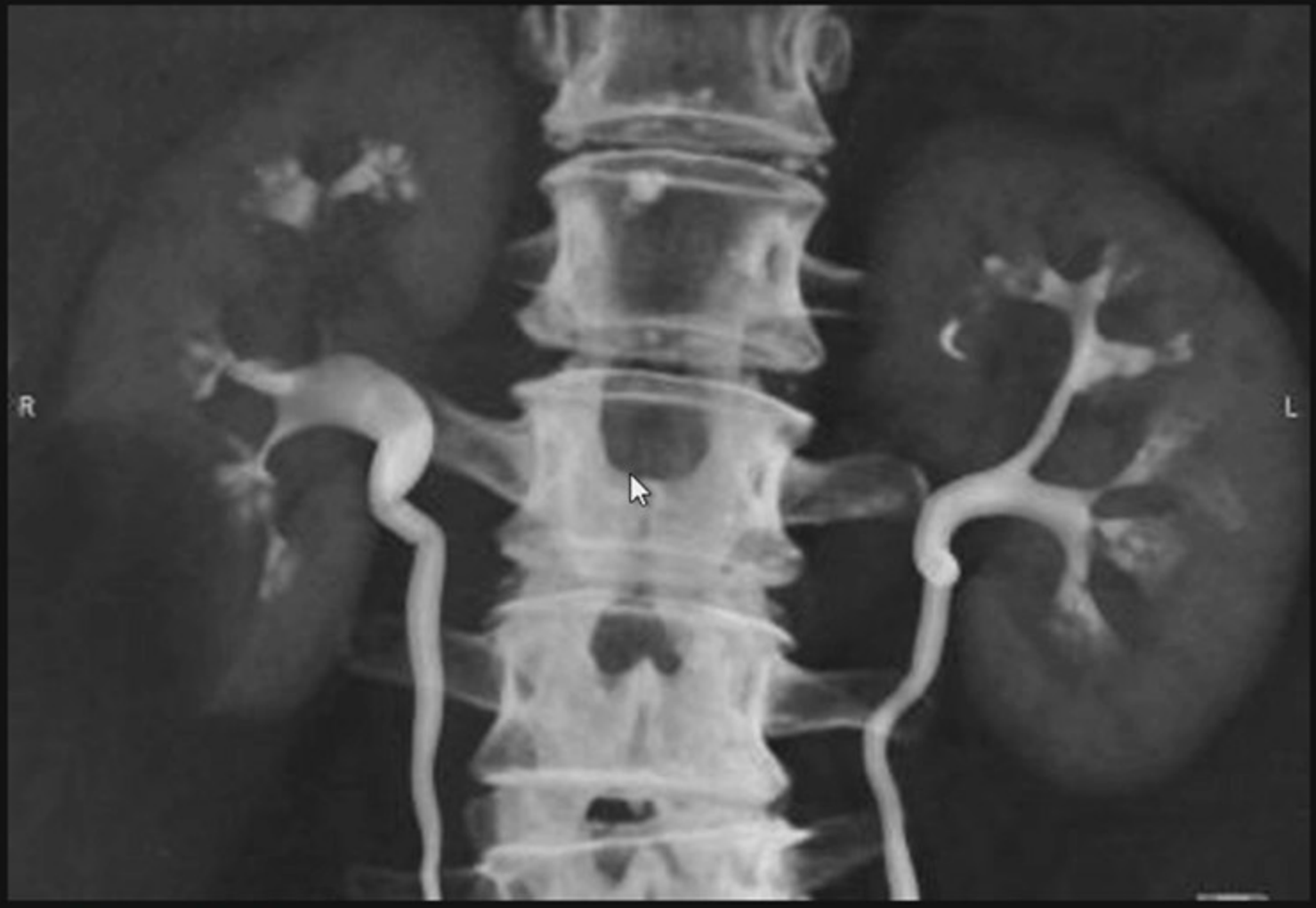
DOKUZ EYLUL UNI TIP RADYOLOJI



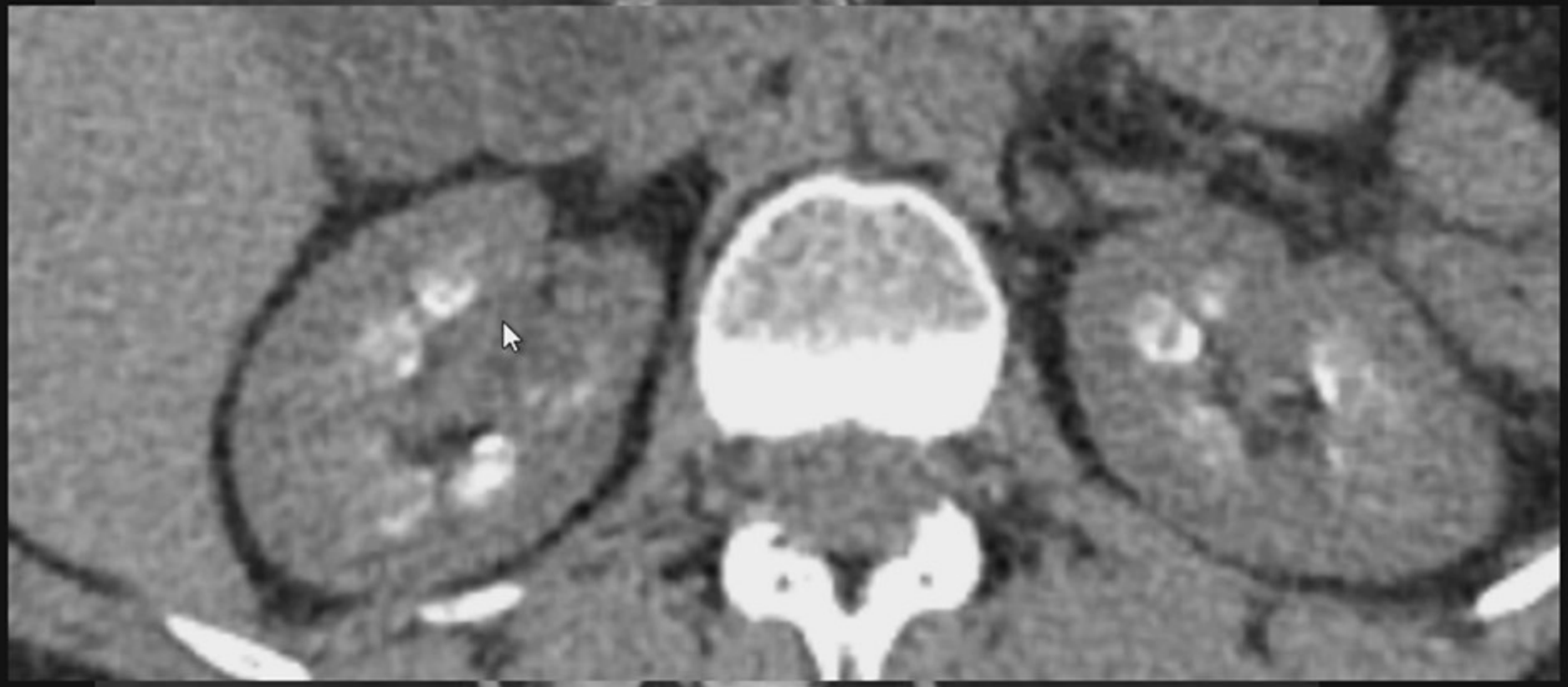
DOKUZ EYLUL UNI.RADYOL | L12-5 38 Ped/NeoAb | 11:46:13

Map 3
170dB/C 5
Persist Low
2D Opt:Res
Fr Rate:High

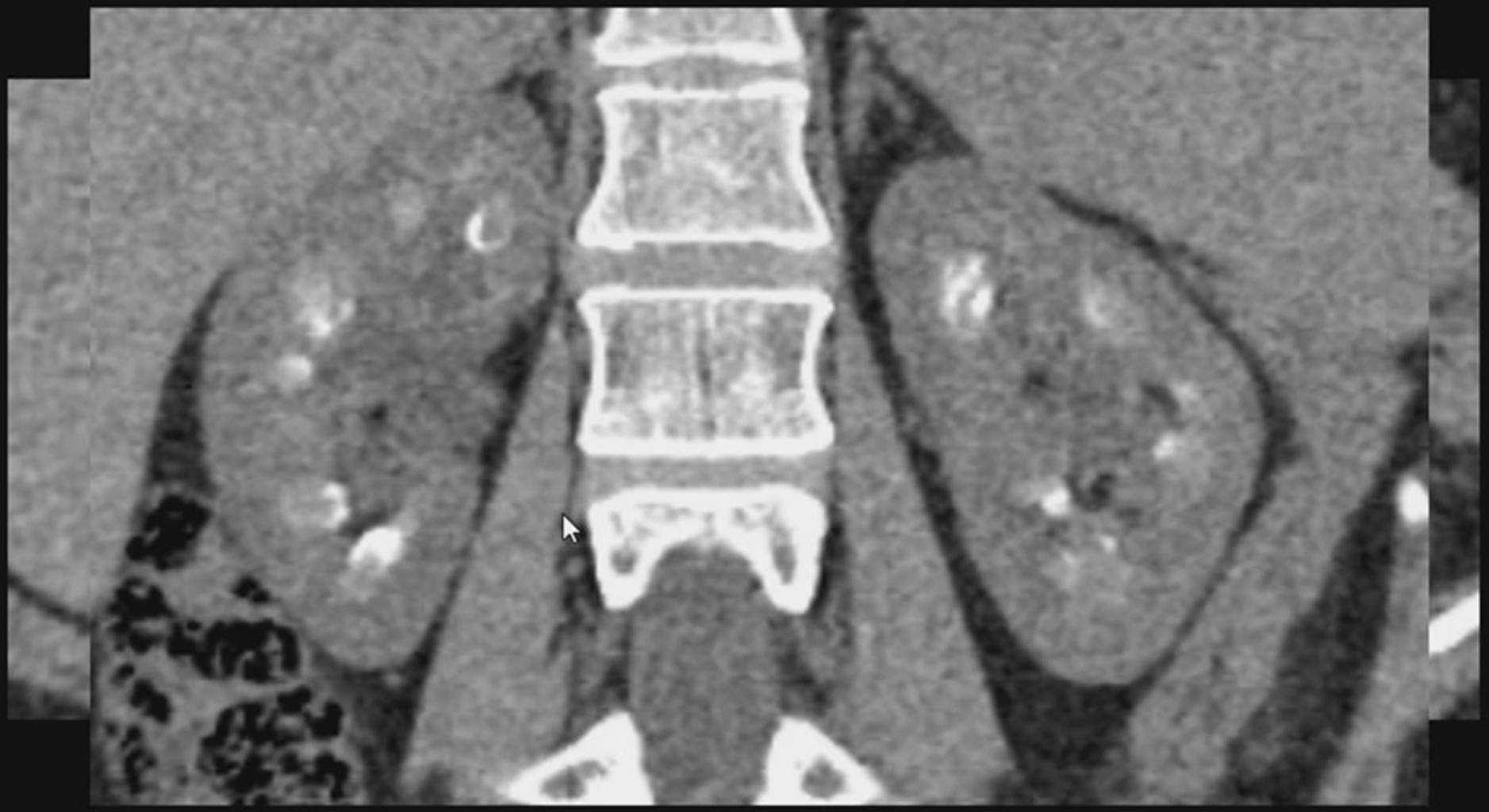




35 y, K, Epigastrik ağrı



35 y, K, Epigastrik ağrı



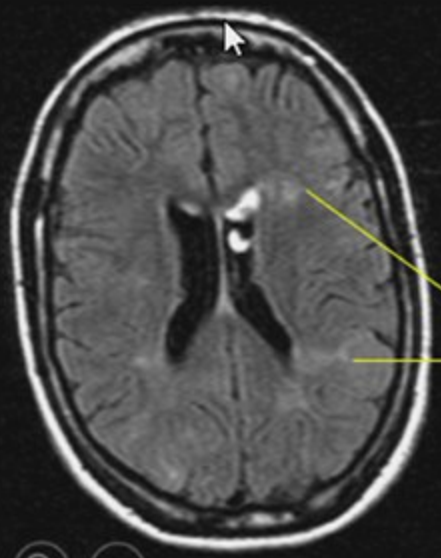
35 y, K, Epigastrik ağrı

Herediter Sendromlara Eşlik Eden Renal Kistler

- Tuberoskleroz
  - Renal çoğul anjiomyolipomlar
  - Böbrek kistleri
- Von Hippel Lindau Sendromu
  - Böbrek kistleri
  - Renal hücreli kanserler
  - Serebellar/spinal hemanjioblastomlar
  - Pankreas seröz kistadenom/nöroendokrin tm
  - Paratestiküler/epididimal kistadenoma
- Meckel Gruber Sendromu
- Joubert Sendromu....

Tuberoskleroz

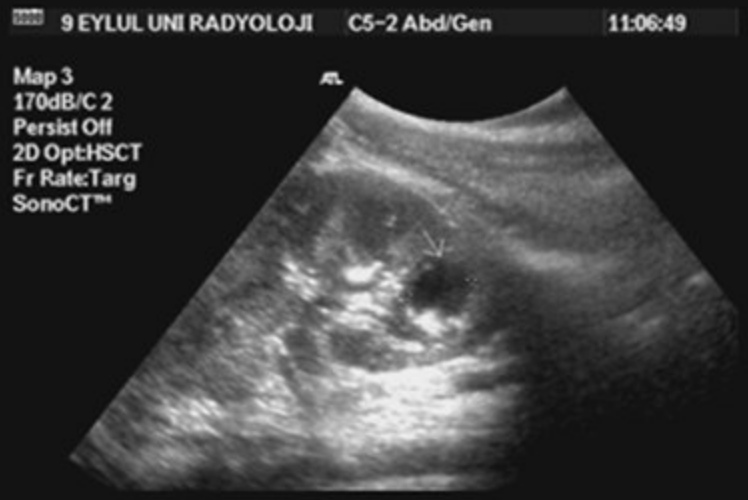
- Nörokutanöz sendrom
  - Mental retardasyon
  - Epilepsi
  - Adenoma sebaseum

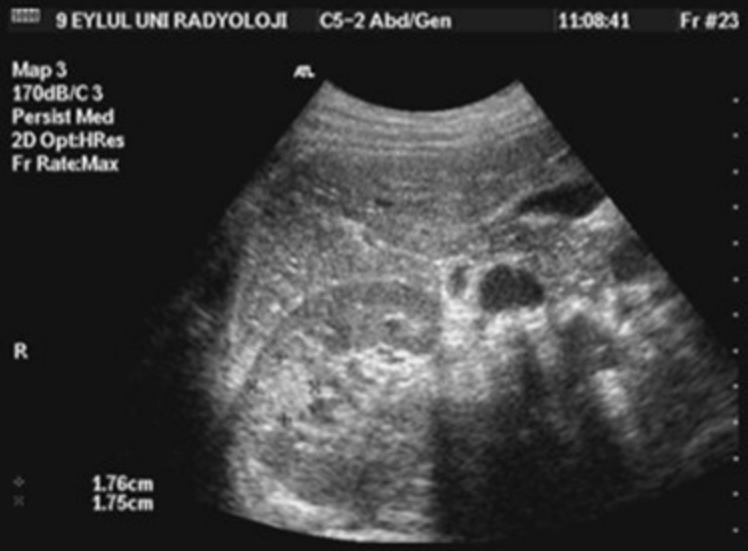


Kortikal tuber

Subepandimal tuberler

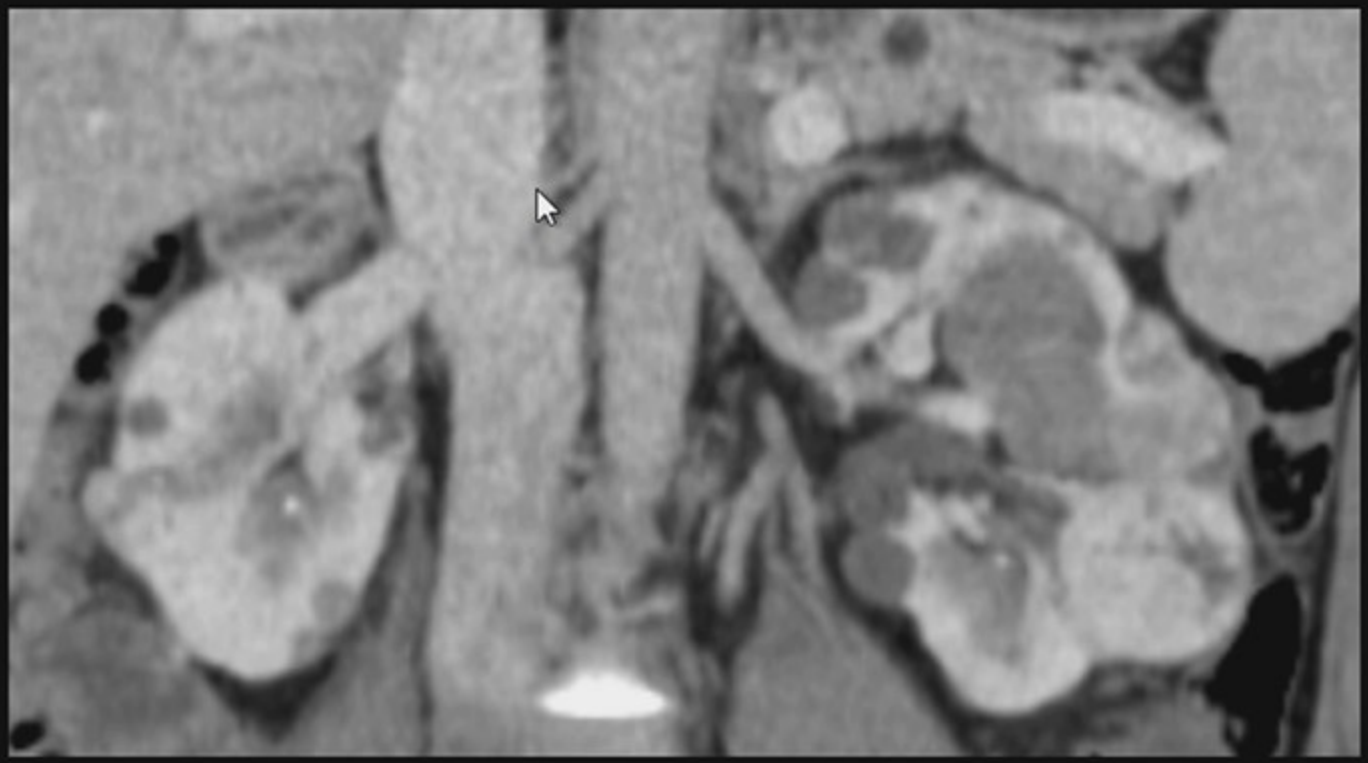
Radial beyaz cevher bantları





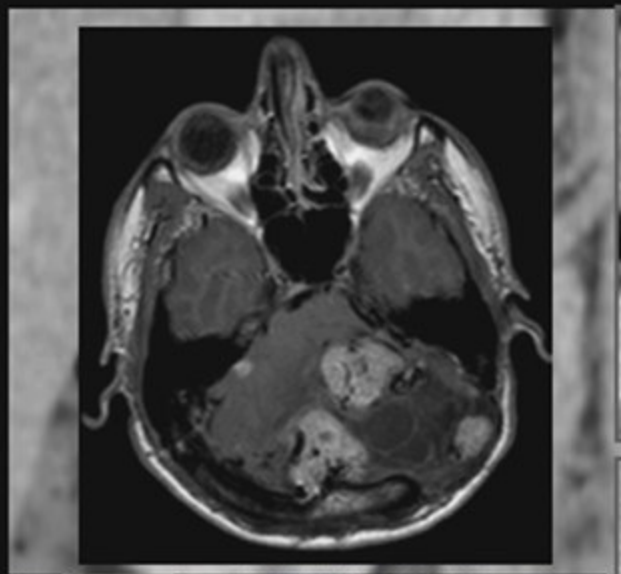
15 y, K

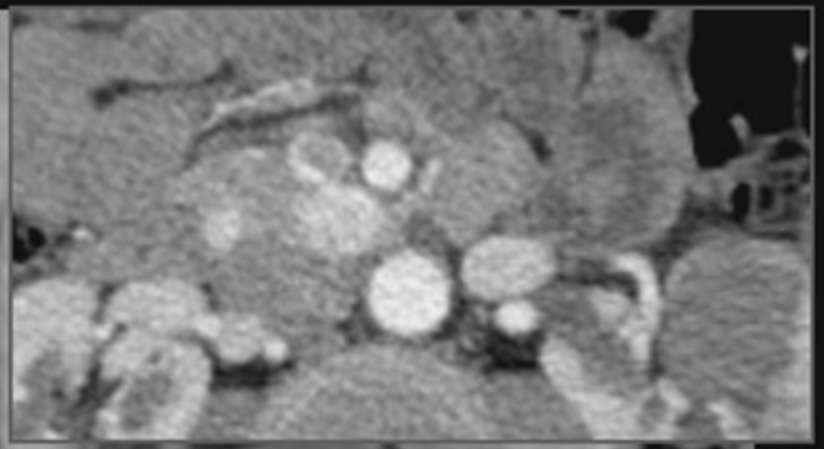
Von Hippel Lindau Sendromu

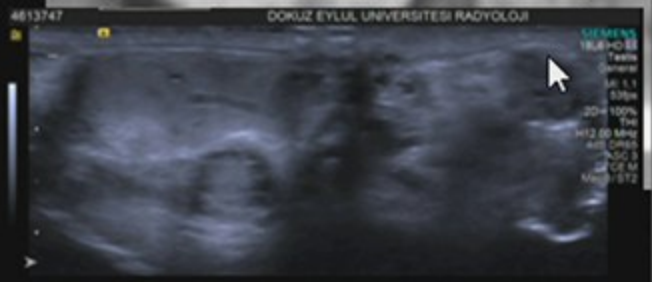


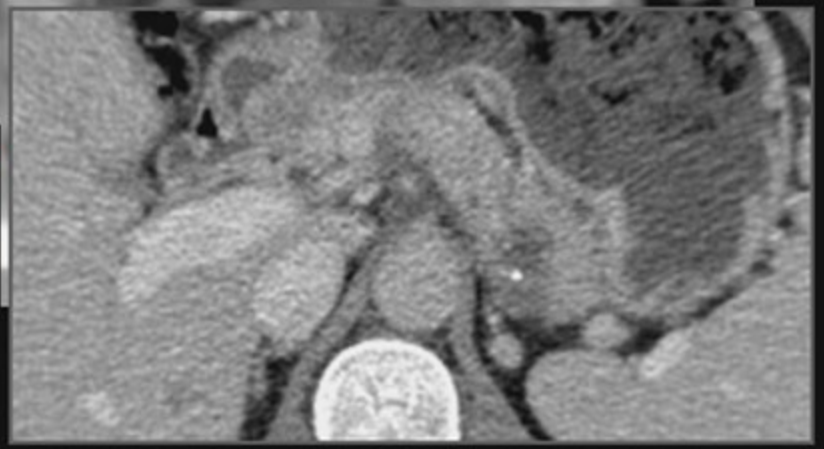
38 y, E

Von Hippel Lindau Sendromu





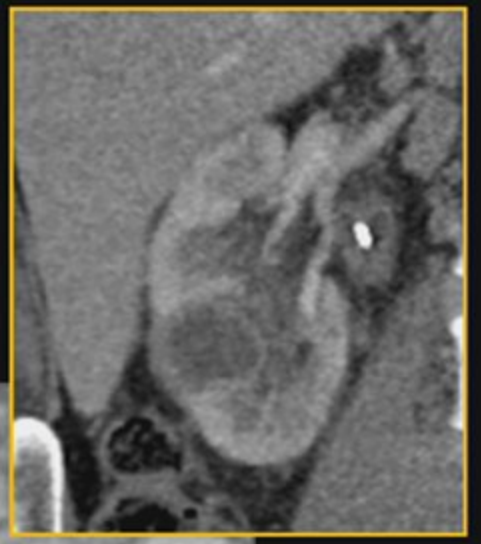


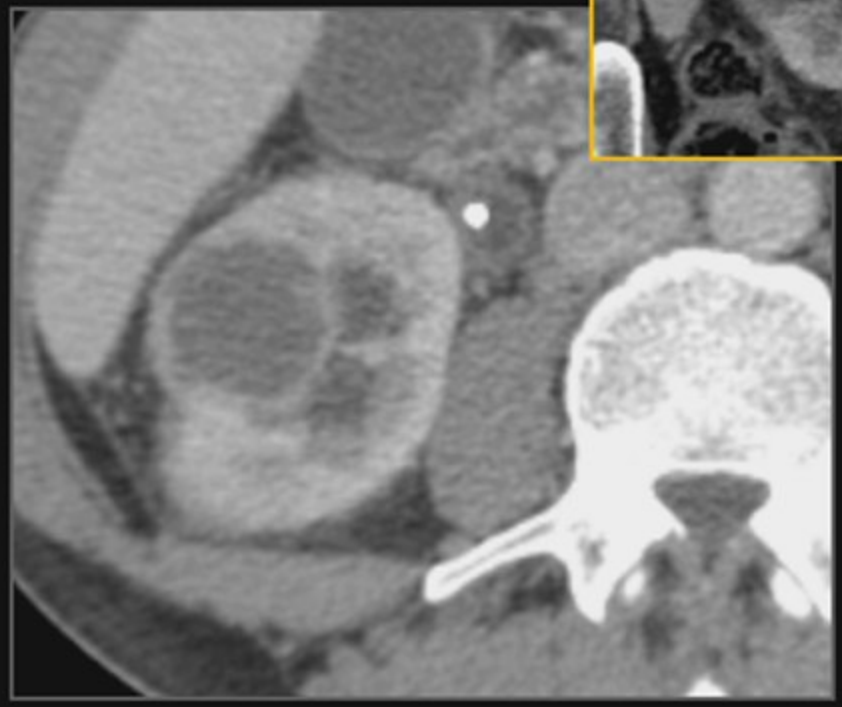


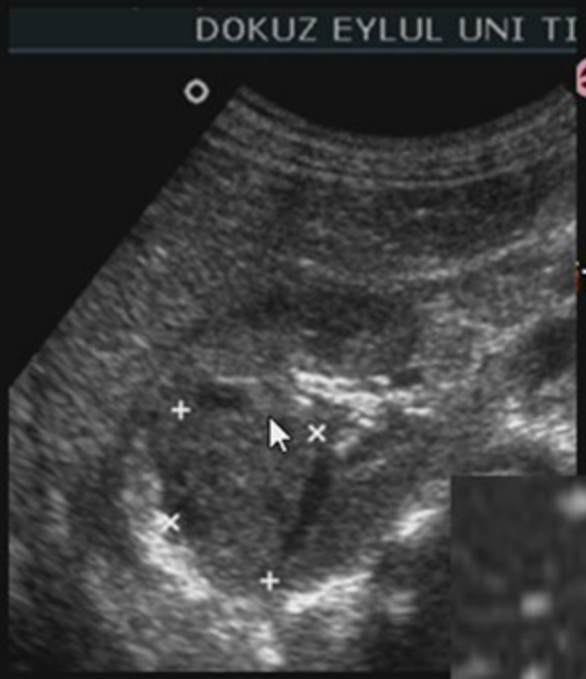
38 y, E

Enfeksiyon/Enfestasyonlar

- Renal Abse
  - Sıklıkla akut pyelonefritin komplikasyonudur
  - Ateş, dizüri, yan ağrısı
  - Kalın duvarlı
  - Unilokuler/multilokuler

