

Vesedaganatok



A vese daganatai

Daganattípusok

Jóindulatú daganatok

Rosszindulatú
daganatok

Gyerekkori daganatok

WHO classification of tumours of the kidney

Renal cell tumours

Clear cell renal cell carcinoma	8310/3
Multilocular cystic renal neoplasm of low malignant potential	8316/1*
Papillary renal cell carcinoma	8260/3
Hereditary leiomyomatosis and renal cell carcinoma-associated renal cell carcinoma	8311/3*
Chromophobe renal cell carcinoma	8317/3
Collecting duct carcinoma	8319/3
Renal medullary carcinoma	8510/3*
MiT family translocation renal cell carcinomas	8311/3*
Succinate dehydrogenase-deficient renal carcinoma	8311/3
Mucinous tubular and spindle cell carcinoma	8480/3*
Tubulocystic renal cell carcinoma	8316/3*
Acquired cystic disease-associated renal cell carcinoma	8316/3
Clear cell papillary renal cell carcinoma	8323/1
Renal cell carcinoma, unclassified	8312/3
Papillary adenoma	8260/0
Oncocytoma	8290/0

Metanephric tumours

Metanephric adenoma	8325/0
Metanephric adenofibroma	9013/0
Metanephric stromal tumour	8935/1

Nephroblastic and cystic tumours occurring mainly in children

Nephrogenic rests	
Nephroblastoma	8960/3
Cystic partially differentiated nephroblastoma	8959/1
Paediatric cystic nephroma	8959/0

Mesenchymal tumours

Mesenchymal tumours occurring mainly in children

Clear cell sarcoma	8964/3
Rhabdoid tumour	8963/3
Congenital mesoblastic nephroma	8960/1
Ossifying renal tumour of infancy	8967/0

Mesenchymal tumours occurring mainly in adults

Leiomyosarcoma	8890/3
Angiosarcoma	9120/3
Rhabdomyosarcoma	8900/3
Osteosarcoma	9180/3
Synovial sarcoma	9040/3
Ewing sarcoma	9364/3
Angiomyolipoma	8860/0
Epithelioid angiomyolipoma	8860/1*
Leiomyoma	8890/0
Haemangioma	9120/0
Lymphangioma	9170/0
Haemangioblastoma	9161/1
Juxtaglomerular cell tumour	8361/0
Renomedullary interstitial cell tumour	8966/0
Schwannoma	9560/0
Solitary fibrous tumour	8815/1

Mixed epithelial and stromal tumour family

Cystic nephroma	8959/0
Mixed epithelial and stromal tumour	8959/0

Neuroendocrine tumours

Well-differentiated neuroendocrine tumour	8240/3
Large cell neuroendocrine carcinoma	8013/3
Small cell neuroendocrine carcinoma	8041/3
Phaeochromocytoma	8700/0

Miscellaneous tumours

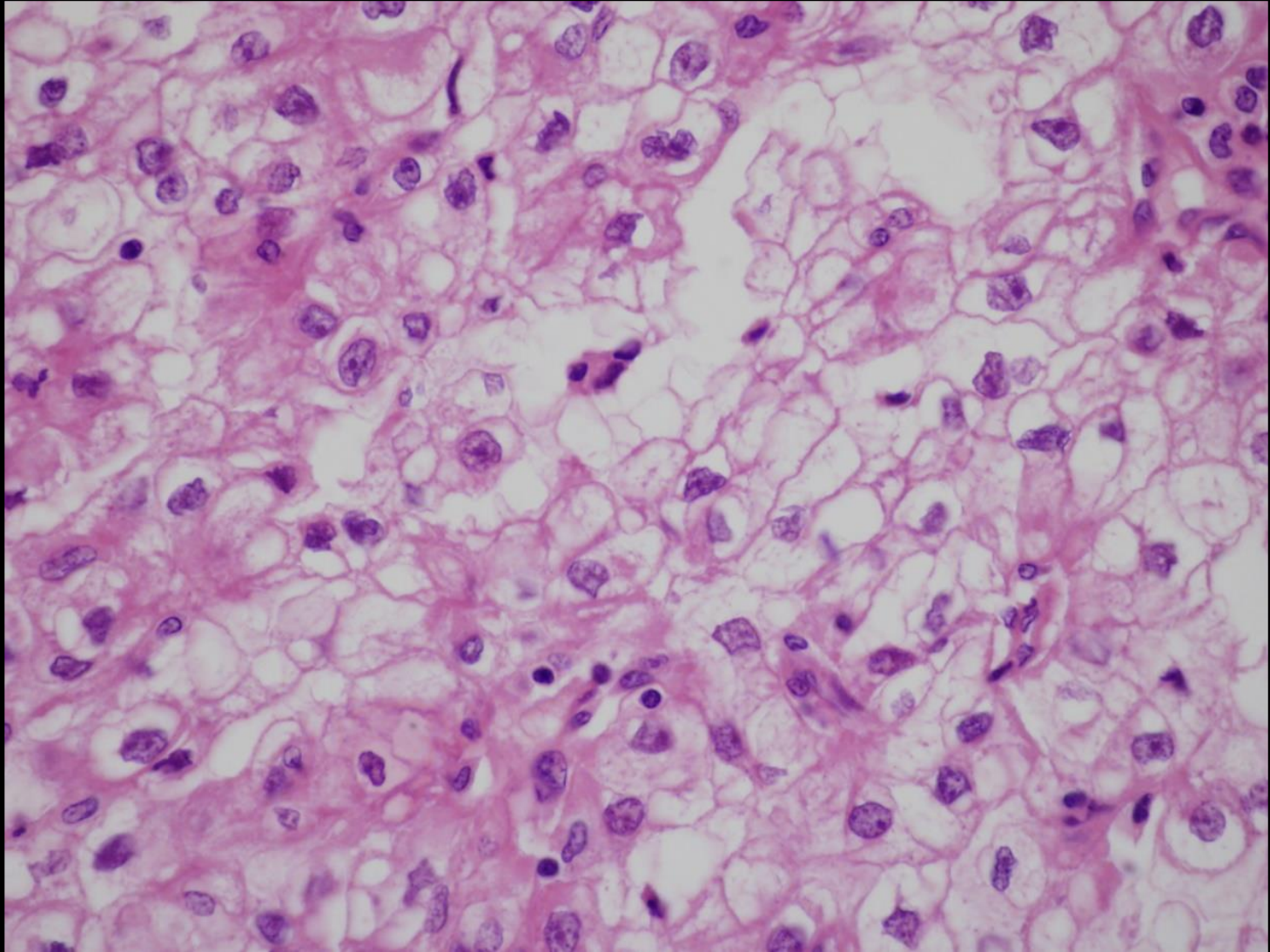
Renal haematopoietic neoplasms	
Germ cell tumours	

Metastatic tumours