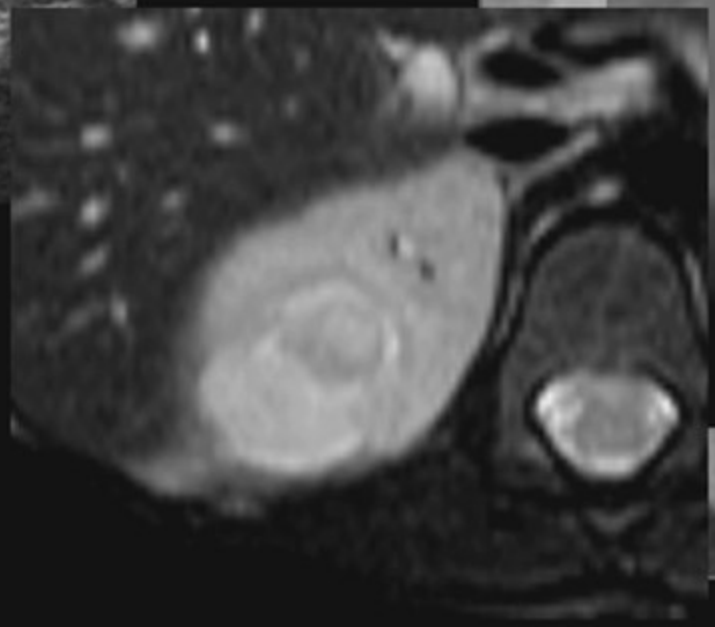


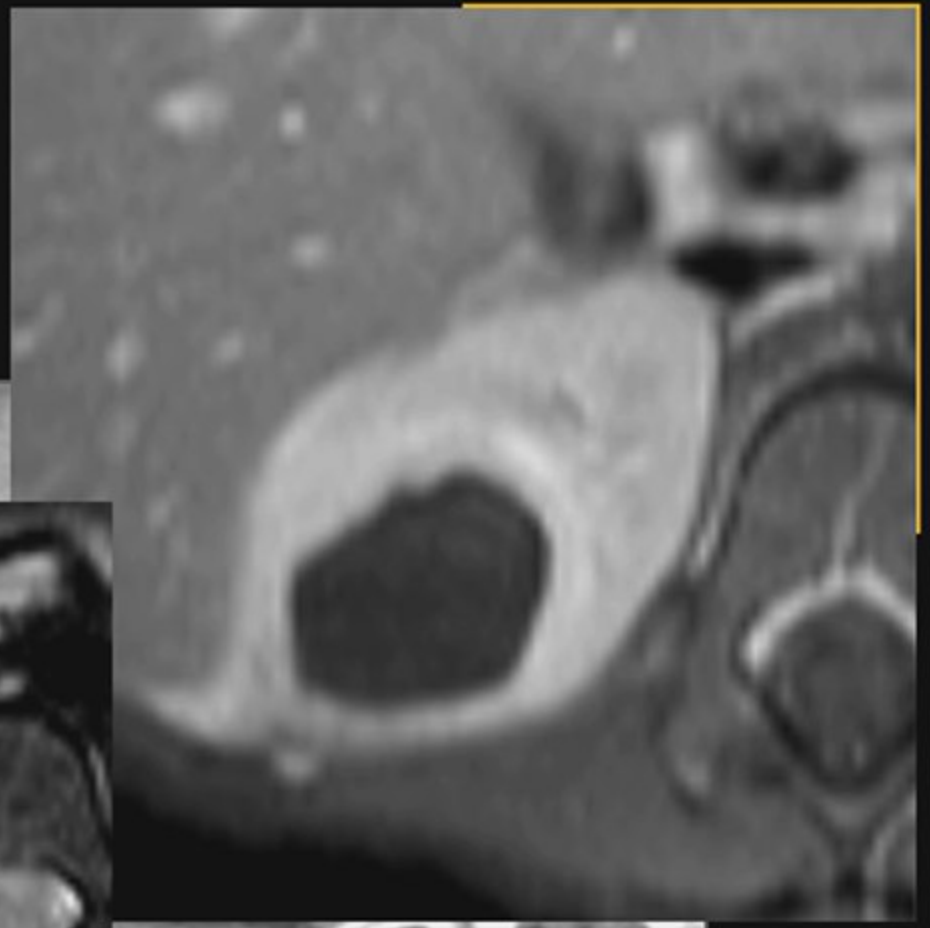


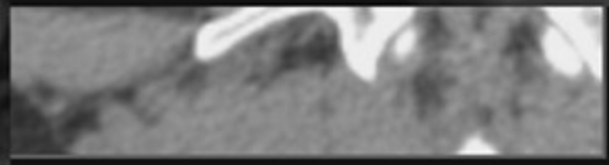


estasyonlar

itin komplikasyonudur







25 y,K

DOKUZ EYLUL UNI TI

estasyonlar

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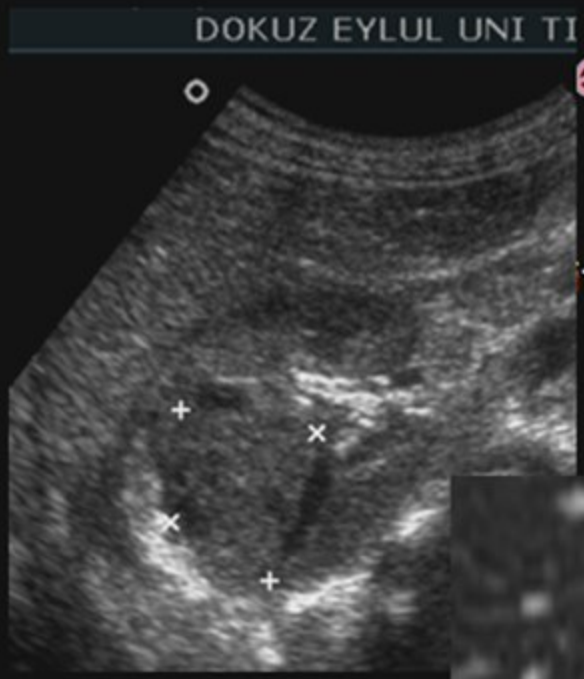
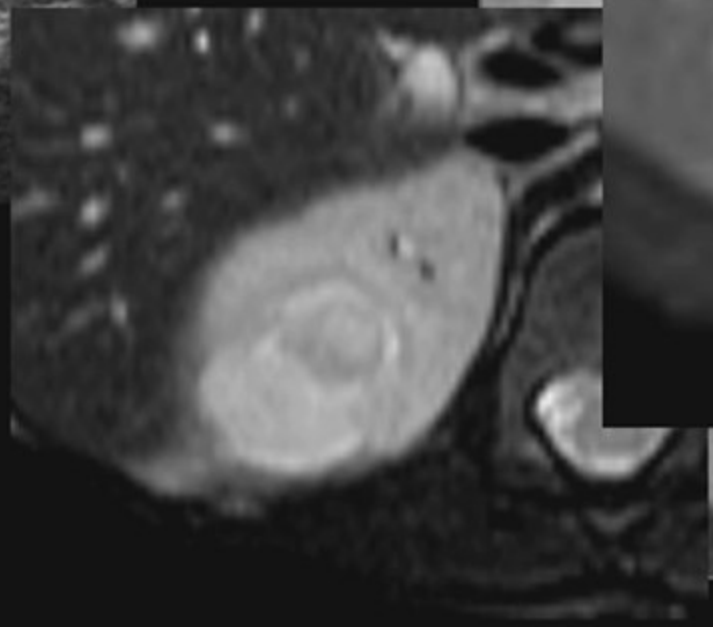
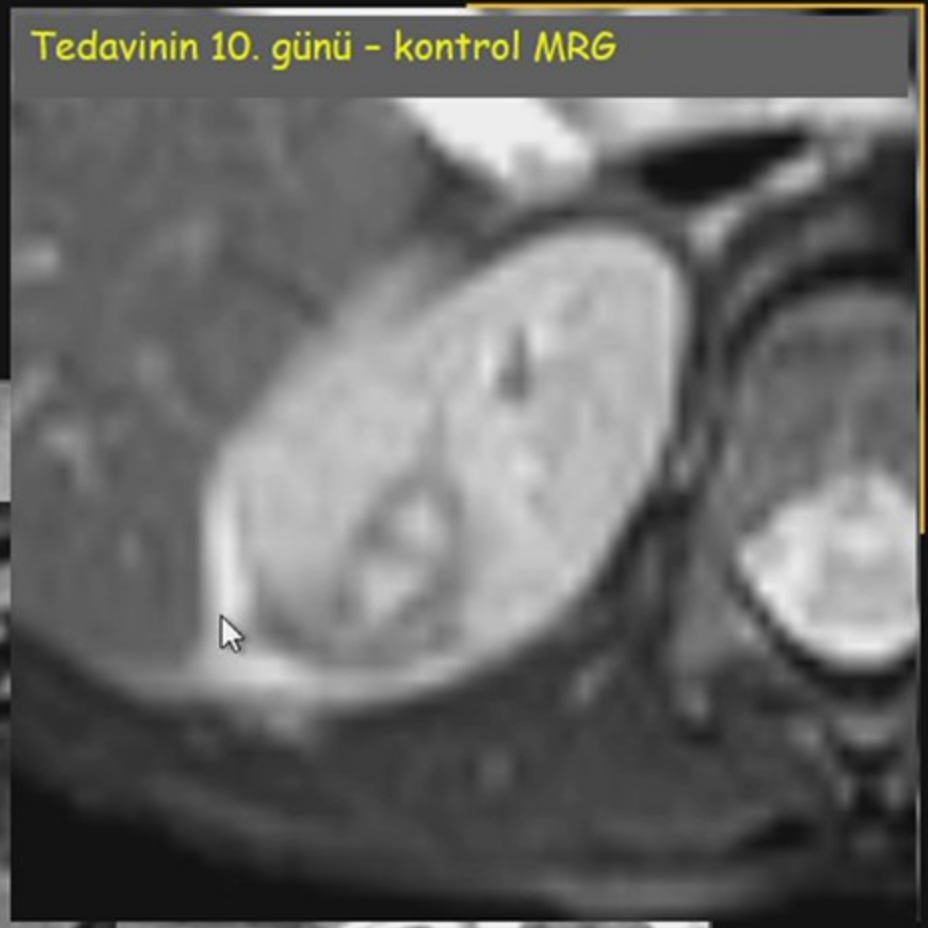
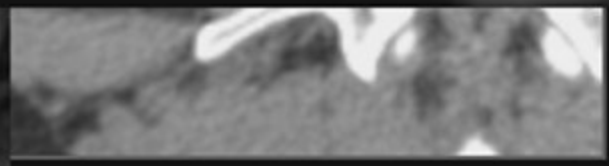




Tedavinin 10. günü – kontrol MRG

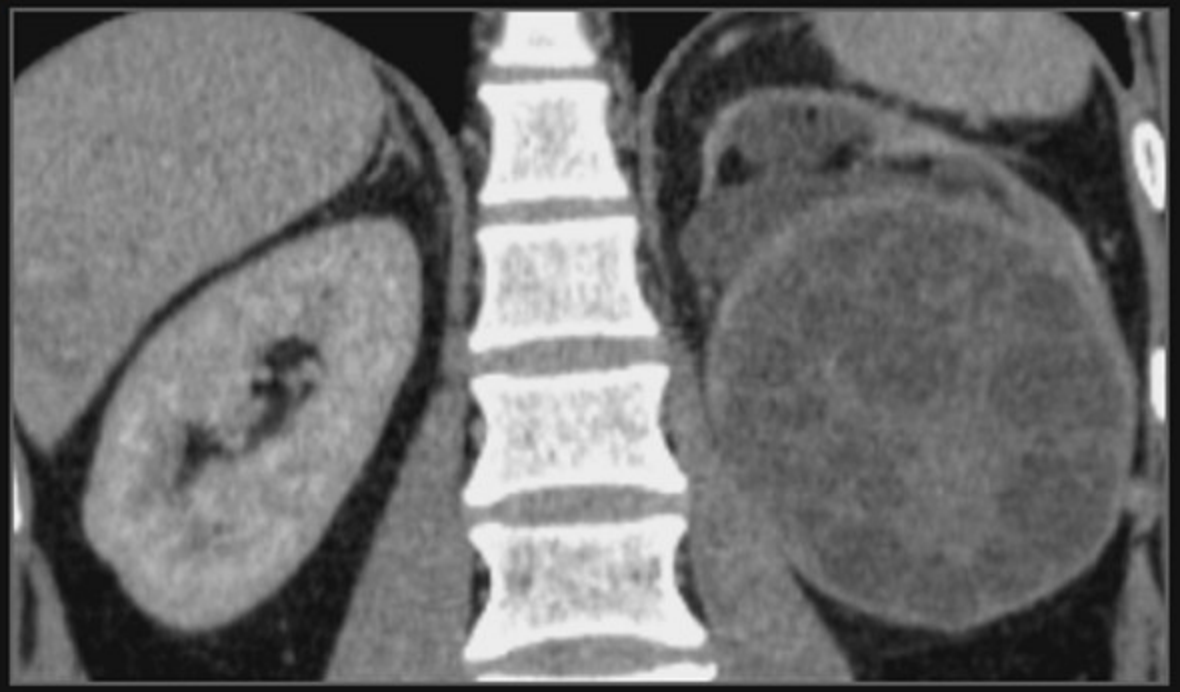




25 y.K

Enfeksiyon/Enfestasyonlar

- Hydatid kist
  - Nadir, tüm hastaların %2-3
  - Uniloküler/ multiloküler/kalsifiye kistler
  - Tek/multipl

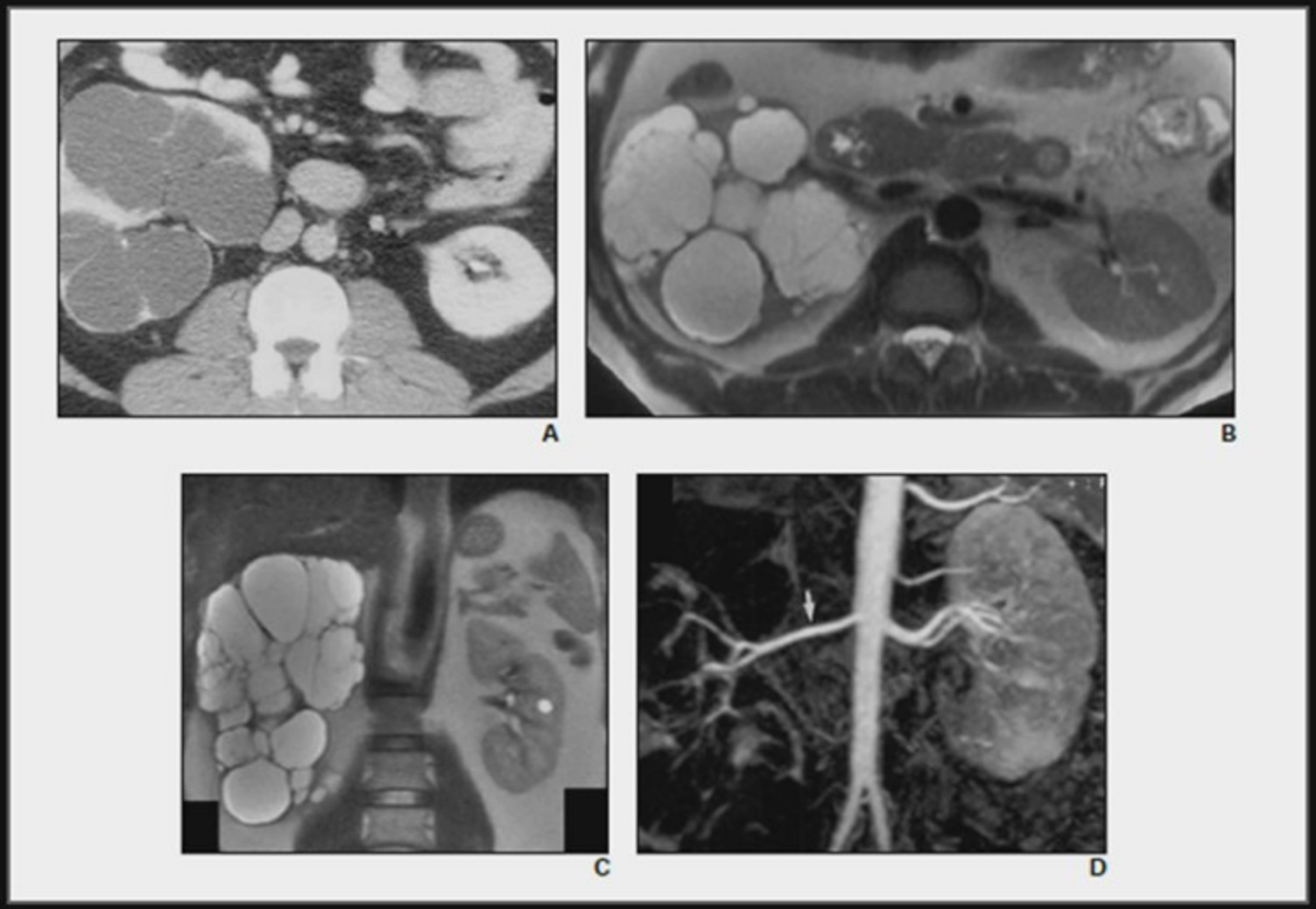


52 y, E, izole renal hydatid kist

Lokalize Renal Kistik Hastalık

- Tek böbrekte, lokal ya da tüm böbreği tutan
- Kümeleşen ve kistik bir renal kitleyi taklit edebilen
- Benign kistik hastalık
- Komşu parankim normal/atrofik
- Kümeleşen kistleri çevreleyen bir kapsül yoktur!!!

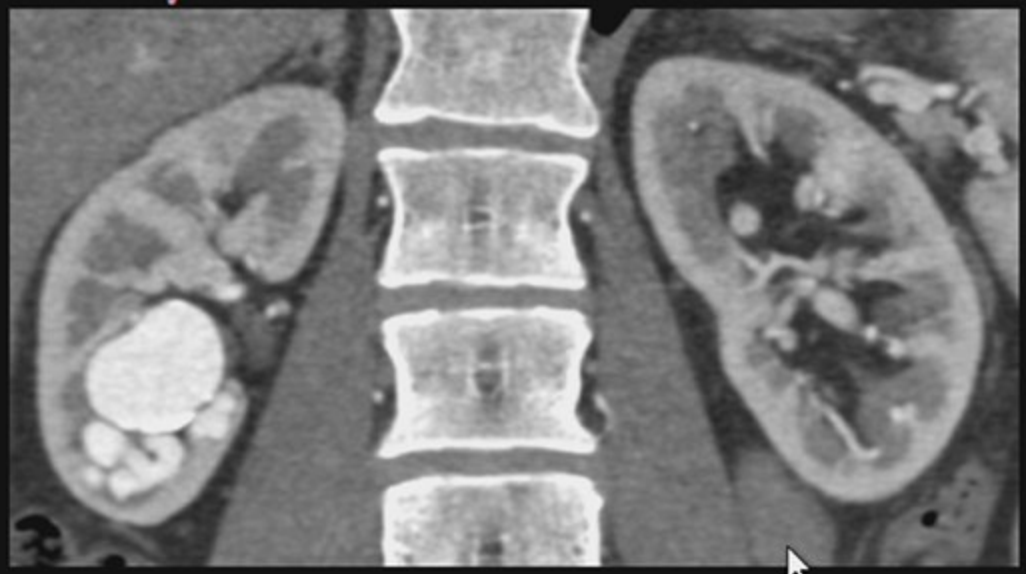
- Karşı böbrek normal / Saçılmış birkaç kist izlenebilir



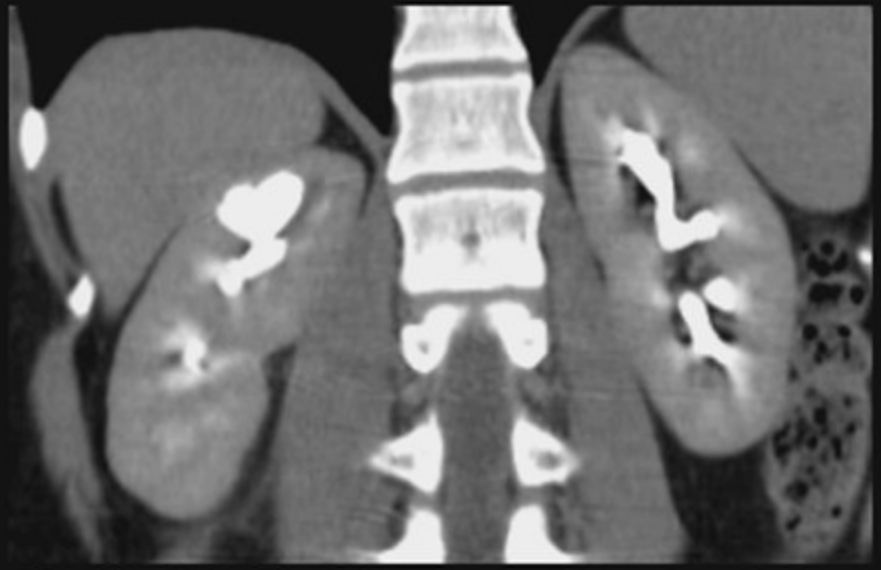
Slywotzky et al, Localized Cystic Renal Disease of Kidney, AJR 2001;176:843-849

Nadir Benign Kistik Renal Lezyonlar

- Renal arter pseudoanevrizma



- Kalikseal divertikül



Radyolojik olarak...

- Böbrek kistlerinin ayırıcı tanısında;
  - Kalsifikasyon
  - Septasyon
  - Multilokulerite
  - Duvar yapısı ve kontrastlanma

- Standart yaklaşım- **Bosniak sınıflaması**

Bosniak Sınıflaması - 1986

- İlk kez 1986 yılında, Radiology
- Böbrek kistleri 4 temel gruba ayrılmıştır.

Sınıf 1	Basit kist
Sınıf 2	Septasyon (+), Minimal kalsifikasyon, yüksek dansite
Sınıf 3	İrregüler kalın duvar / septasyon – duvar kontrastlanması
Sınıf 4	Septasyon, kalın duvar, kontrastlanan solid bileşen

Bosniak Sınıflaması - 1997

- Sınıflama ile ortak dil oluşmuştur.

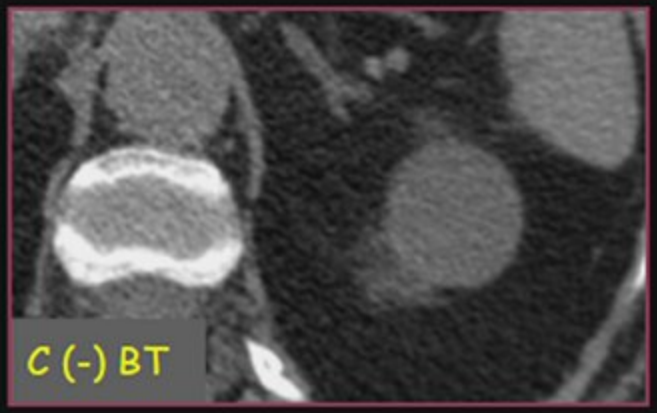
- 1997 yılında sınıflama Bosniak'ın kendisi tarafından güncellenmiştir.
- Sınıf 2F («follow-up») eklenmiştir.
- Güncel sınıflama sisteminde toplam 5 alt grup vardır:

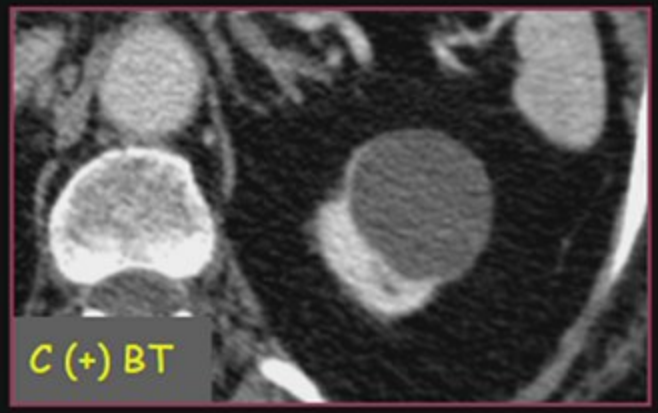
  1, 2, 2F, 3, 4

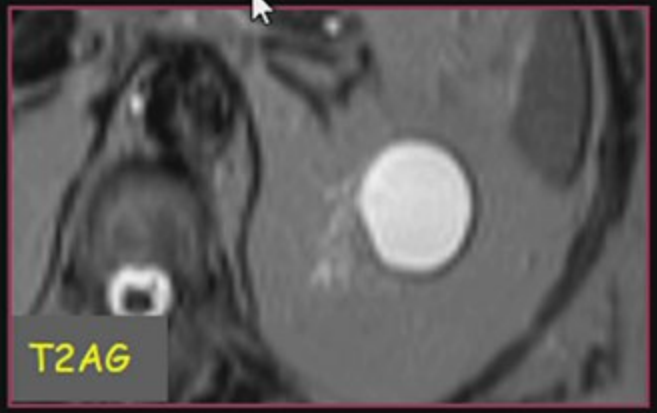
Bosniak Sınıf 1 Kist

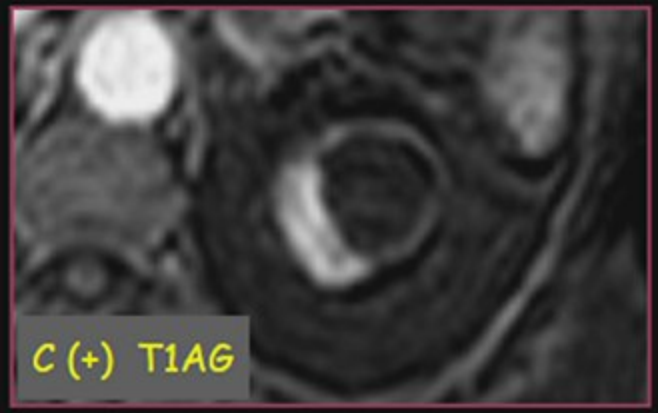
- Basit parankimal kist
  - Kontrastsız BT/MR sıvı dansitesinde (0-20 HU)/sinyalinde
  - Seçilemeyecek kadar ince duvarlı
  - Kontrastlanma yok
  - Kalsifikasyon yok
  - Septasyon yok

Bosniak Sınıf 1 Kist



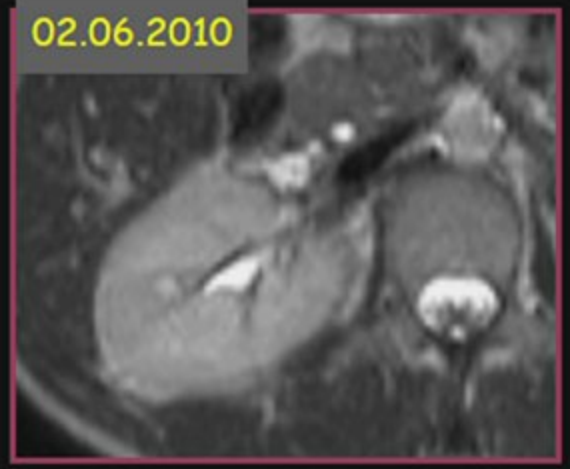




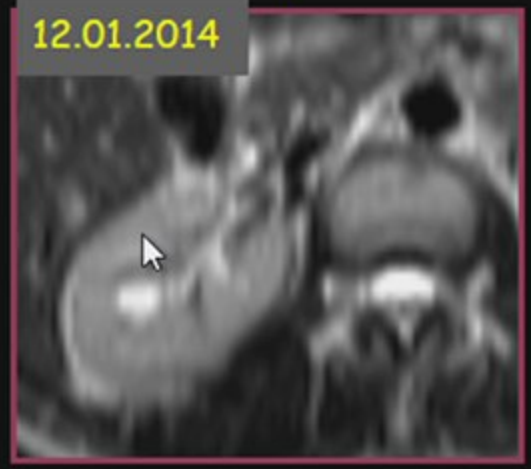


Bosniak Sınıf 1 Kist - Boyut artışı +/-

02.06.2010

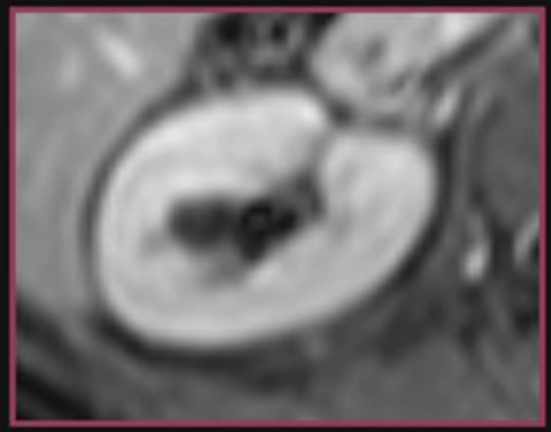


12.01.2014

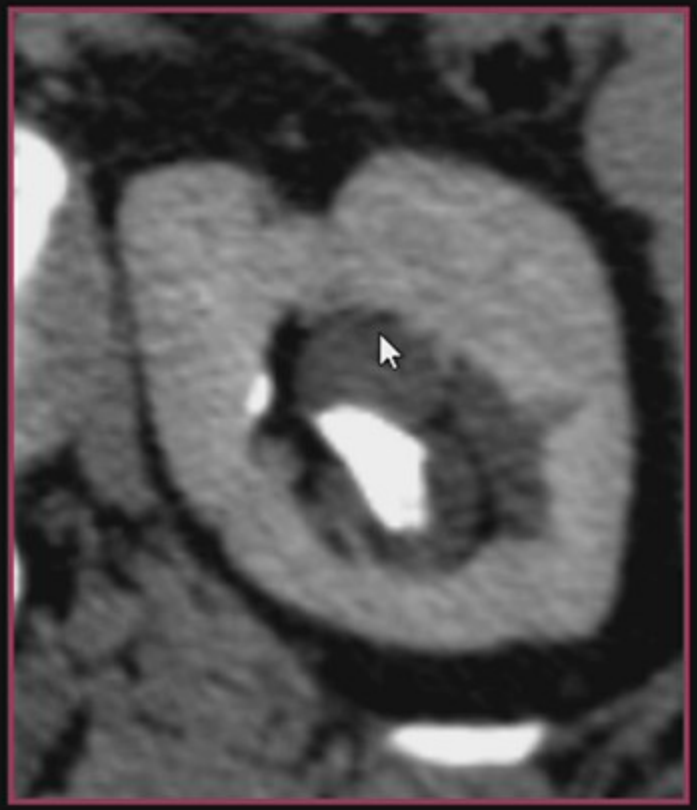


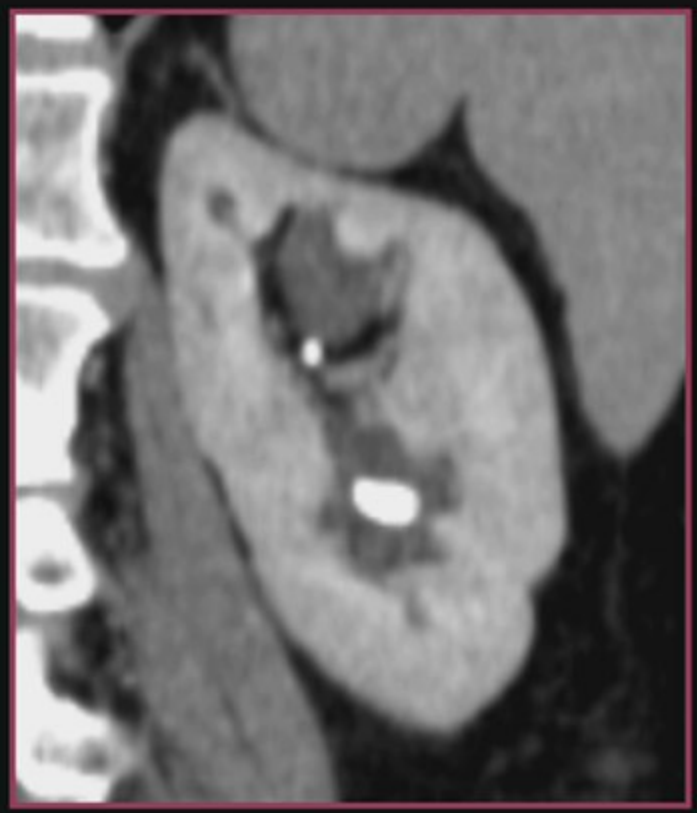
07.10.2016

36 y, K, adrenal adenom



Bosniak Sınıf 1 Kist - Parapelvik +/-



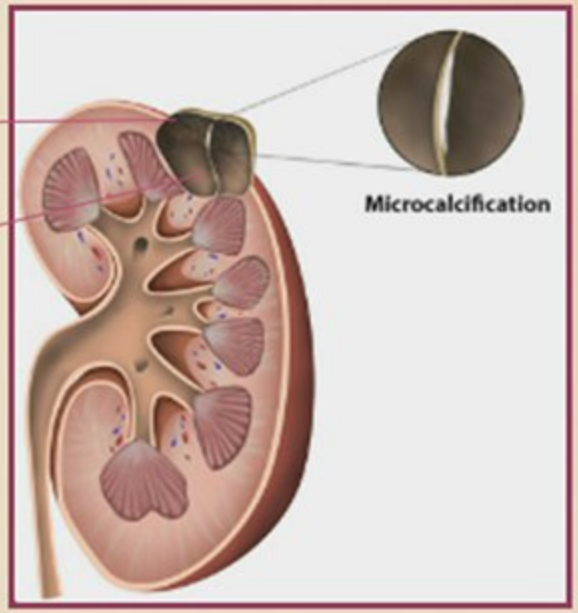


69 y, K, sağ nefrektomi (Ürotelyal tm)

Bosniak Sınıf 2 Kist

- Birkaç adet septasyon içeren benign kist
  - Seçilemeyecek kadar ince duvarlı, ince birkaç septasyon +/-
  - Ölçülebilen kontrastlanma yok !!!
  - Septasyonda ya da duvarda ince kalsifikasyon +/-
  - 3 cm'den küçük hiperdens/hemorajik kist

Hemorajik > 20 HU
3 cm'den küçük



Bosniak Sınıf 2 Kist

- Birkaç adet septasyon içeren benign kist
  - Seçilemeyecek kadar ince duvarlı, ince birkaç septasyon +/-
  - Ölçülebilen kontrastlanma yok !!!
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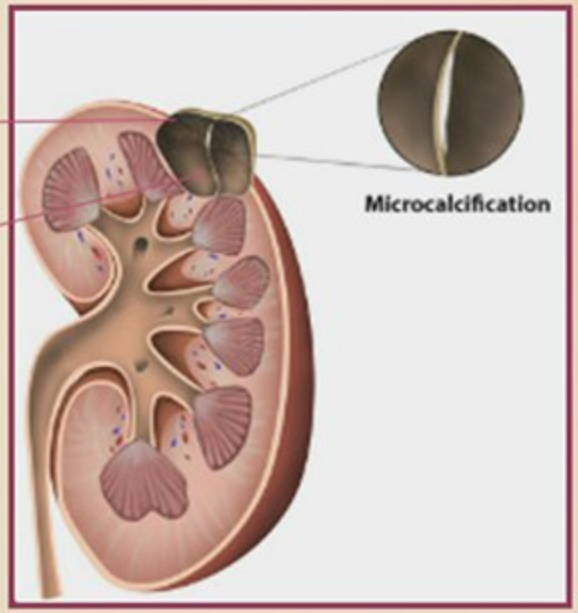
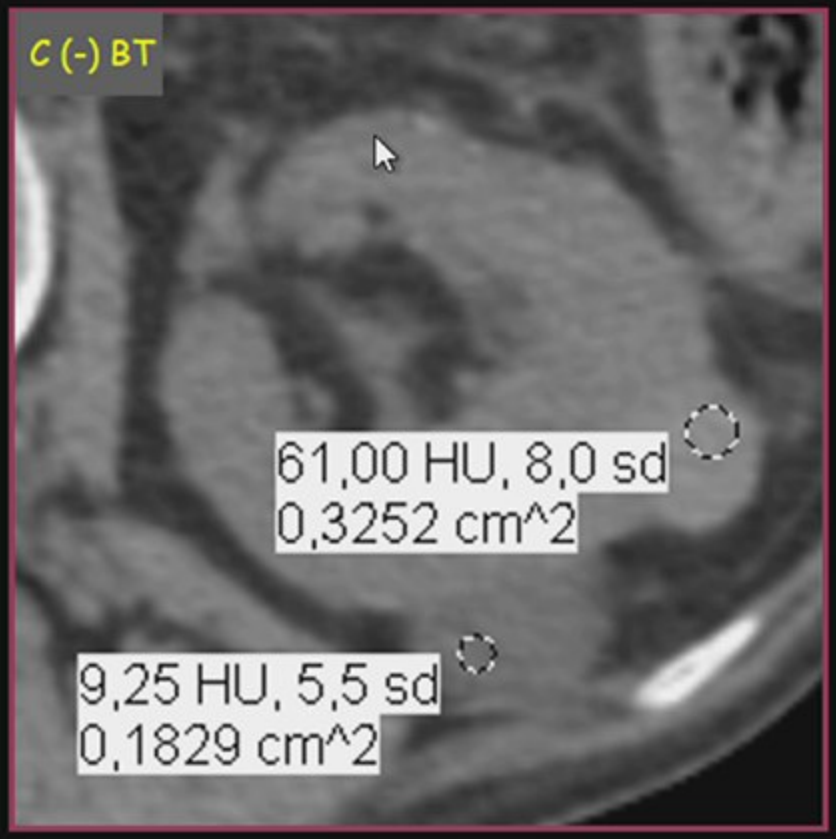
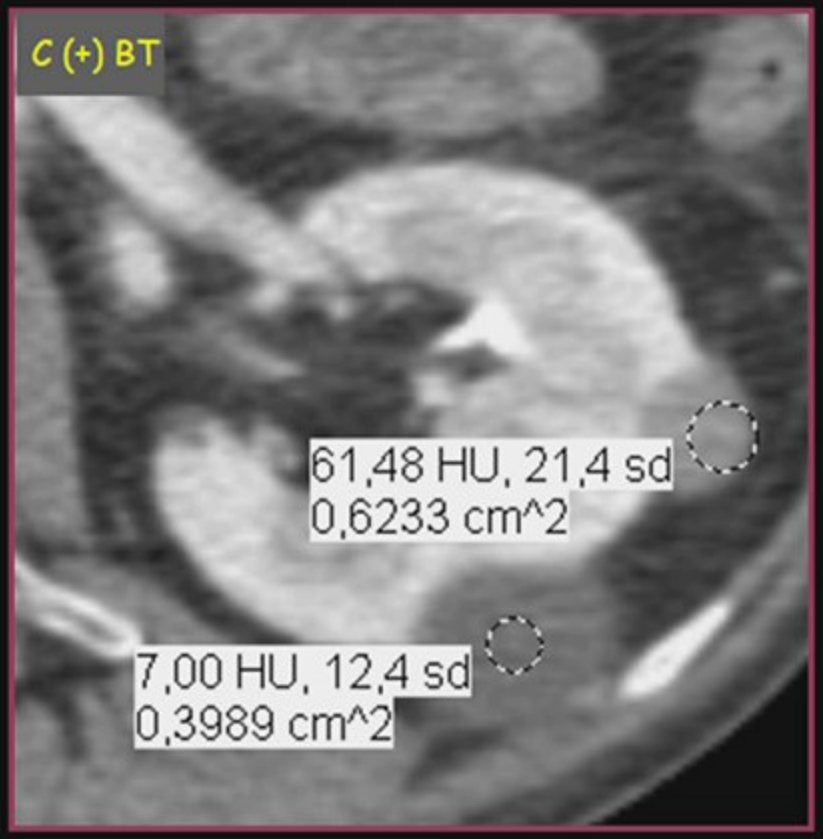
  - 3 cm'den küçük hiperdens/hemorajik kist

Hemorajik > 20 HU
3 cm'den küçük



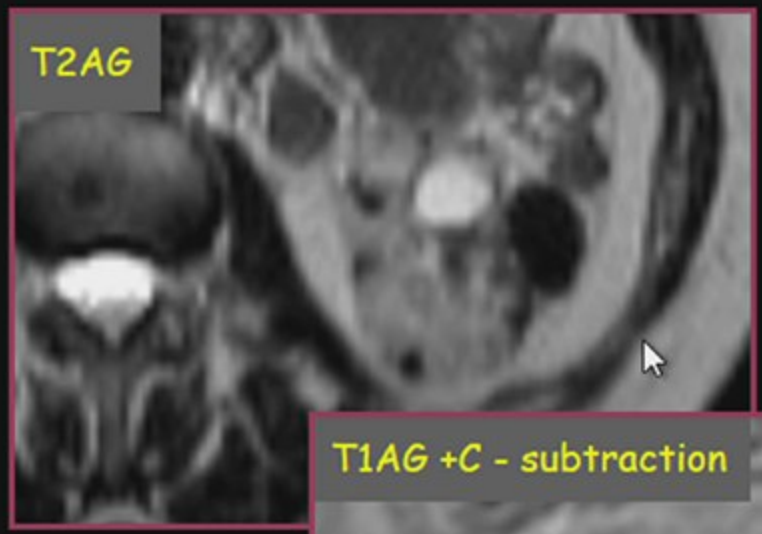
Bosniak Sınıf 2 Kist

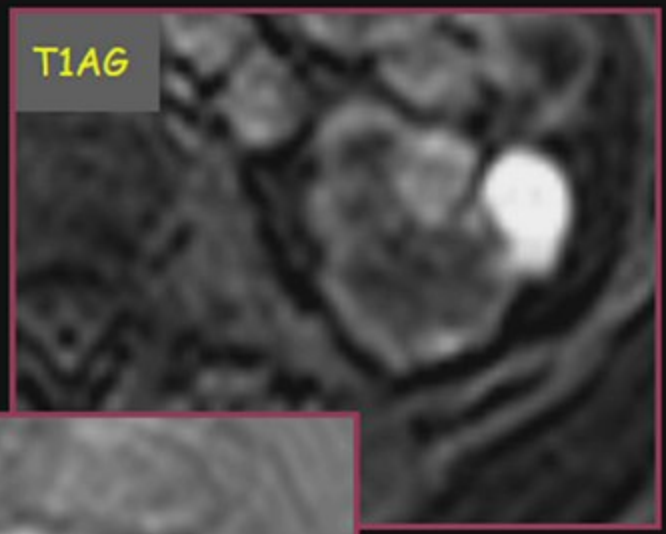


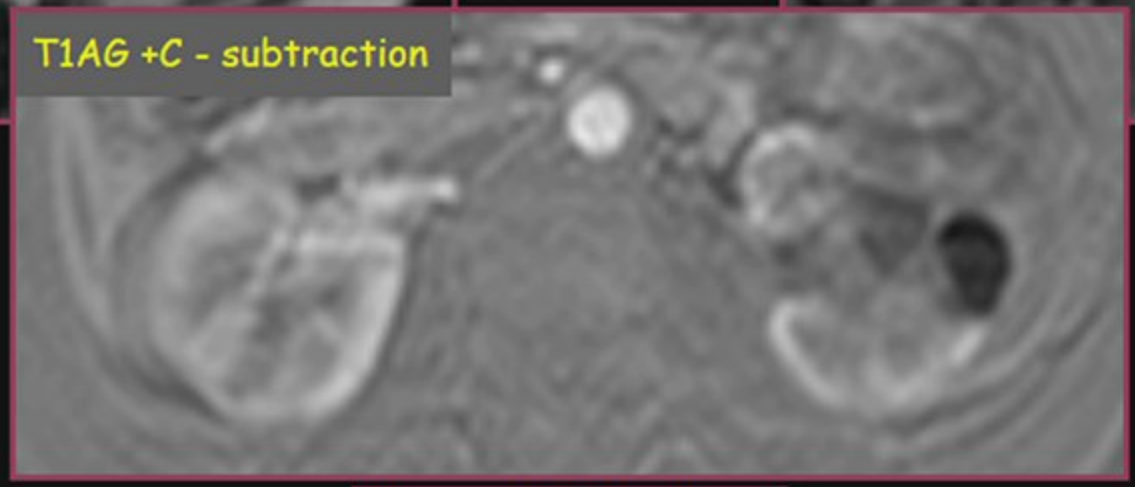


Hemorajik kist < 3 cm

Bosniak Sınıf 2 Kist

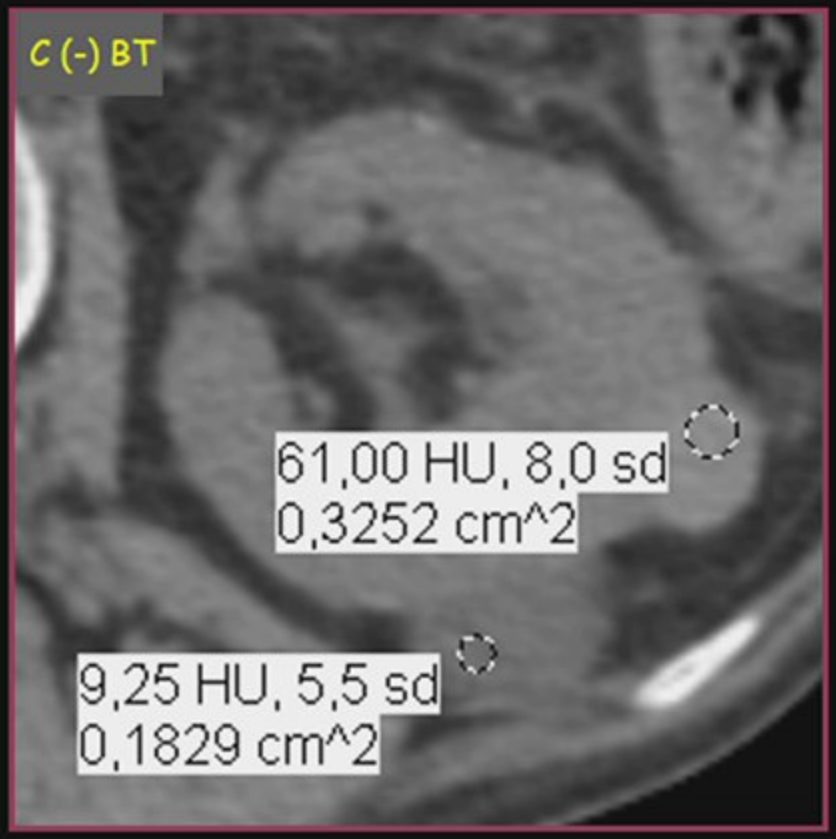


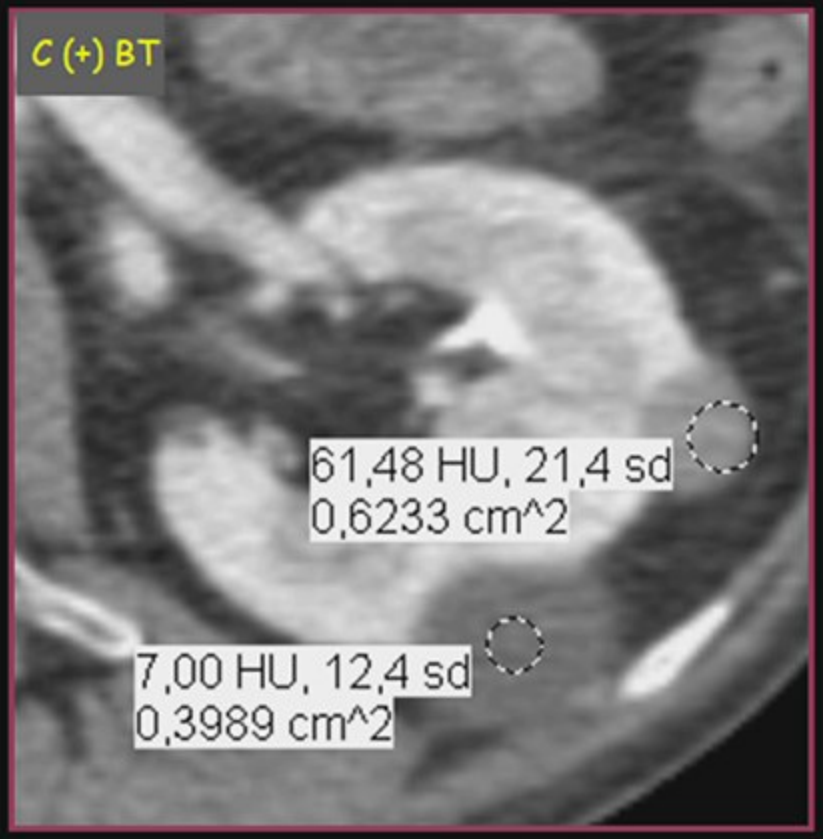




Hemorajik kist < 3 cm

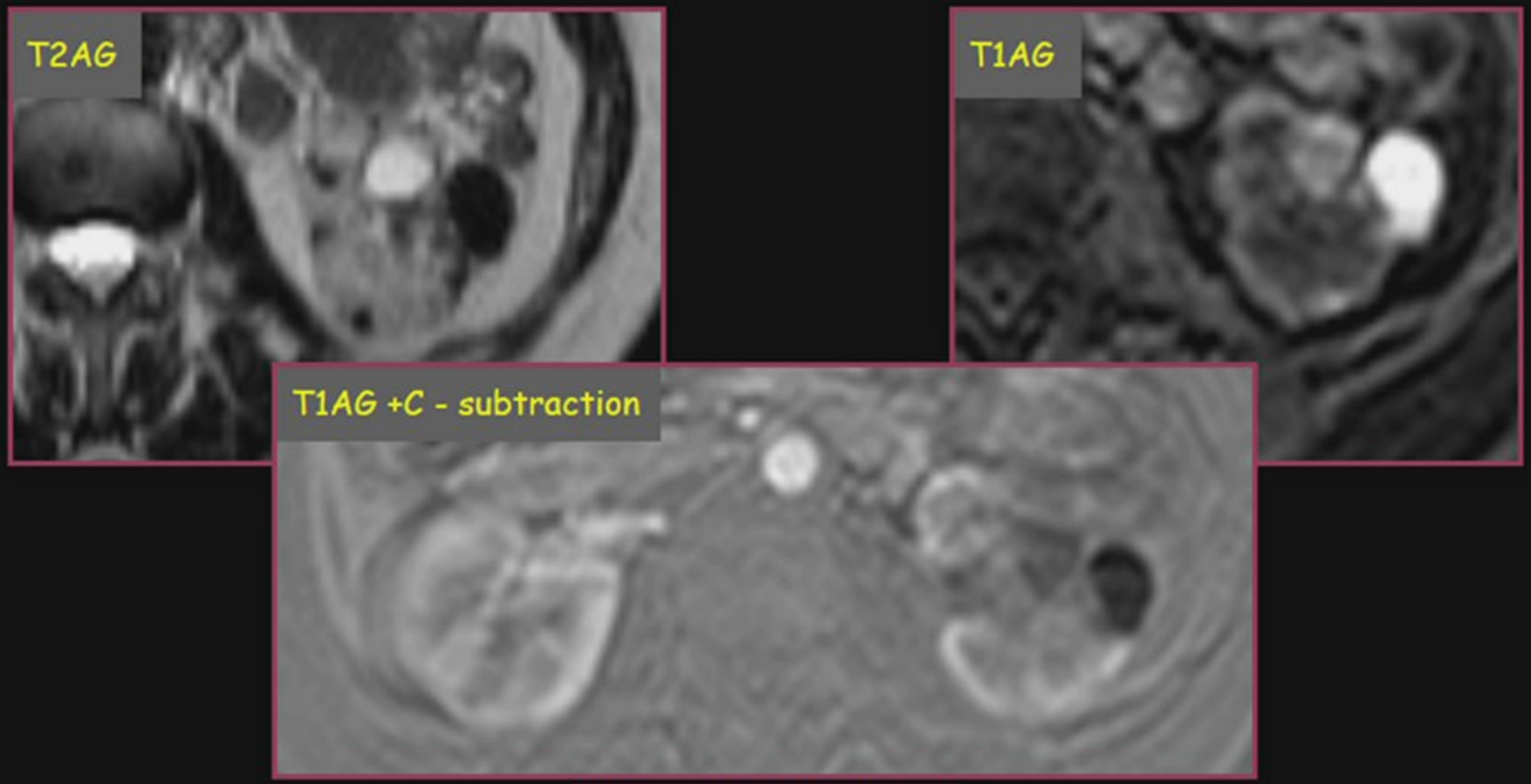
Bosniak Sınıf 2 Kist





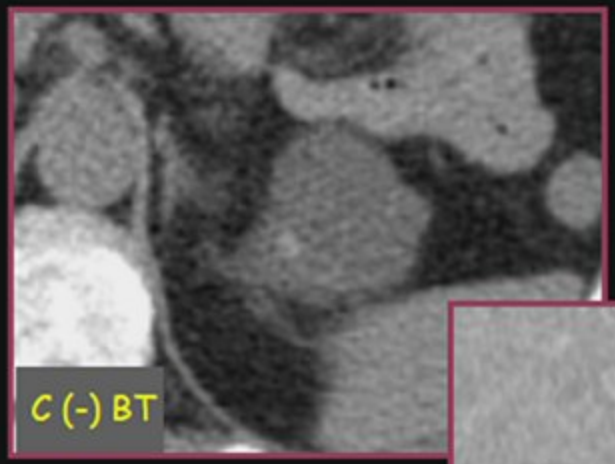
Hemorajik kist < 3 cm

Bosniak Sınıf 2 Kist

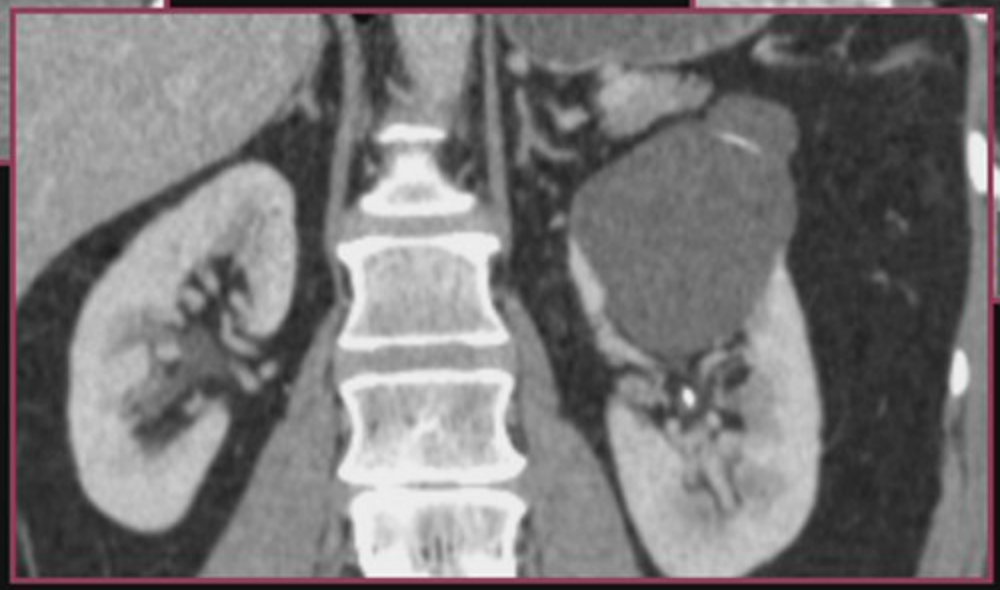


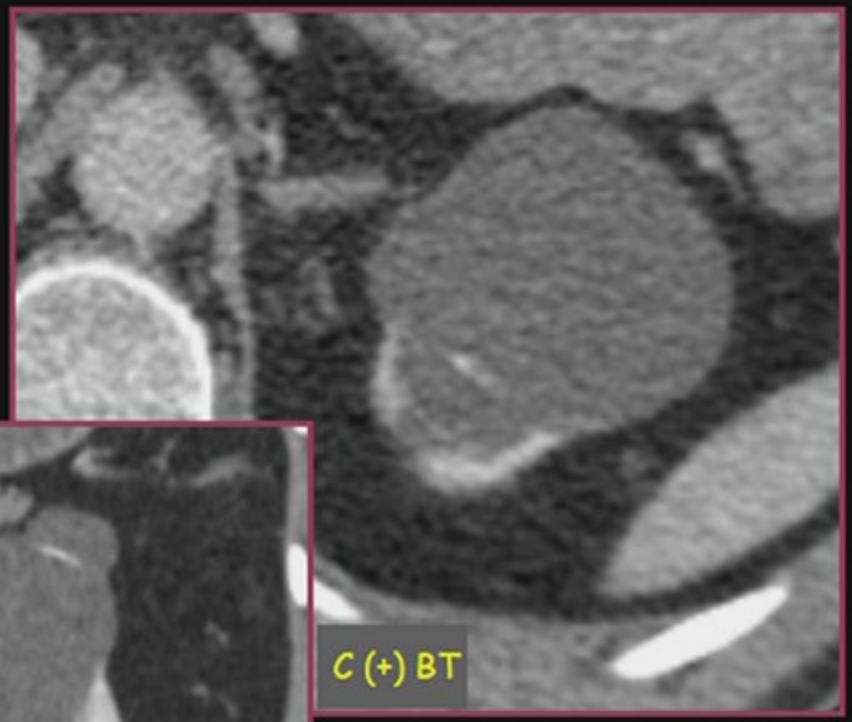
Hemorajik kist < 3 cm

Bosniak Sınıf 2 Kist

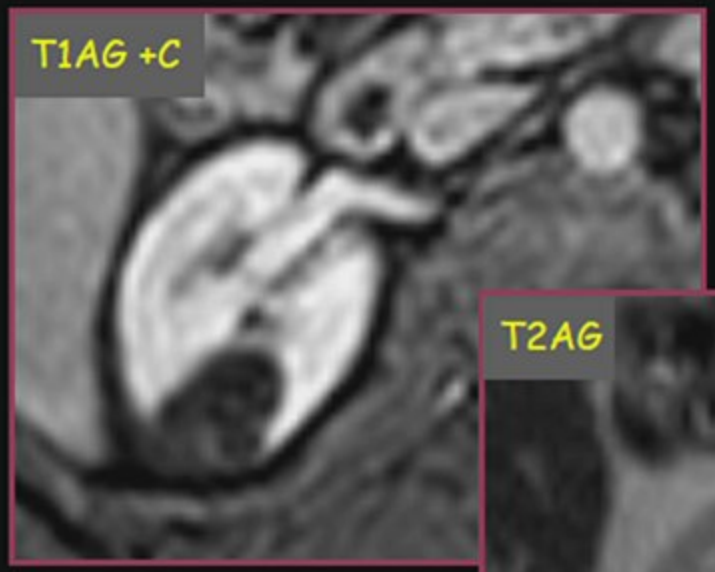


İnce septasyon +

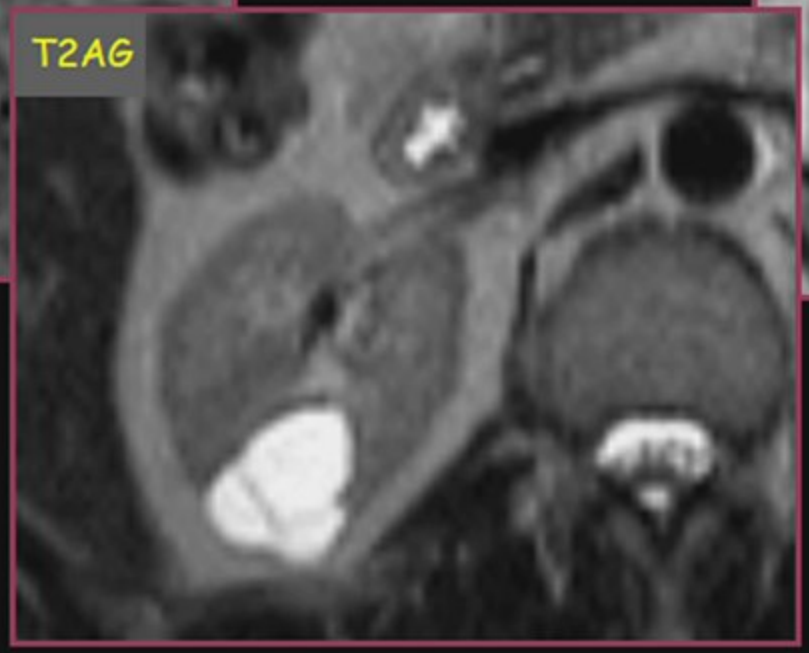


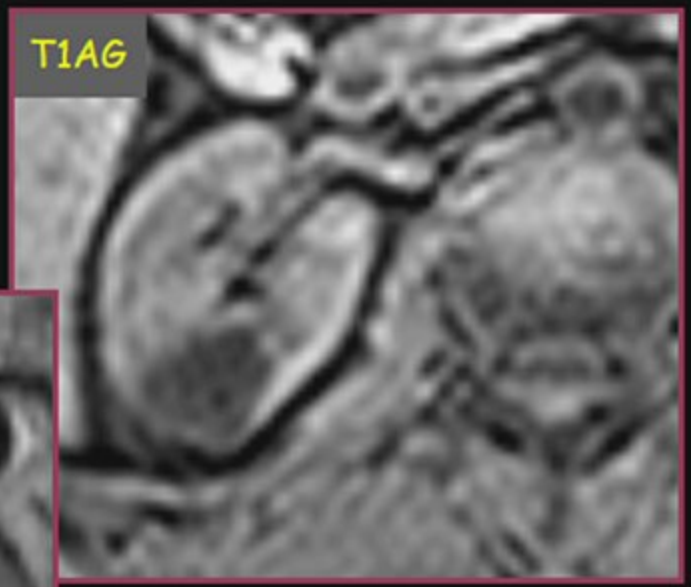


Bosniak Sınıf 2 Kist

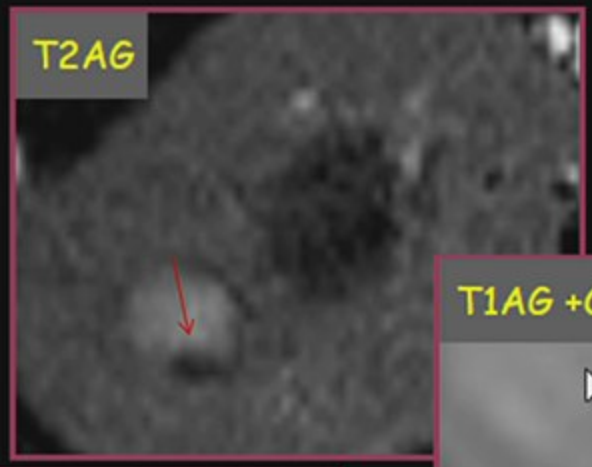


İnce septasyon +

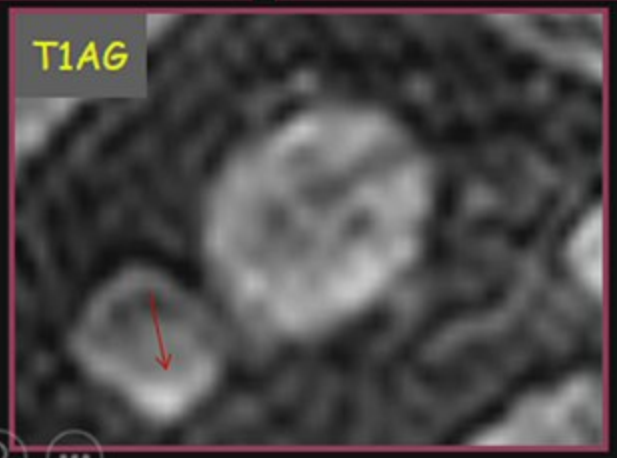




Bosniak Sınıf 2 Kist - Sıvı/sıvı seviyesi +/-

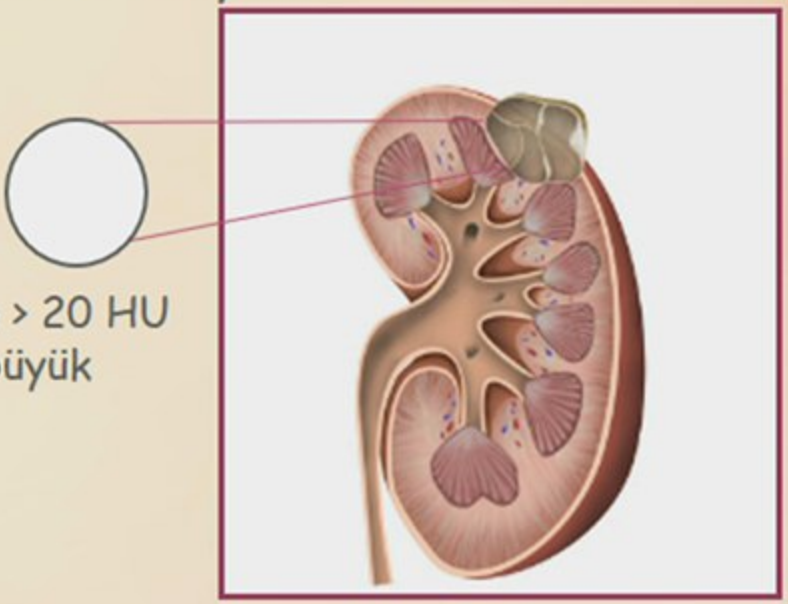


Hemorajik kist < 3 cm



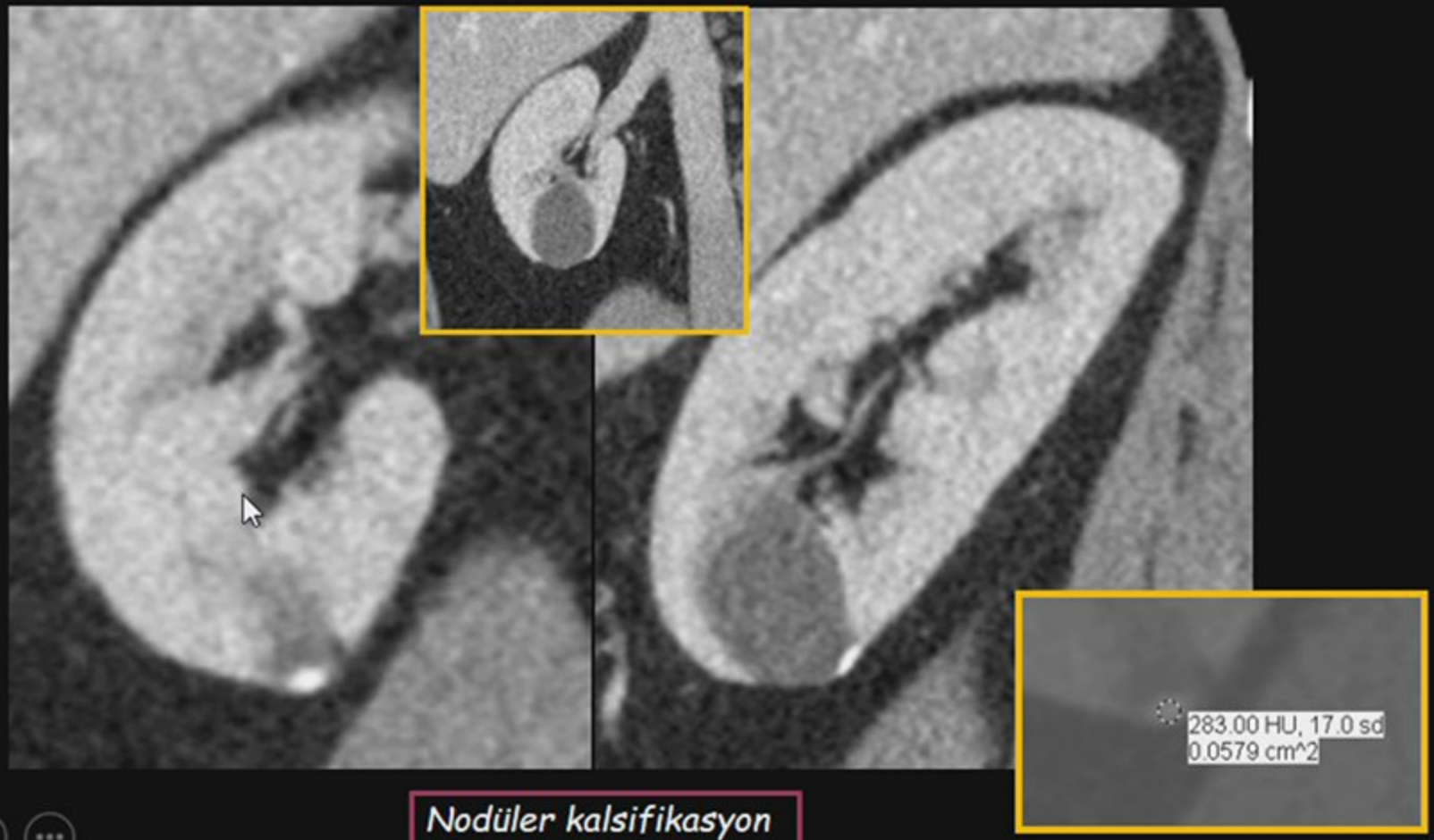
Bosniak Sınıf 2F Kist - FOLLOW-UP

- Minimal komplike kistik lezyonlardır.
  - İnce duvarlı, ince çok sayıda septasyon +/-
  - Ölçülebilen kontrastlanma yok !!!
  - Septasyonda ya da duvarda nodüler/kaba kalsifikasyon +/-
  - 3 cm'den büyük hiperdens/hemorajik kist



Hemorajik > 20 HU
3 cm'den büyük

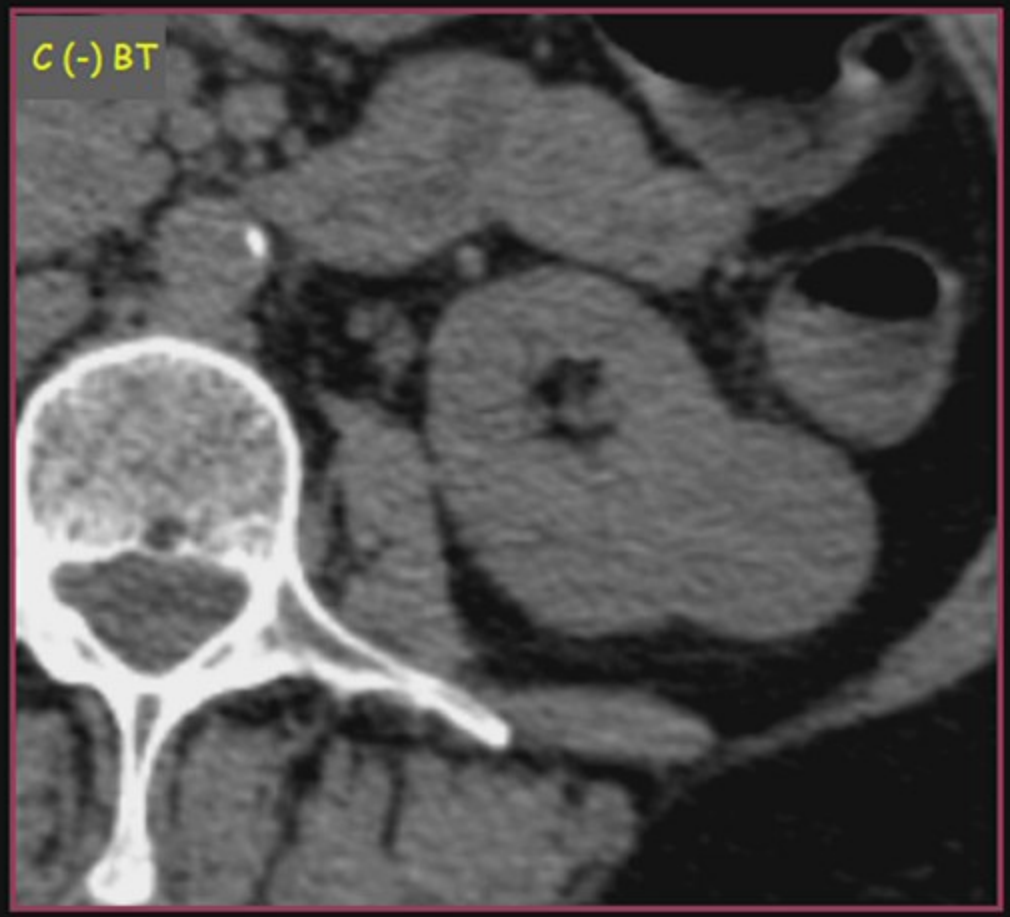
Bosniak Sınıf 2F Kist



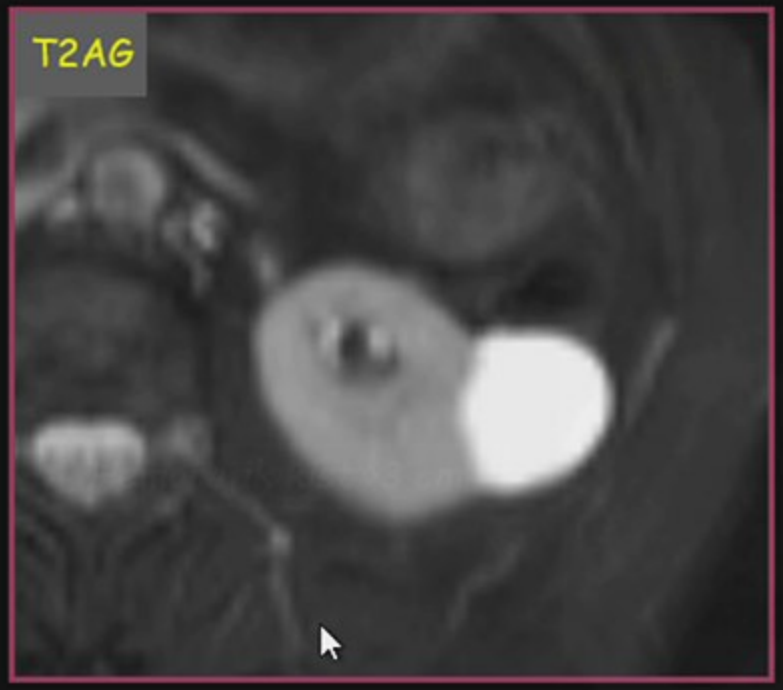
Nodüler kalsifikasyon

Bosniak Sınıf 2F Kist

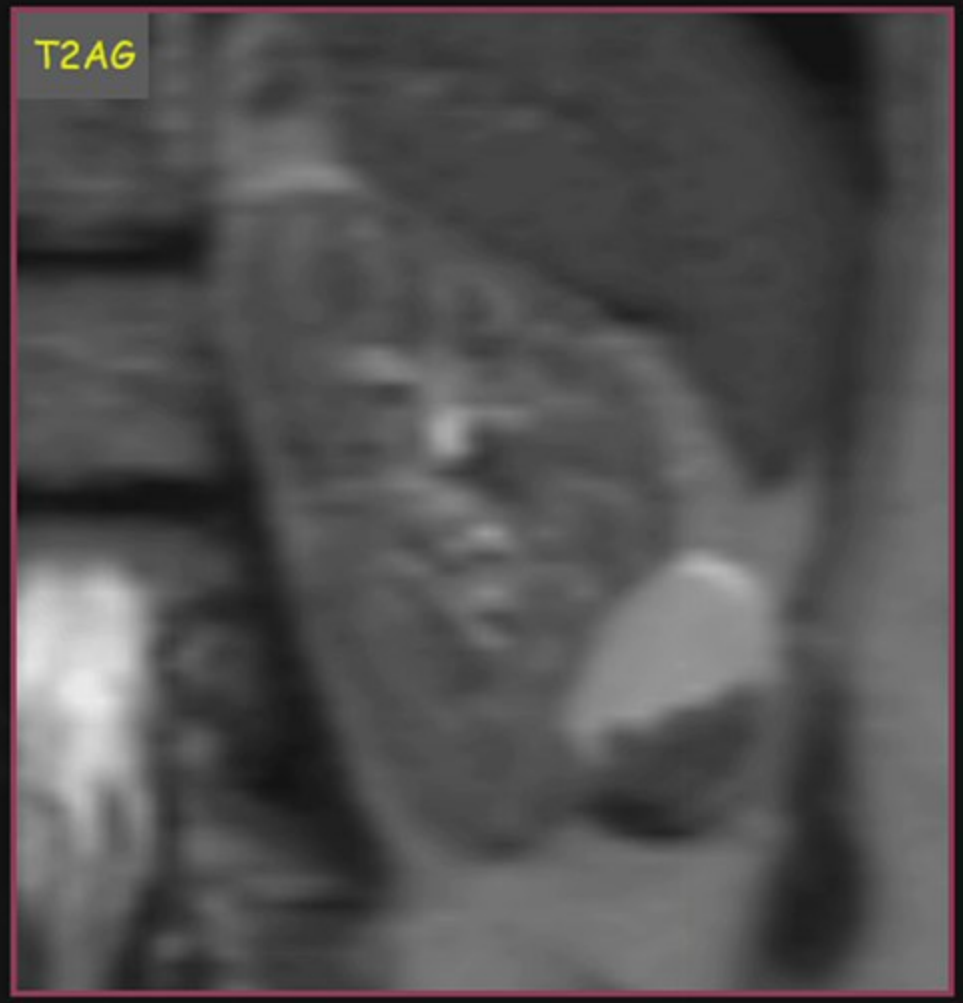
Hemorajik kist >3 cm



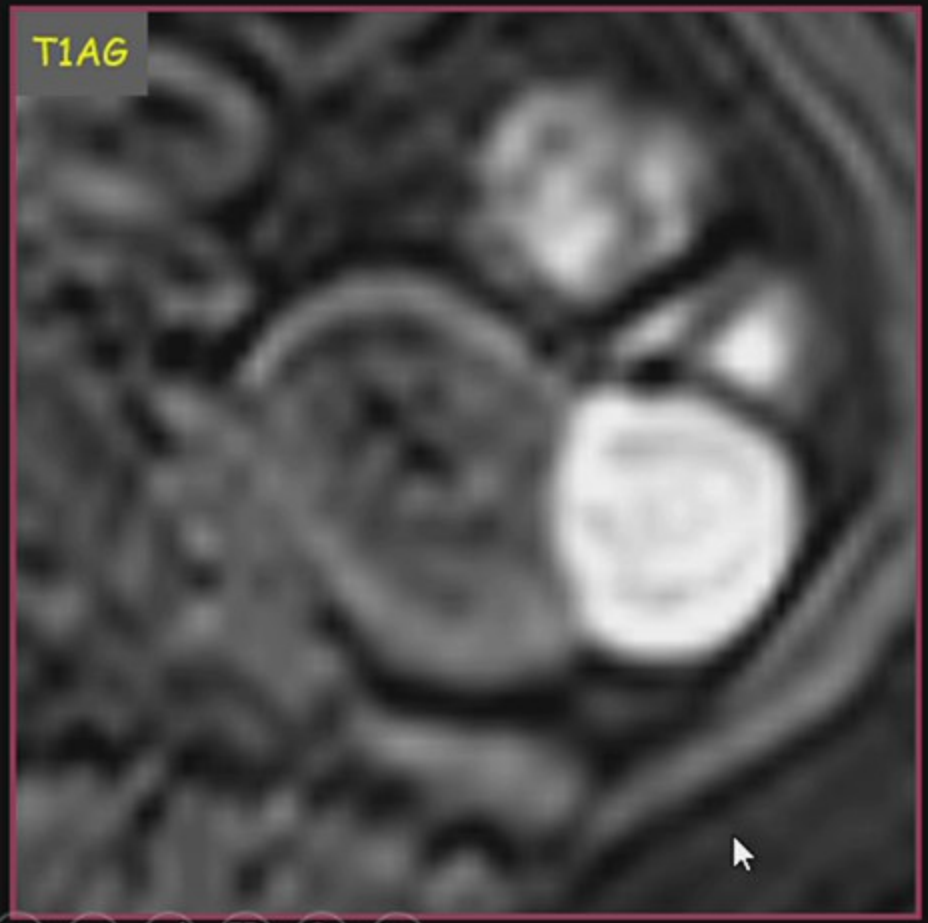
Bosniak Sınıf 2F Kist

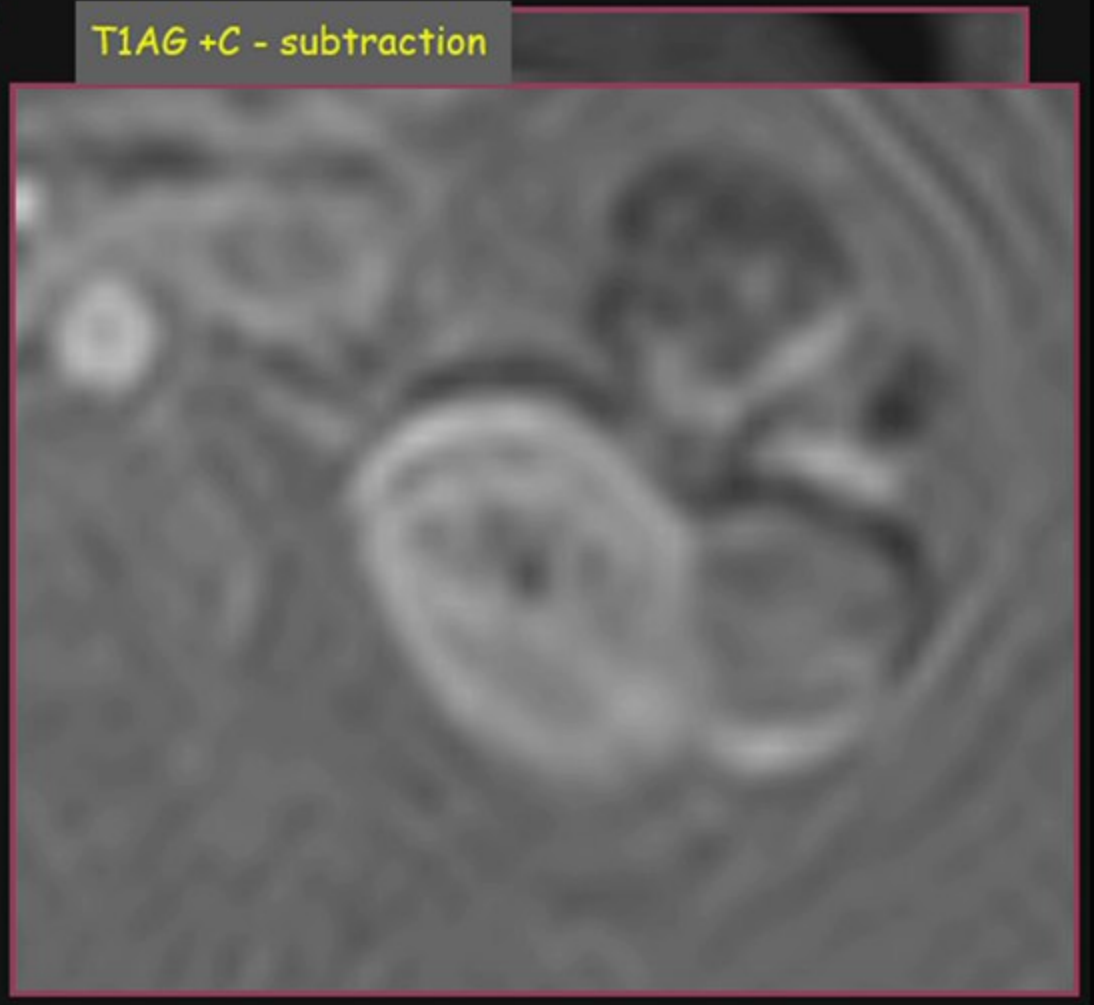


Hemorajik kist >3 cm



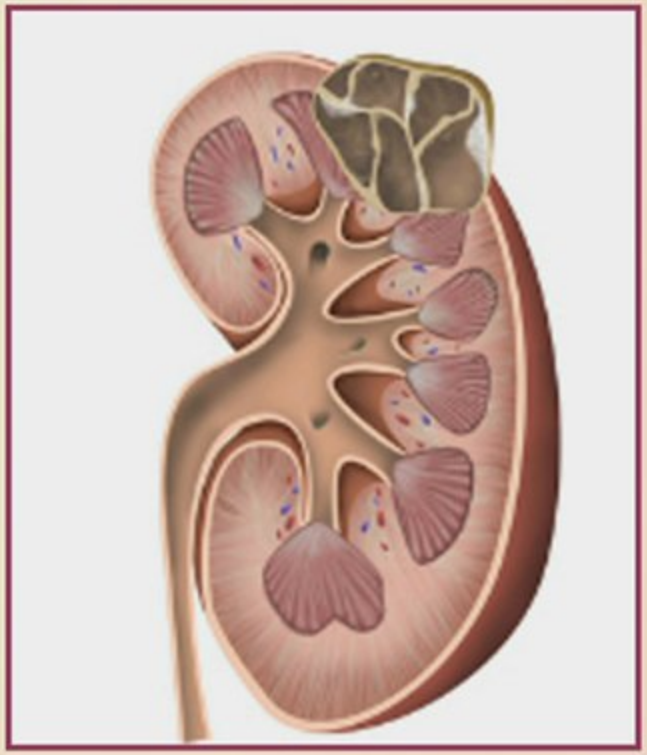
Bosniak Sınıf 2F Kist



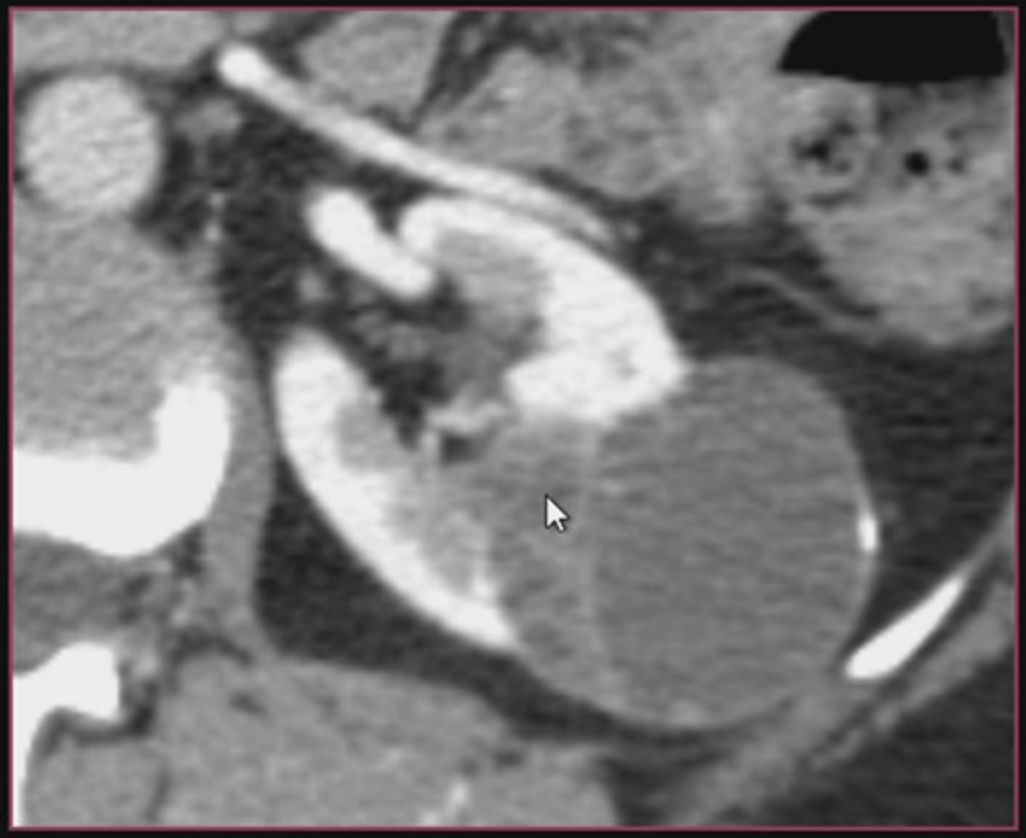


Bosniak Sınıf 3 Kist

- Komplike kistik lezyonlardır.
  - İnce/ kalın duvarlı, ince/kalın - az/çok sayıda septasyon +/-
  - Ölçülebilen kontrastlanma var !!!
  - Kalsifikasyon +/-
  - Solid bileşen yok!!!

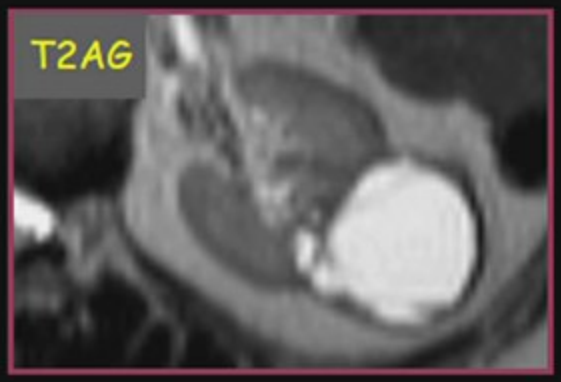


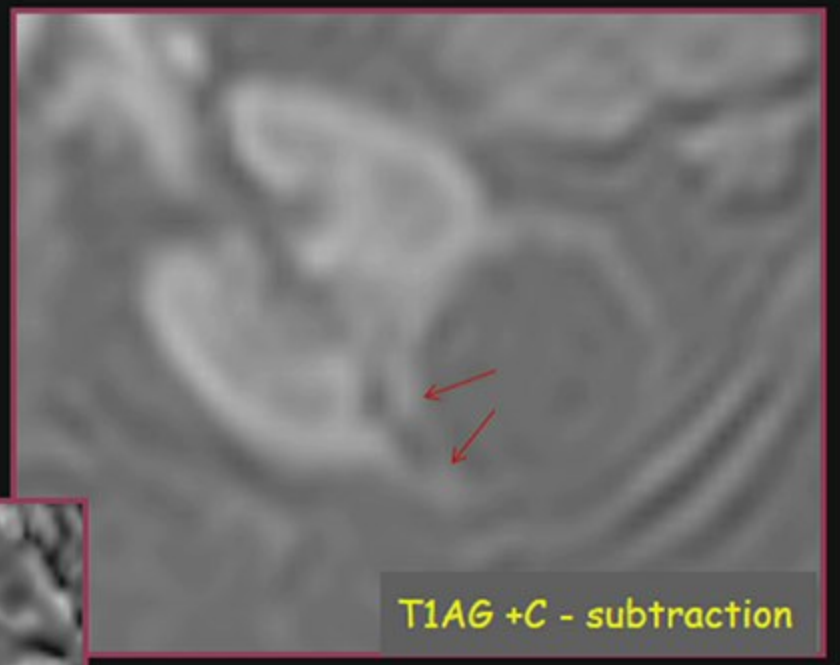
Bosniak Sınıf 3 Kist

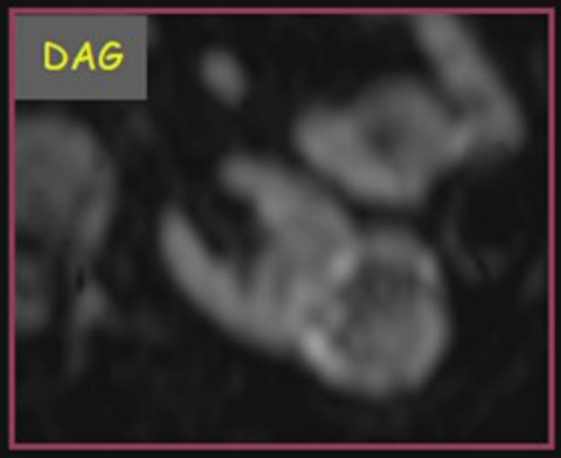


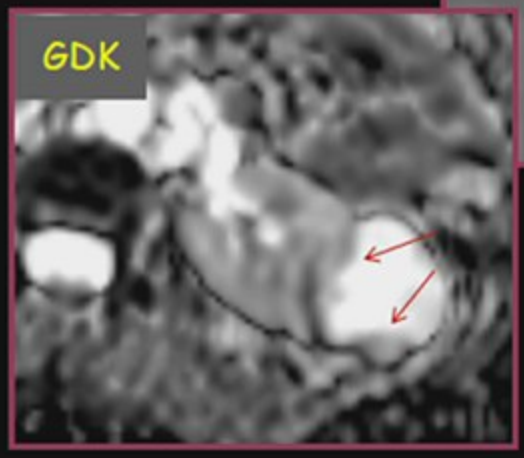
56 y, K, Kistik berrak hücreli karsinom

Bosniak Sınıf 3 Kist



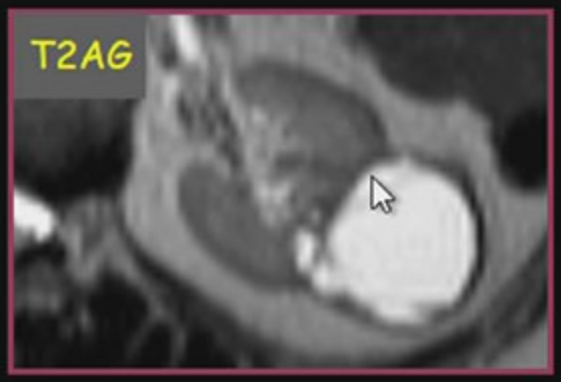


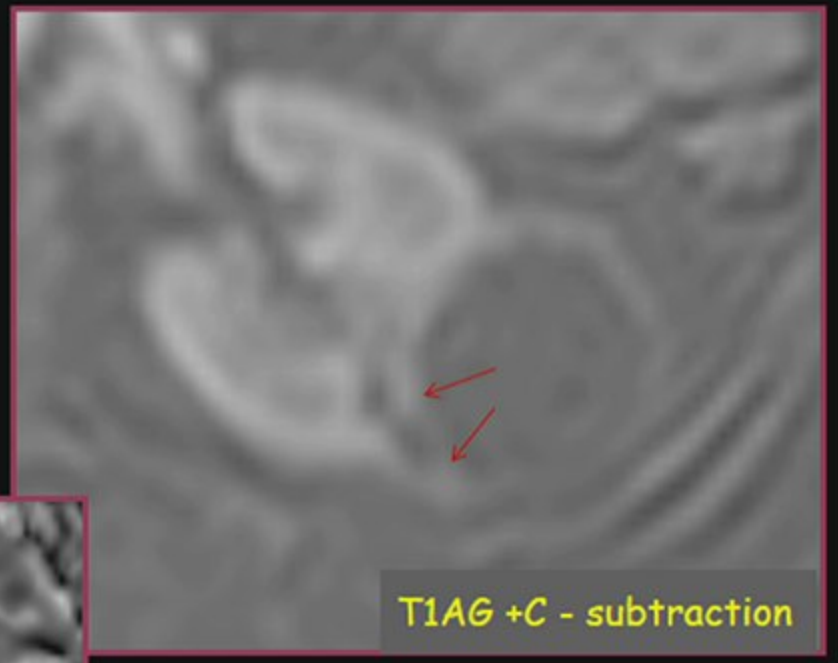


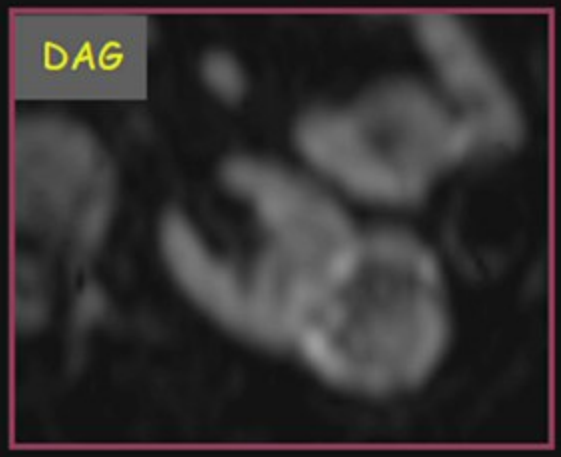


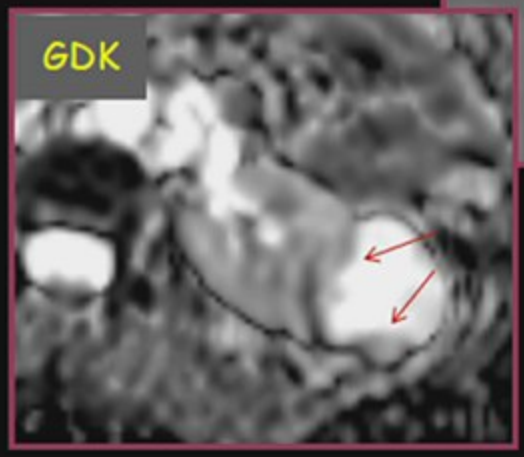
56 y, K, Kistik berrak hücreli karsinom

Bosniak Sınıf 3 Kist



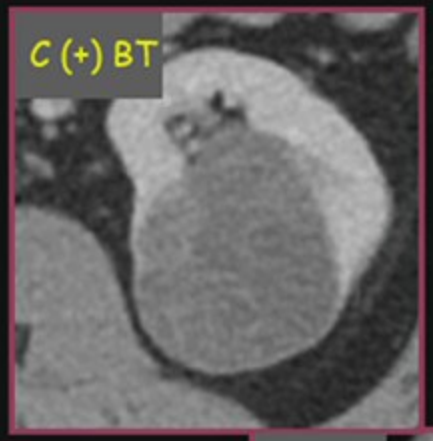


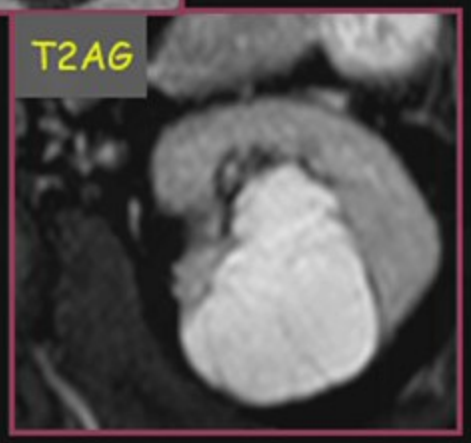


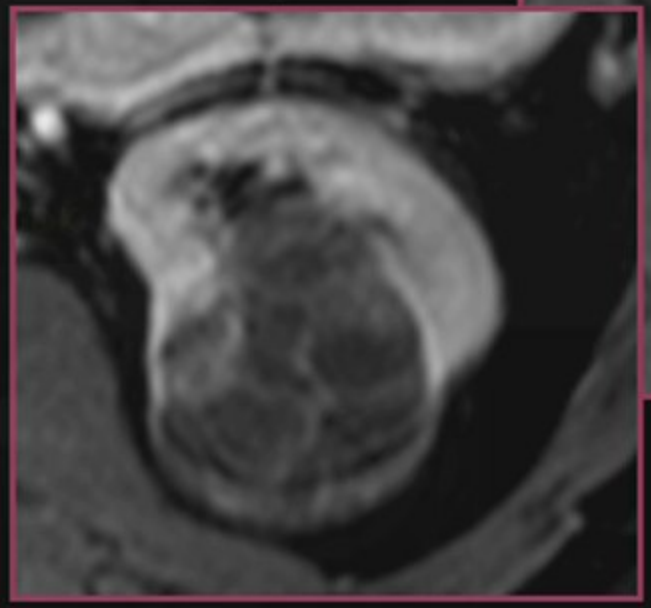


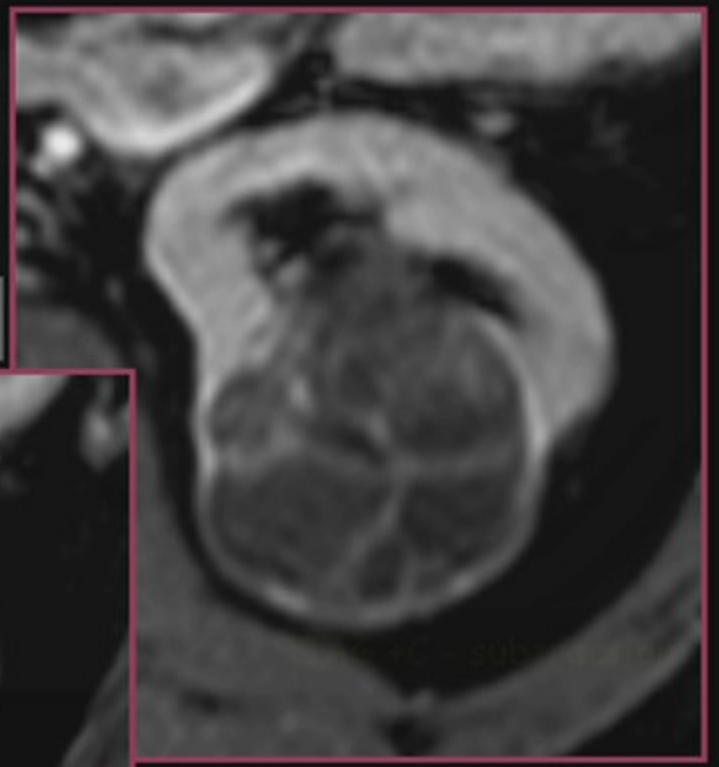
56 y, K, Kistik berrak hücreli karsinom

Bosniak Sınıf 3 Kist





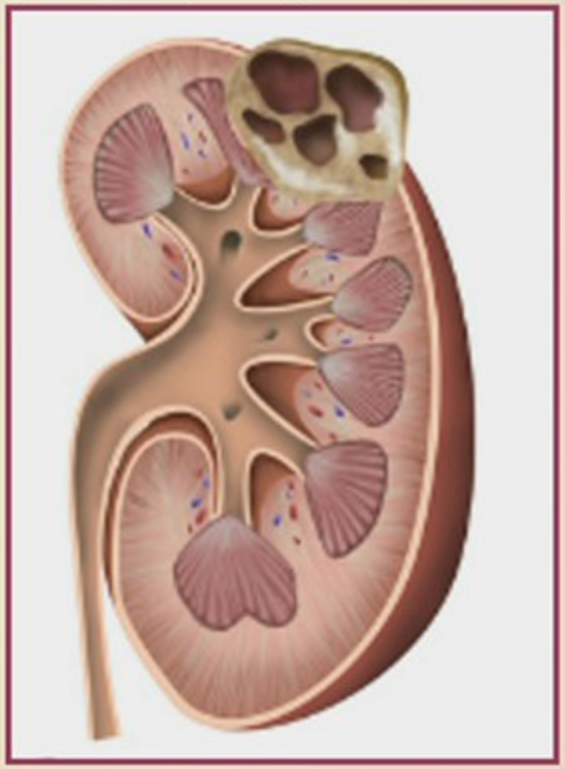




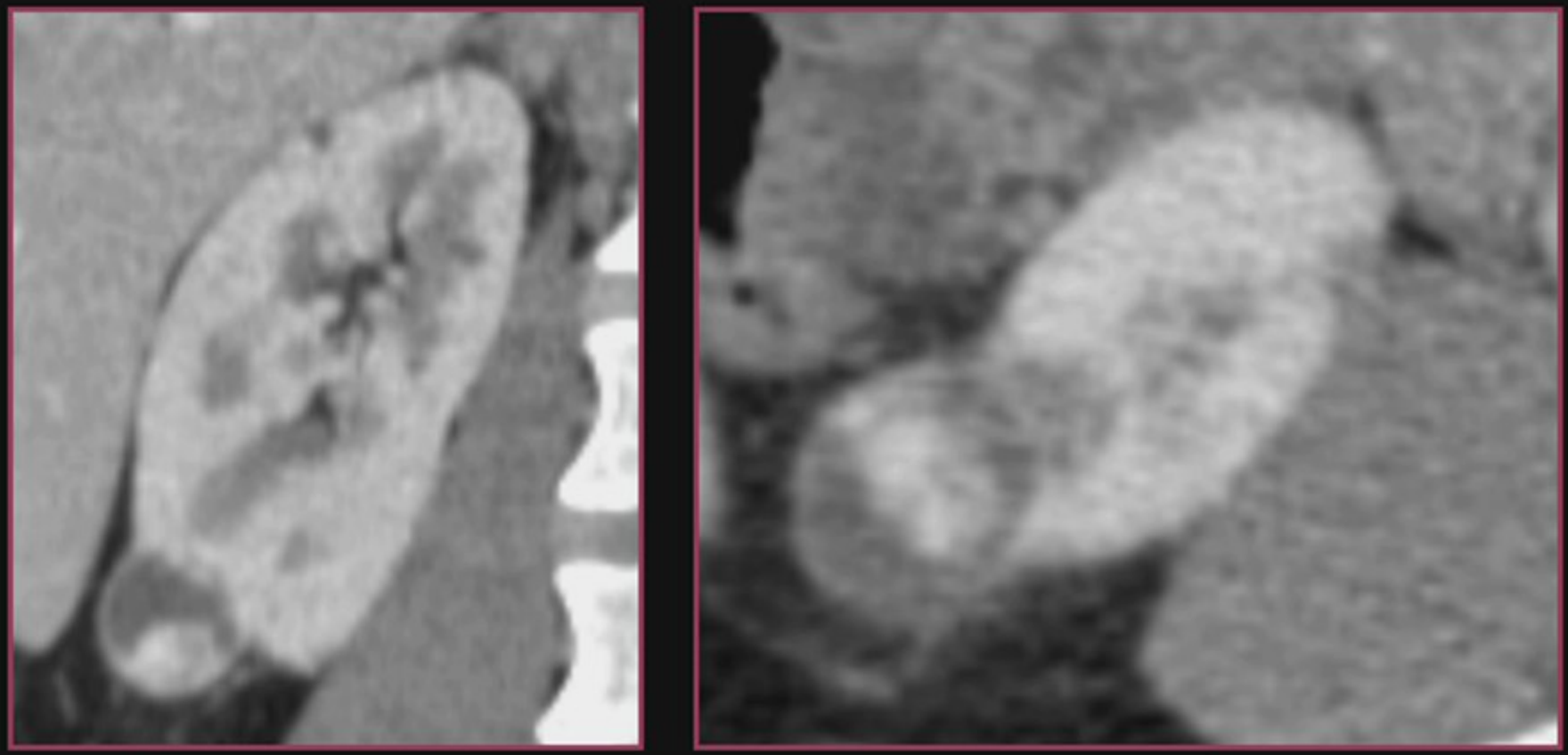
39 y, E, sol böbrek kistik berrak hücreli karsinom (pT1b)

Bosniak Sınıf 4 Kist

- Malign özelliklerde kistik kitle
  - İnce/ kalın duvarlı, ince/kalın - az/çok sayıda septasyon +/-
  - Ölçülebilen kontrastlanma var !!!
  - Kalsifikasyon +/-
  - Solid bileşen var!!!

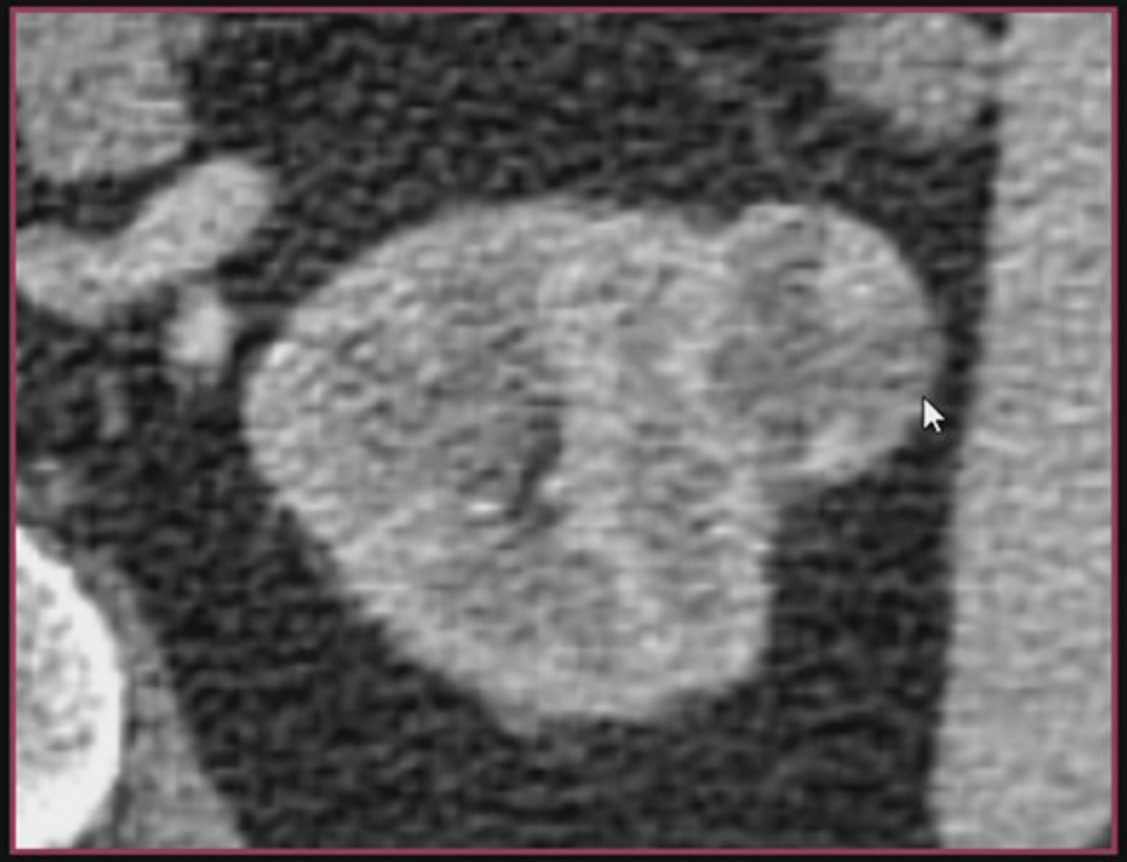


Bosniak Sınıf 4 Kist



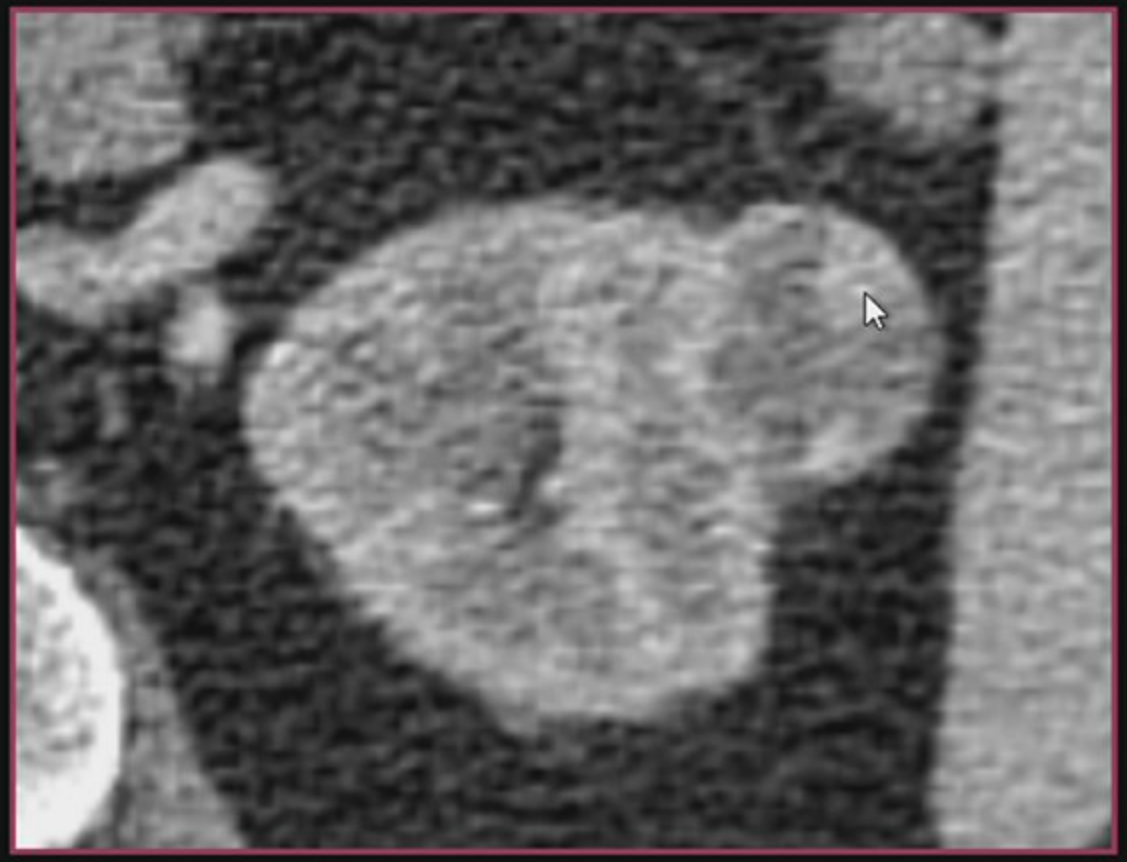
39y, E, VHL – Kistik berrak hücreli karsinom

Bosniak Sınıf 4 Kist



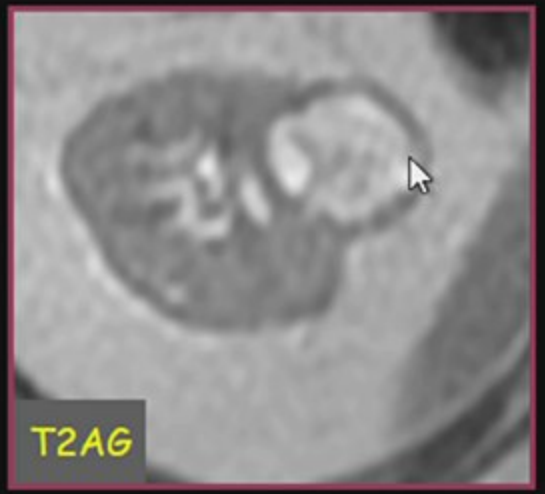
51y, K – Kistik berrak hücreli karsinom

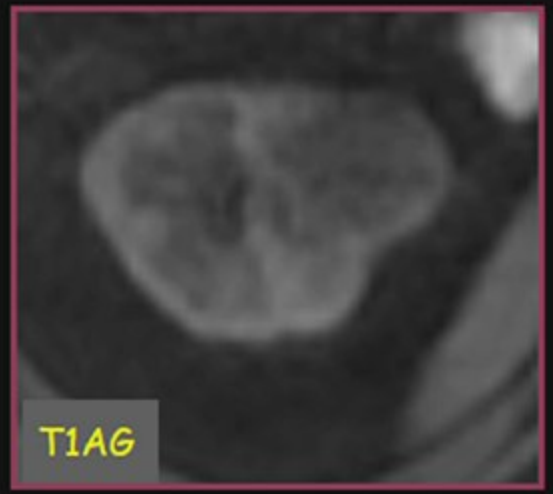
Bosniak Sınıf 4 Kist

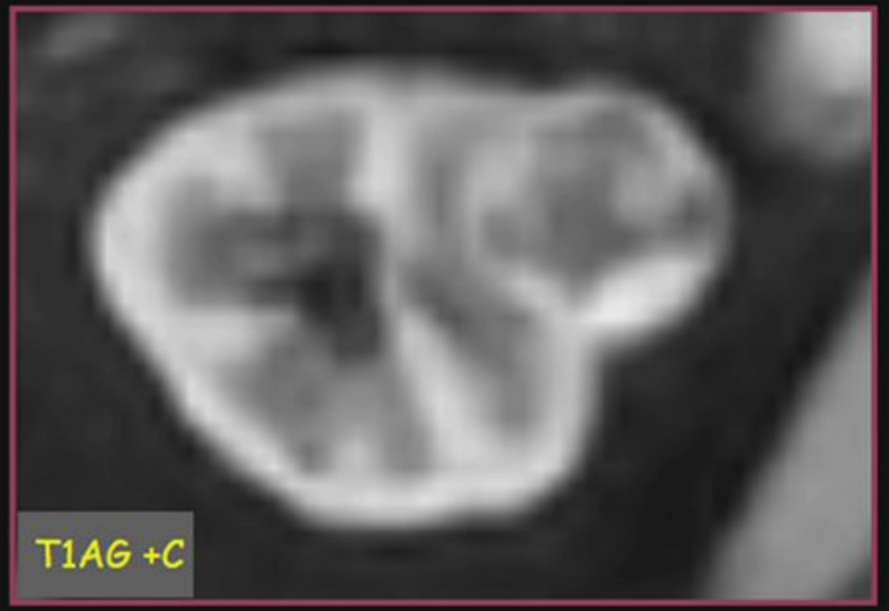


51y, K – Kistik berrak hücreli karsinom

Bosniak Sınıf 4 Kist







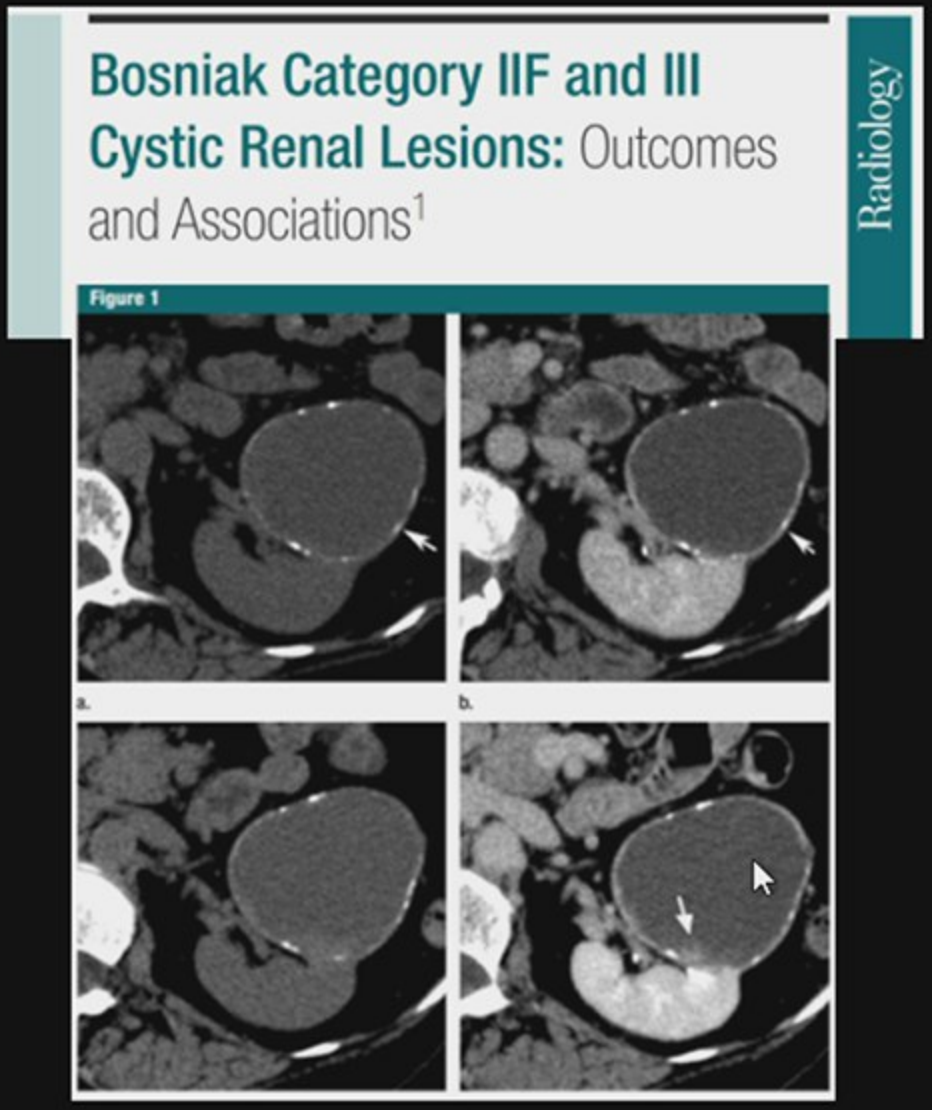
51y, K – Kistik berrak hücreli karsinom

Bosniak sınıflaması;

- Retrospektif
- 69 IIF, 144 III

- Bosniak 2F ve 3 kistlerin %13'ünde progresyon (+)

Smith AD et al, Radiology, 2012



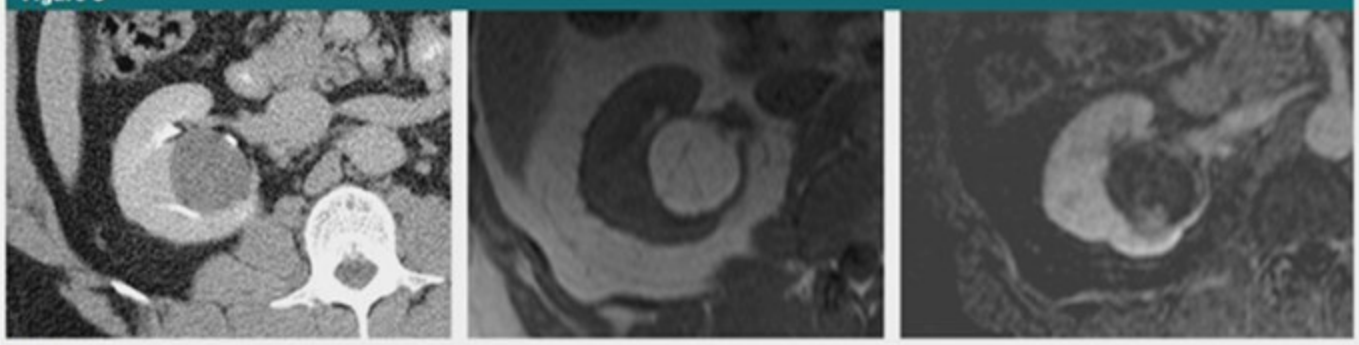
Bosniak sınıflaması;

Radiology

Follow-up for Bosniak Category 2F Cystic Renal Lesions[1]

- Retrospektif
- 156 IIF
- Bosniak 2F kistlerin %11'inde progresyon (+)
- Progresyon: 6 ay – 3,2 yıl

Figure 3

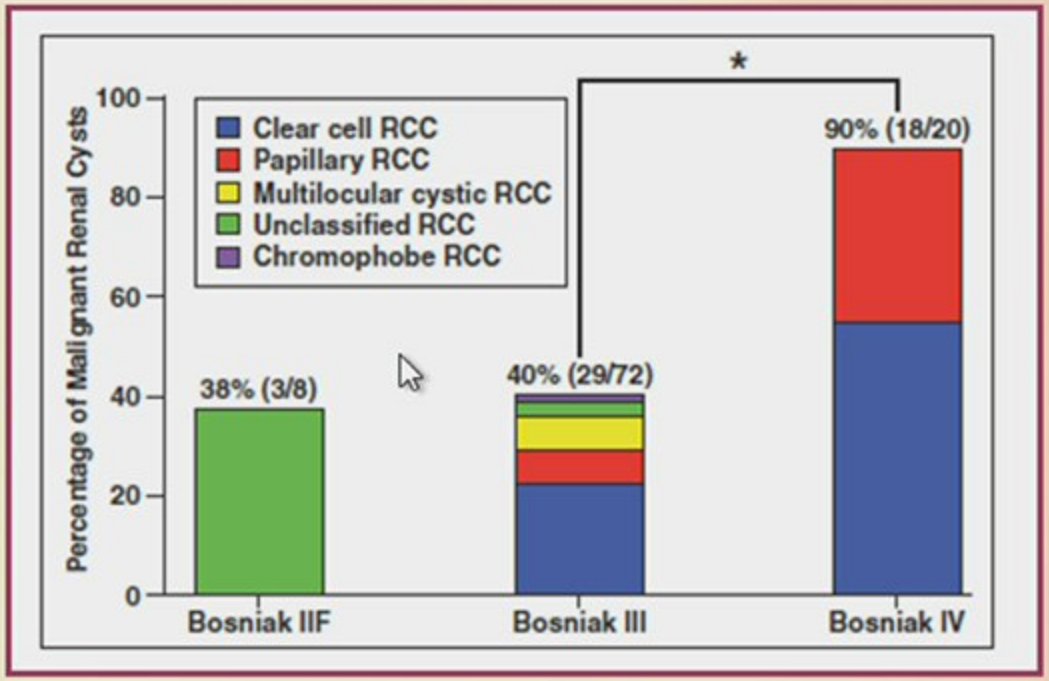


Hindman NM et al, Radiology, 2014

Bosniak sınıflaması;

- Retrospektif

- Malignite;
  - Bosniak 2F - % 38
  - Bosniak 3 - % 40
  - Bosniak 4 - % 90



- Tedaviye bağlı major komplikasyon
  - Cerrahi - % 19
  - RF ablasyon - % 5

Bosniak 3 kistler özellikle ileri yaş – komorbiditesi (+) hastalarda izlenmeli midir??

Smith AD et al, AJR, 2015

ACR' nin 2014 önerileri;

- Bosniak sınıf 2F kistler – Radyolojik izlem;
  - BT – MRG
  - Her 6 ayda bir, 5 yıl boyunca, toplam 10 tetkik ile
  - Mümkünse kontrastlı
- Bosniak sınıf 3 ve 4 kistler
  * Cerrahi tedavi
  * RF-ablasyon
  * Kriyoablasyon

Bosniak Sınıflaması

- Bosniak 3-4; Patolojik olarak en sık saptanan kistik kitleler
  i. Multilokuler kistik nefroma
  ii. Multilokuler kistik renal hücreli karsinom
  iii. Kistik berrak hücreli karsinom
  iv. Papiller renal hüreli karsinom

EN SIK KİSTİK BÖBREK KİTLELERİ

Multiloküler kistik nefroma

- Non-herediter benign kistik kitle
- KPDN------spektrum---- MKN
- Bimodal yaş dağılımı
  - Çocuk
    - 3 ay – 4 yaş, KPDN, Erkek
  - Erişkin
    - 40 - 60 yaş, MKN, Kadın
- BT, MRG
  - İnce kapsüllü, septal ve kapsüler boyanma (+)
  - Fibröz kapsül;T1AG – T2AG hipointens
  - % 78 Bosniak sınıf 3 kist*

*Silver IMF et al, Radiographics, 2008, * Lane BR et al, Urology, 2008*

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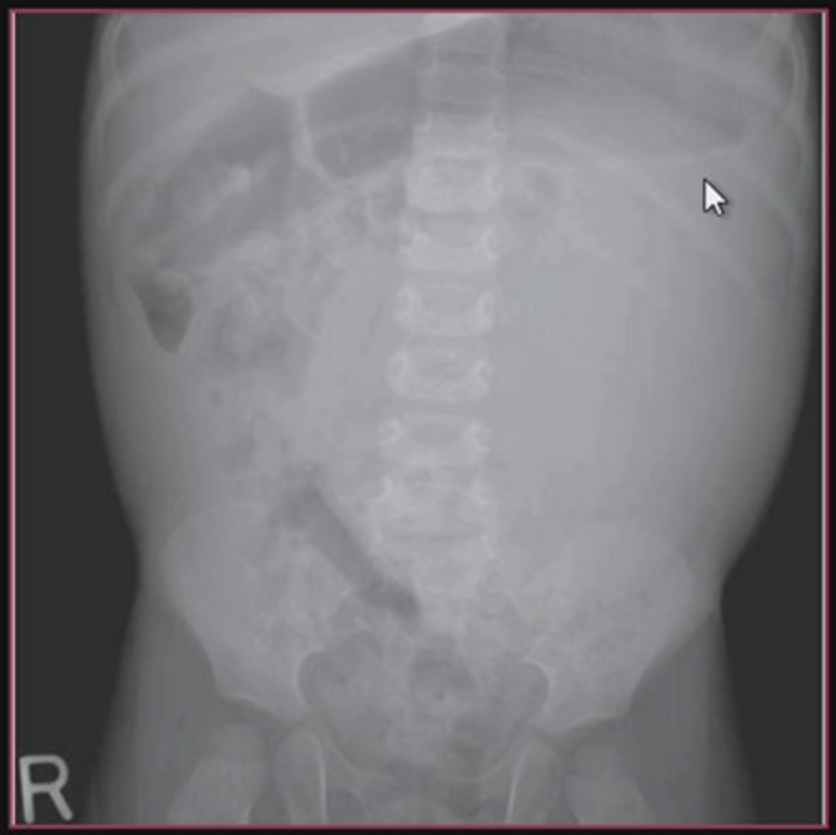
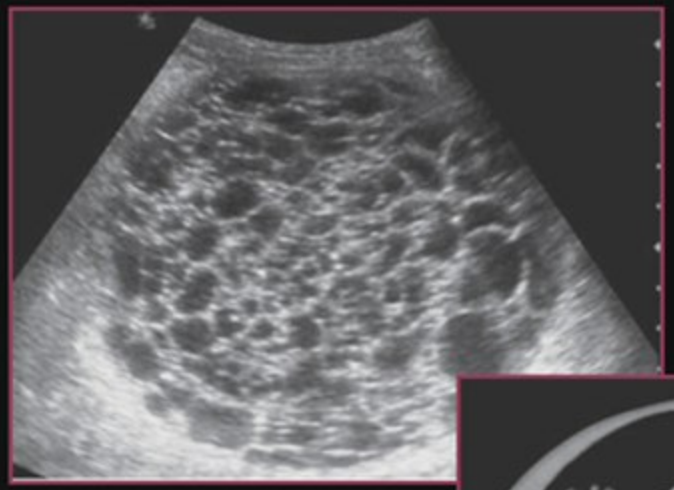
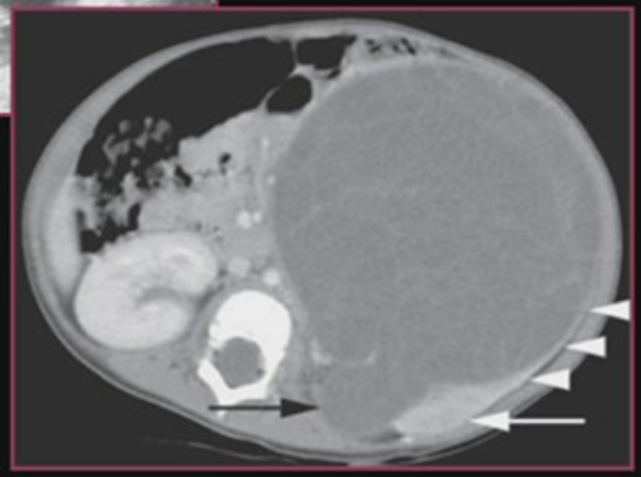
Multiloküler kistik nefroma



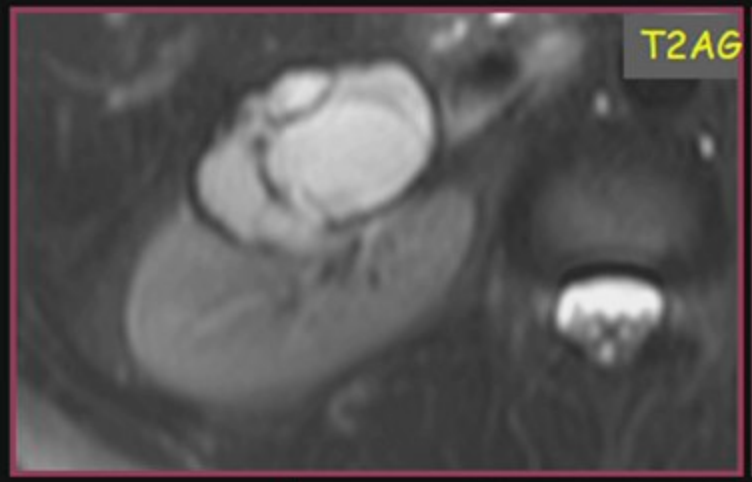


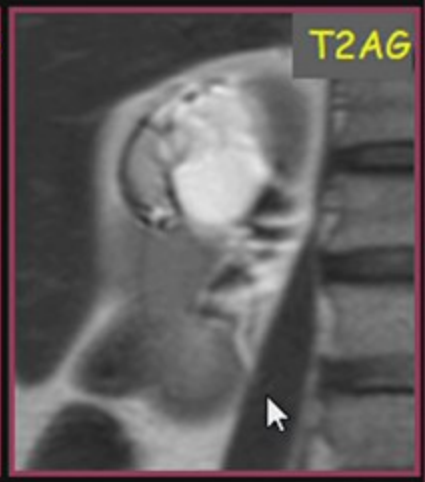
3y, E
Karında şişlik*

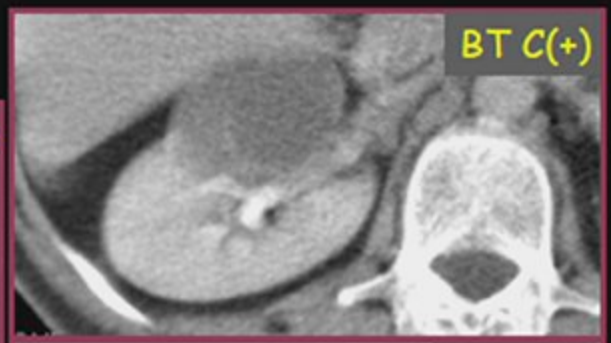


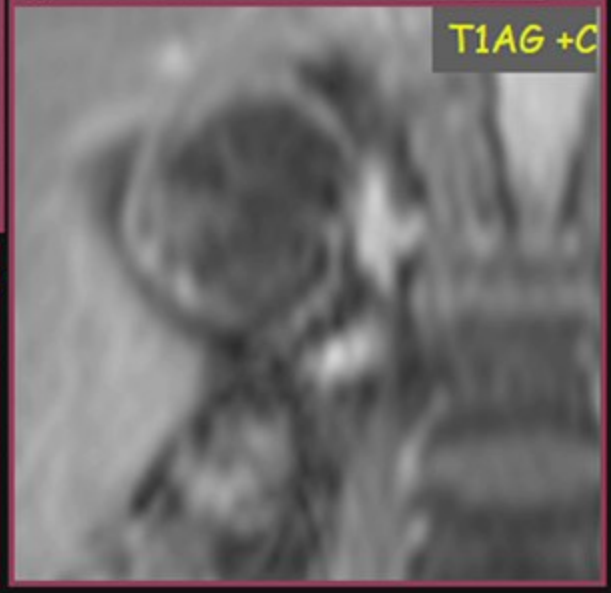
*Silver TMF et al., Radiographics, 2008 (Kistik parsiyal diferansiye nefroblastoma)**

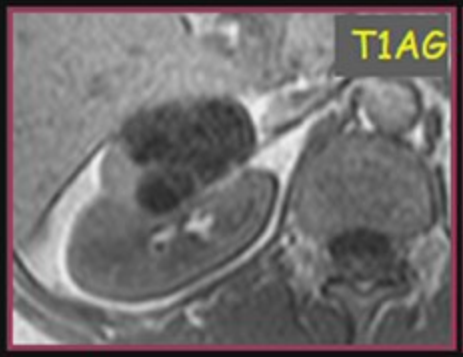
Multiloküler kistik nefroma

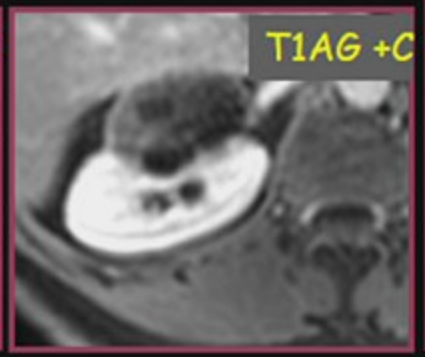






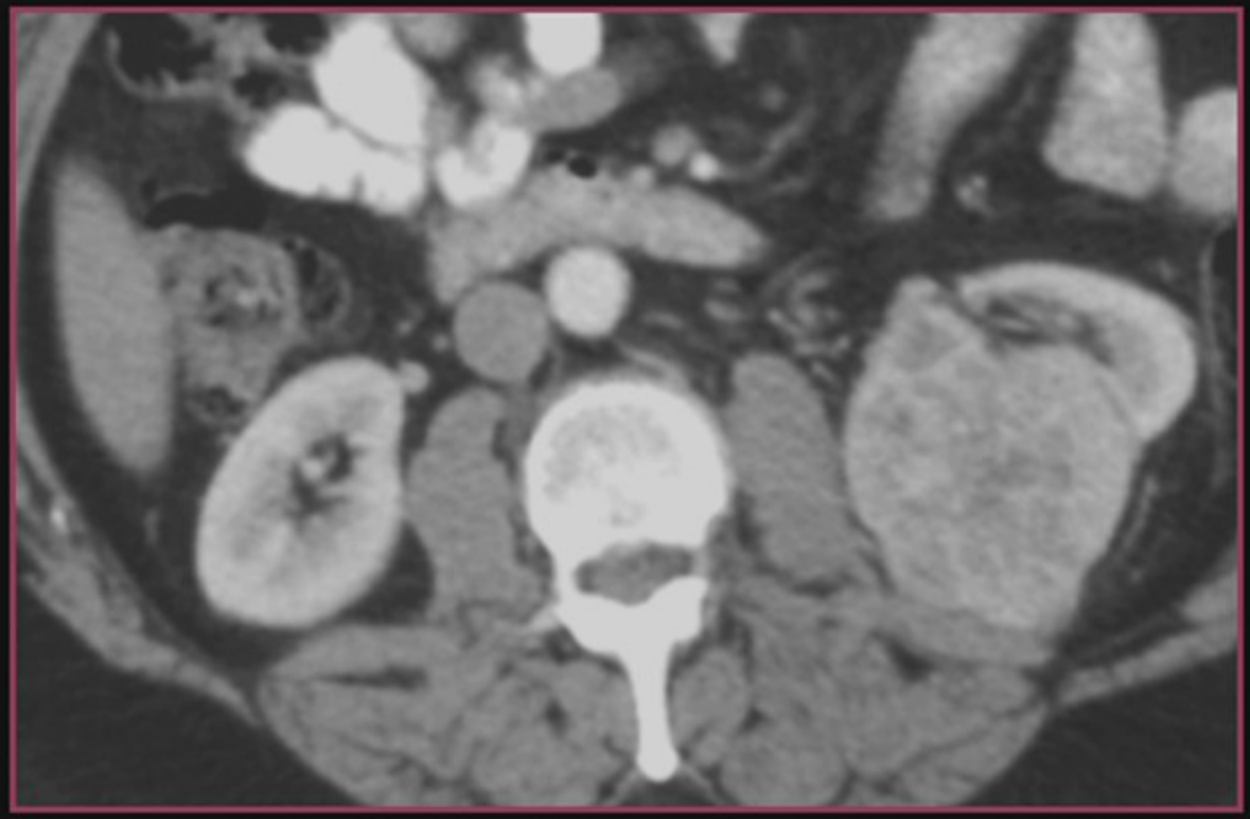






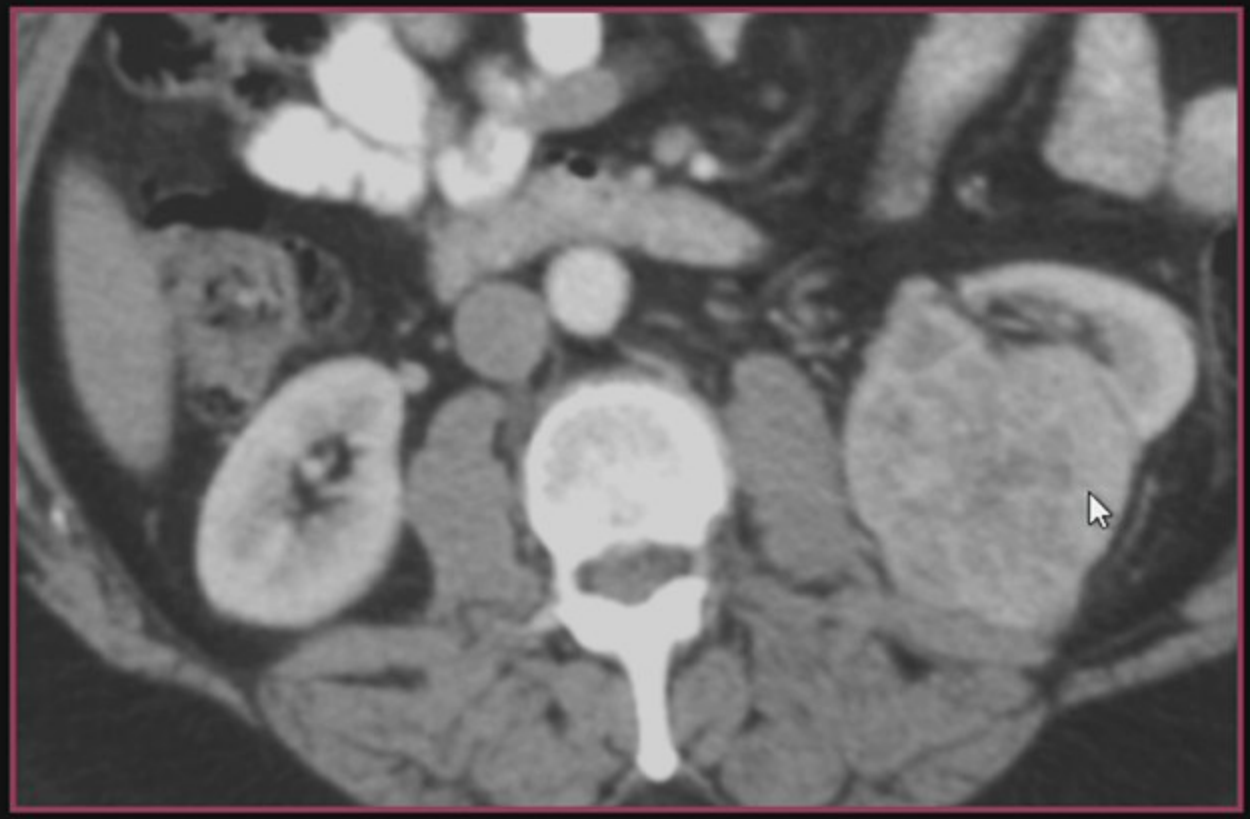
57 y, K, sağ böbrek Multiloküler kistik nefroma, Bosniak sınıf 3

Multiloküler kistik nefroma



57 y, E, sol böbrek Multiloküler kistik nefroma, Bosniak sınıf 4

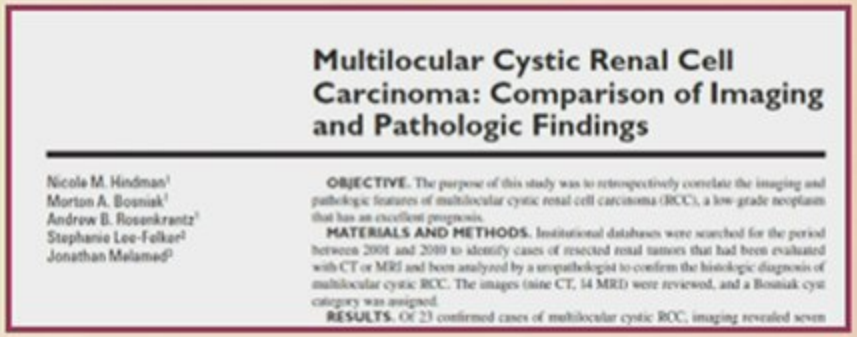
Multiloküler kistik nefroma



57 y, E, sol böbrek Multiloküler kistik nefroma, Bosniak sınıf 4

Multiloküler kistik renal hücreli karsinom

- Düşük patolojik dereceli malign kistik tümörler
- Cerrahi sonrası prognozu çok iyi
- Nadir, tüm RHK; % 2,3 – 3,1



Multilocular Cystic Renal Cell Carcinoma: Comparison of Imaging and Pathologic Findings

Nicola M. Hindman[1]
Morton A. Bosniak[1]
Andrew B. Rosenkrantz[2]
Stephanie Lee-Felker[1]
Jonathan Melamed[3]

OBJECTIVE. The purpose of this study was to retrospectively correlate the imaging and pathologic features of multilocular cystic renal cell carcinoma (RCC), a low-grade neoplasm that has an excellent prognosis.

MATERIALS AND METHODS. Institutional databases were searched for the period between 2001 and 2010 to identify cases of resected renal tumors that had been evaluated with CT or MRI and been analyzed by a uropathologist to confirm the histologic diagnosis of multilocular cystic RCC. The images (nine CT, 14 MRI) were reviewed, and a Bosniak cyst category was assigned.

RESULTS. Of 23 confirmed cases of multilocular cystic RCC, imaging revealed seven

Cyst Category	No. of Lesions	Age (y)		Male-to-Female Ratio	Size (cm)		No. of Patients With Renal Cell Carcinoma in Same or Other Kidney	Clinical Follow-Up[a]
		Median	Range		Mean	Range		
IIF	7	56	46–83	5:3	3.4	1.5–6.9	2/7	7/7 no metastasis, no recurrence
III	13	55	39–73	5:7	2.7	2–3.4	1/13	12/13 no metastasis, no recurrence; 1/13 lost to follow-up
IV	3	62	50–69	2:1	2.5	1.6–3.6	0/3	3/3 no metastasis, no recurrence
Total		62	39–83	12:11	2.9	1.5–6.9	3/23	22/23 no metastasis or recurrence; 1/23 lost to follow-up

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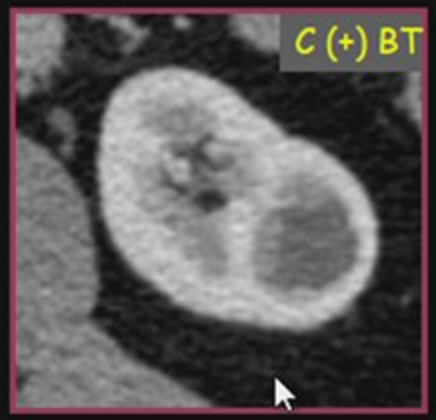
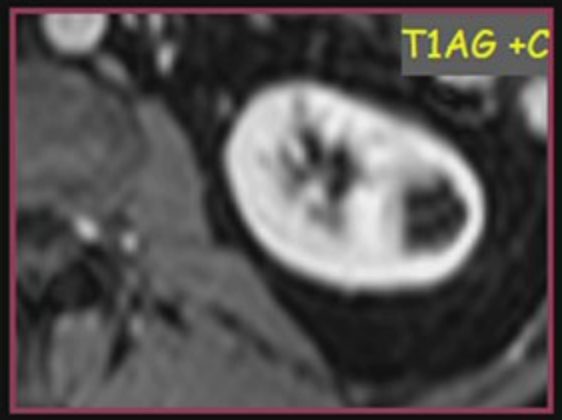
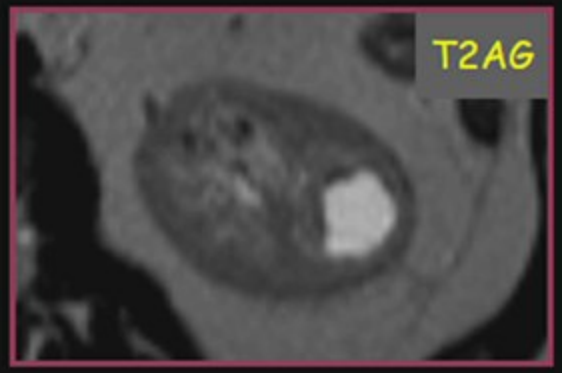
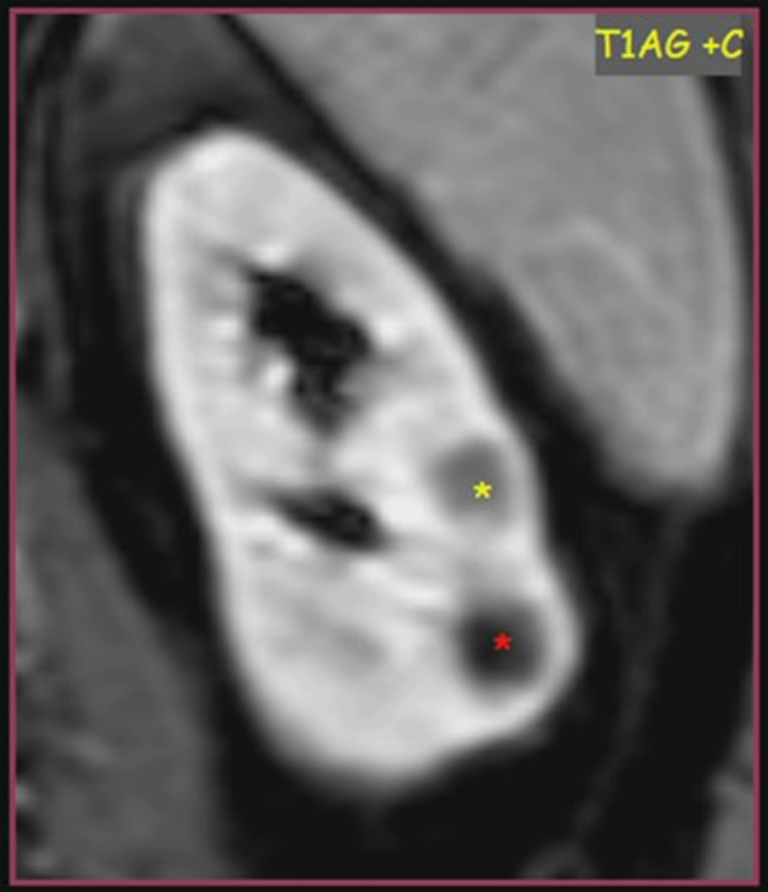
Multiloküler kistik RHK - Bosniak sınıf 2



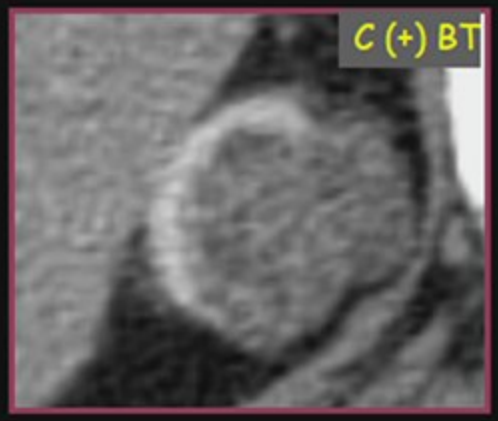


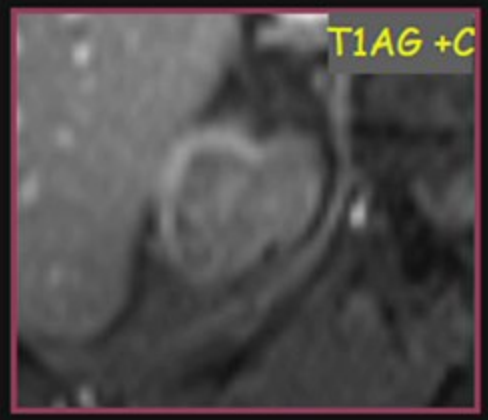


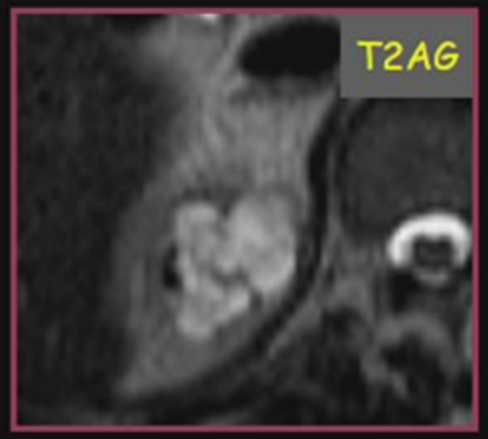


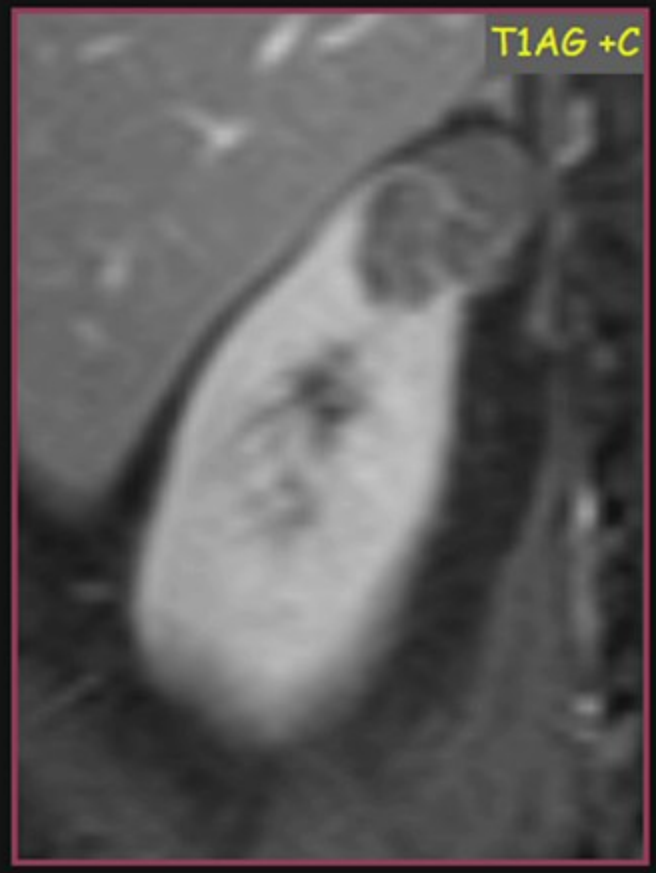
54 y, E, sol böbrek
Kromofob RHK(pT1a)*
ve
Multiloküler kistik RHK
(pT1a)*

Multiloküler kistik RHK - Bosniak sınıf 3









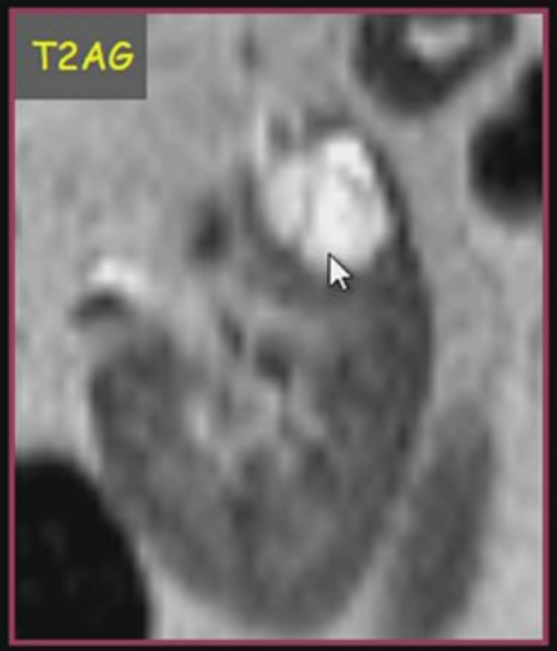
48 y, E, sağ böbrek
Multiloküler kistik RHK
(pT1b)

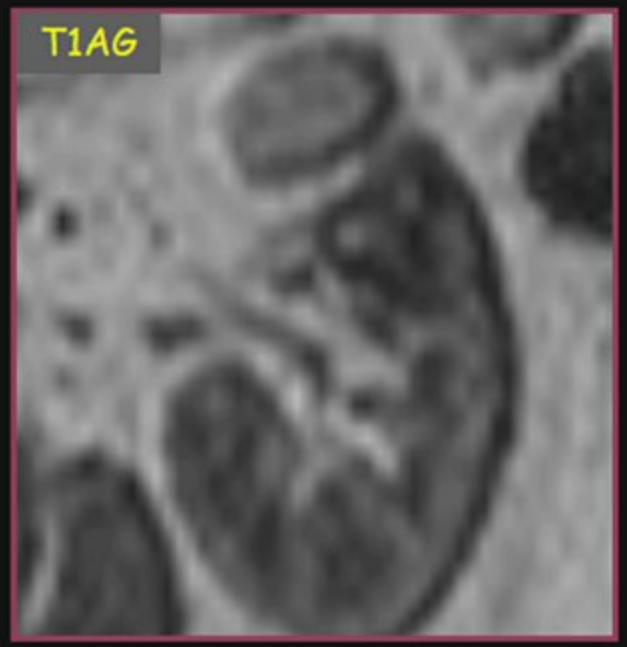
Kistik berrak hücreli karsinom

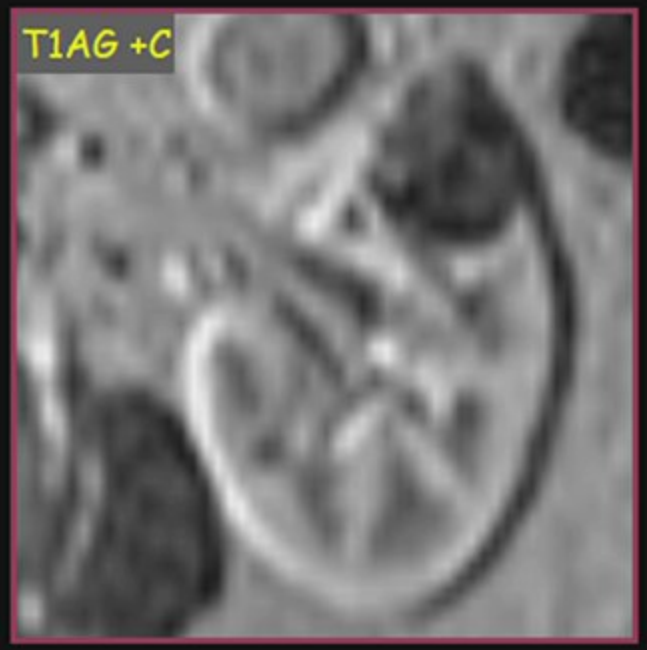
- Berrak hücreli karsinom en sık RHK alt tipi
- Solid ve kistik alt tipleri (+)
- Kistik berrak hücreli karsinom; % 10 (4-15)
- Kalın duvarlı, septa – duvar boyanması, solid bileşen, kalsifikasyon sıktır.
- Çoğunlukla Bosniak sınıf 3 ve 4 kistler

Freire M et al, AJR, 2008

Kistik berrak hücreli karsinom - Bosniak sınıf 3

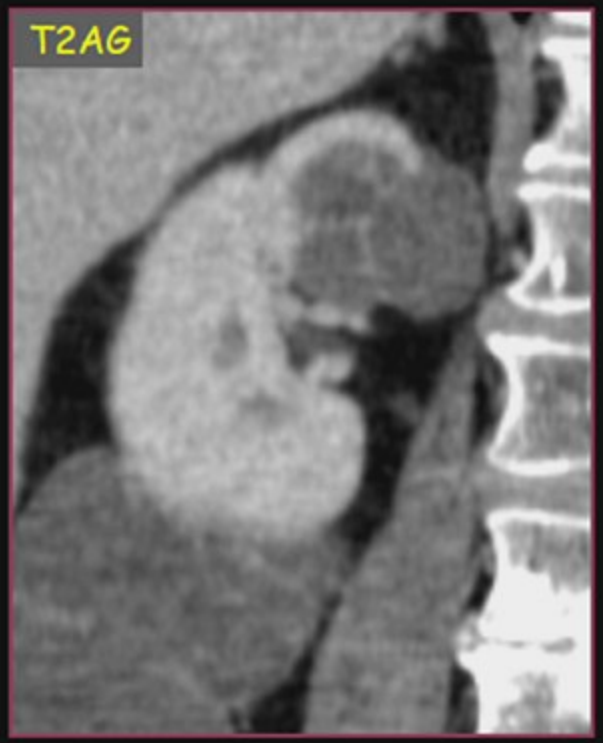


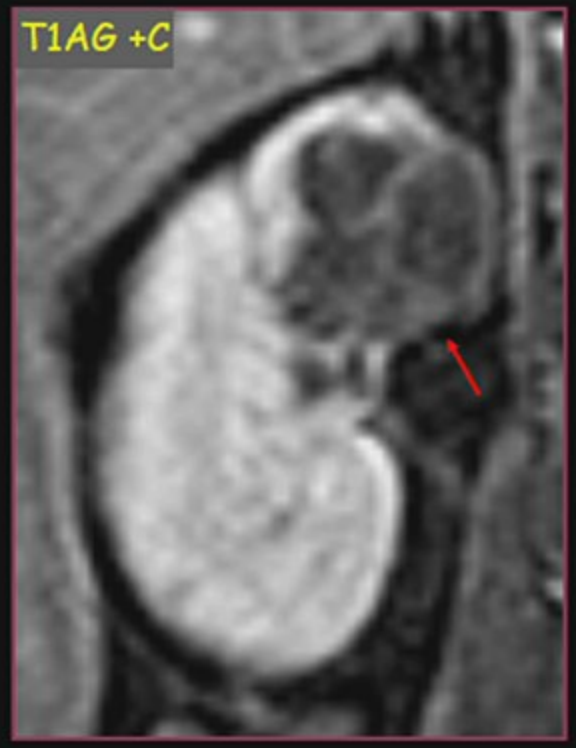




54 y, E, sol böbrek Kistik berrak hücreli karsinom (pT1a)

Kistik berrak hücreli karsinom – Bosniak sınıf 4



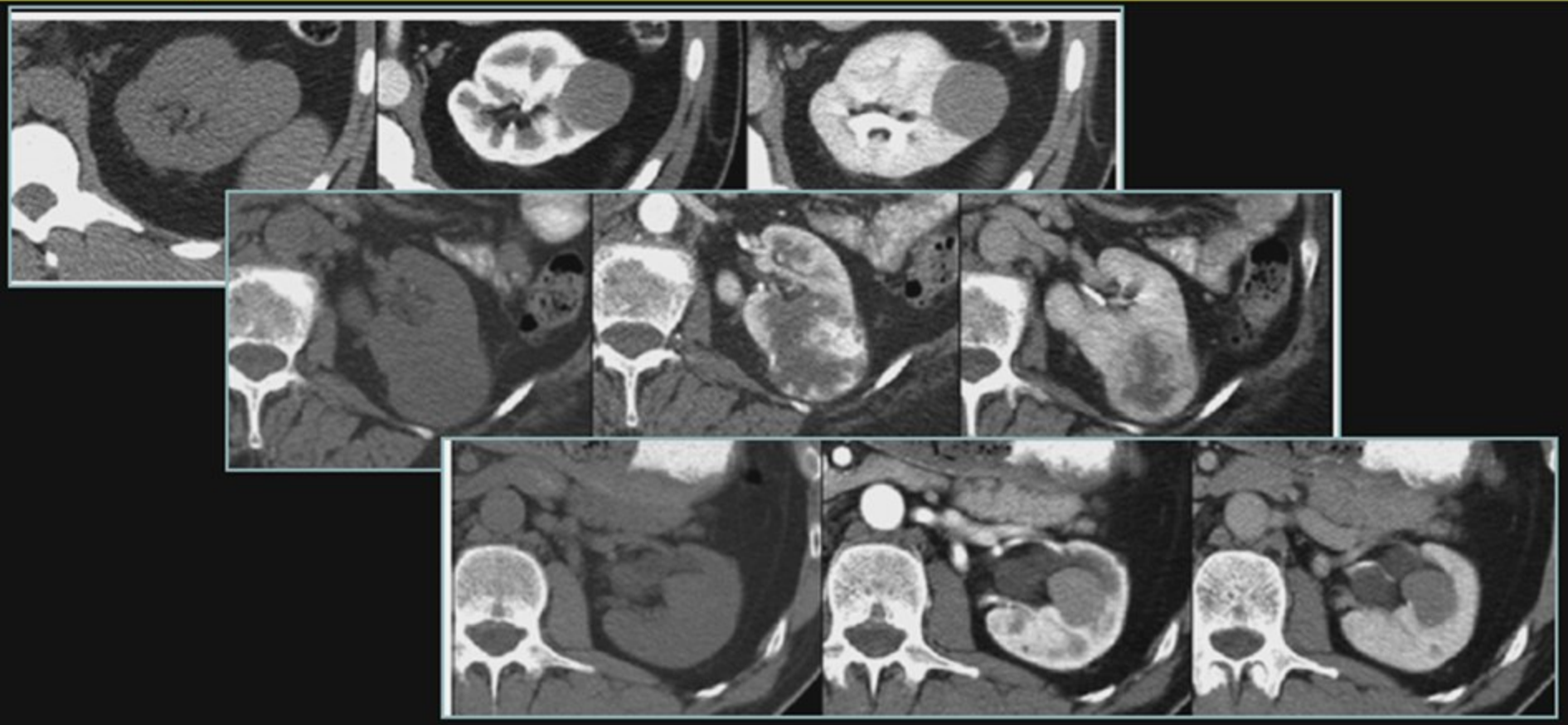


61y, K, Kistik berrak hücreli karsinom (pT1b)

Papiller renal hücreli karsinom

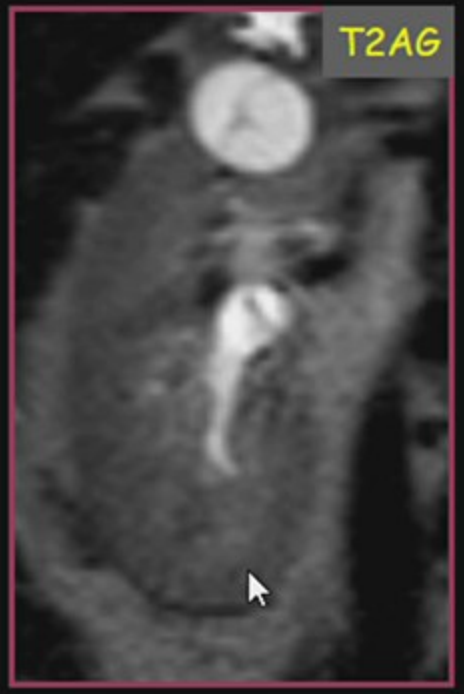
- II. En sık RHK (% 13-15)
- 3. – 8. dekadlar arası, erkek
- Genellikle unilateral (Non-herediter en sık multifokal RHK)
- Tip 1: Berrak hücreli karsinoma kıyasla hipovasküler ve T2AG'de hipointens.
- Tip 2: Histopatolojik olarak değişik oranda kistik bileşen +/-

Papiller renal hücreli karsinom

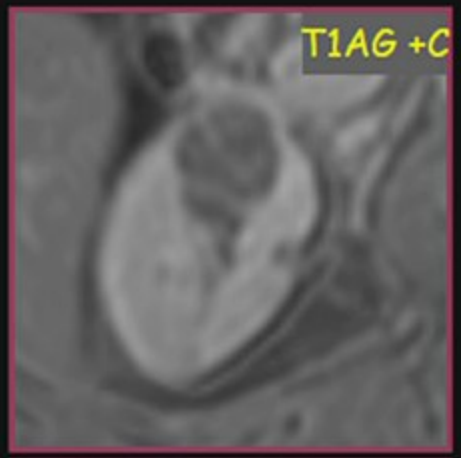


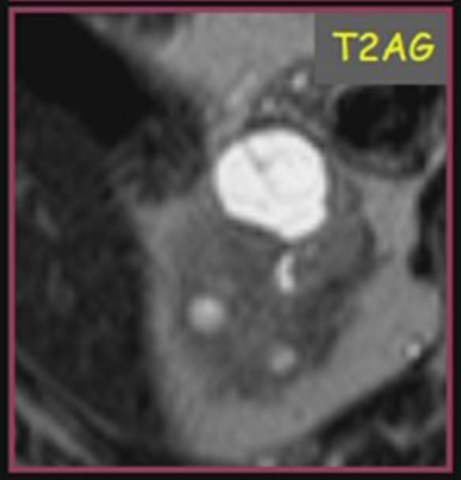
Vikram R et al, Radiographics, 2009

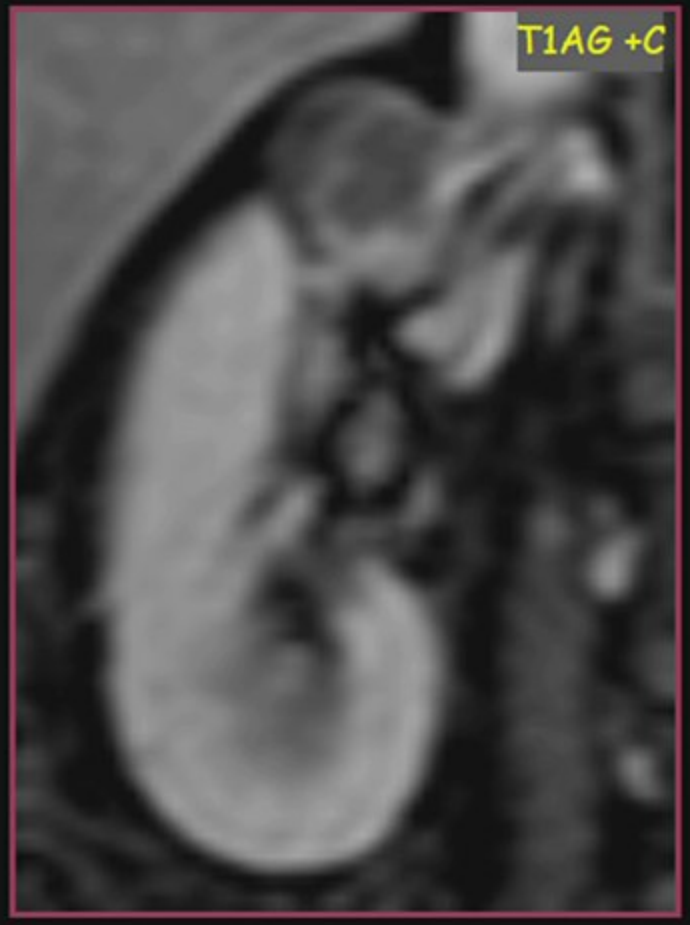
Papiller renal hücreli karsinom - Bosniak 3



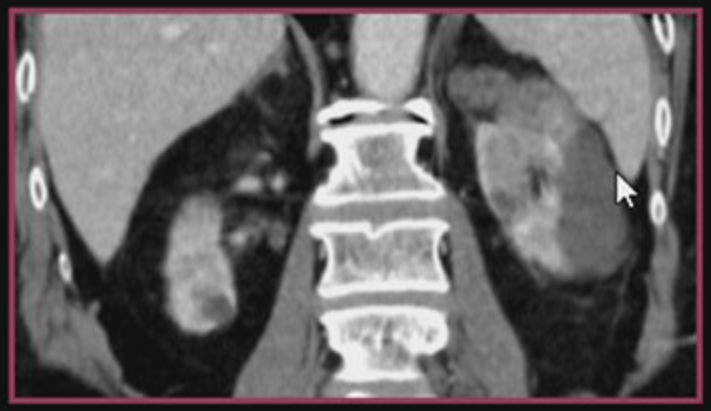
54 y, E, sağ böbrek papiller renal hücreli karsinom (pT1a)

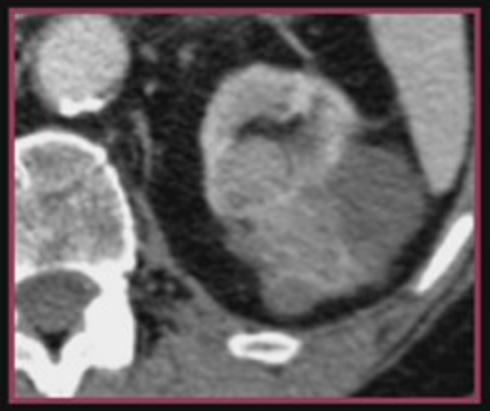


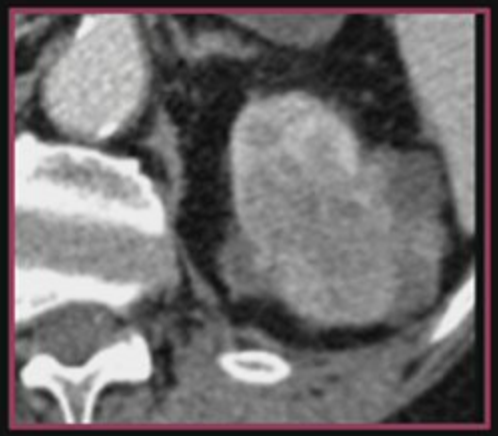


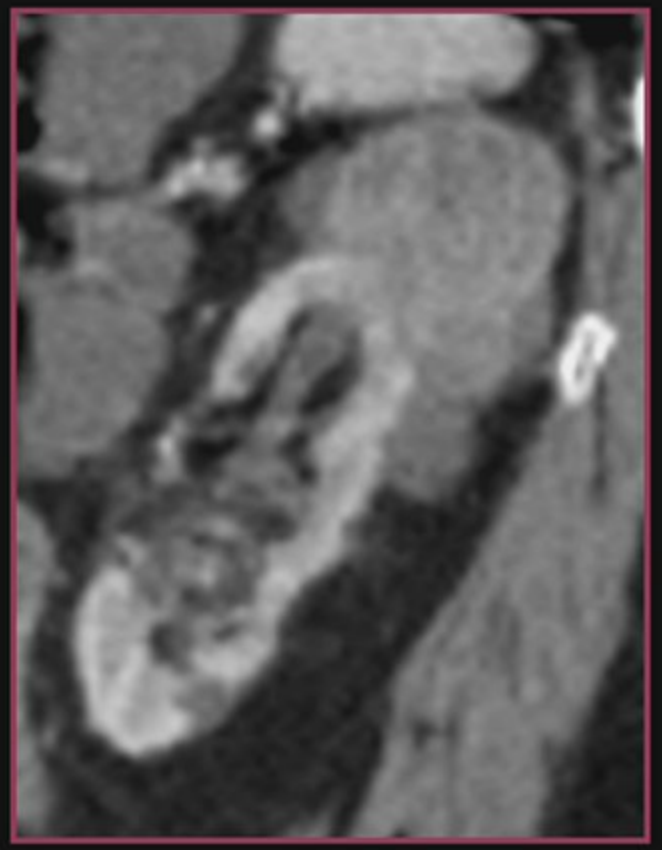


Papiller renal hücreli karsinom - Bosniak 4









88 y, E, sağ böbrek papiller renal hücreli karsinom (pT3a)

Sonuç olarak…

- Bosniak sınıf 2F kistler – Radyolojik izlem
- Kontrastlanan duvar veya septasyon – Bosniak sınıf 3
- Solid bileşen – Bosniak sınıf 4

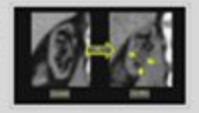
- Renal tümör riski nedeniyle izlem;
  - ODPKBH
  - Edinsel Renal Kistik Hastalık
  - Von Hippel Lindau Sendromu

- Multiloküler kistik RHK – Malignite potansiyeli düşük kistik lezyonlar









Not eklemek için tıklatın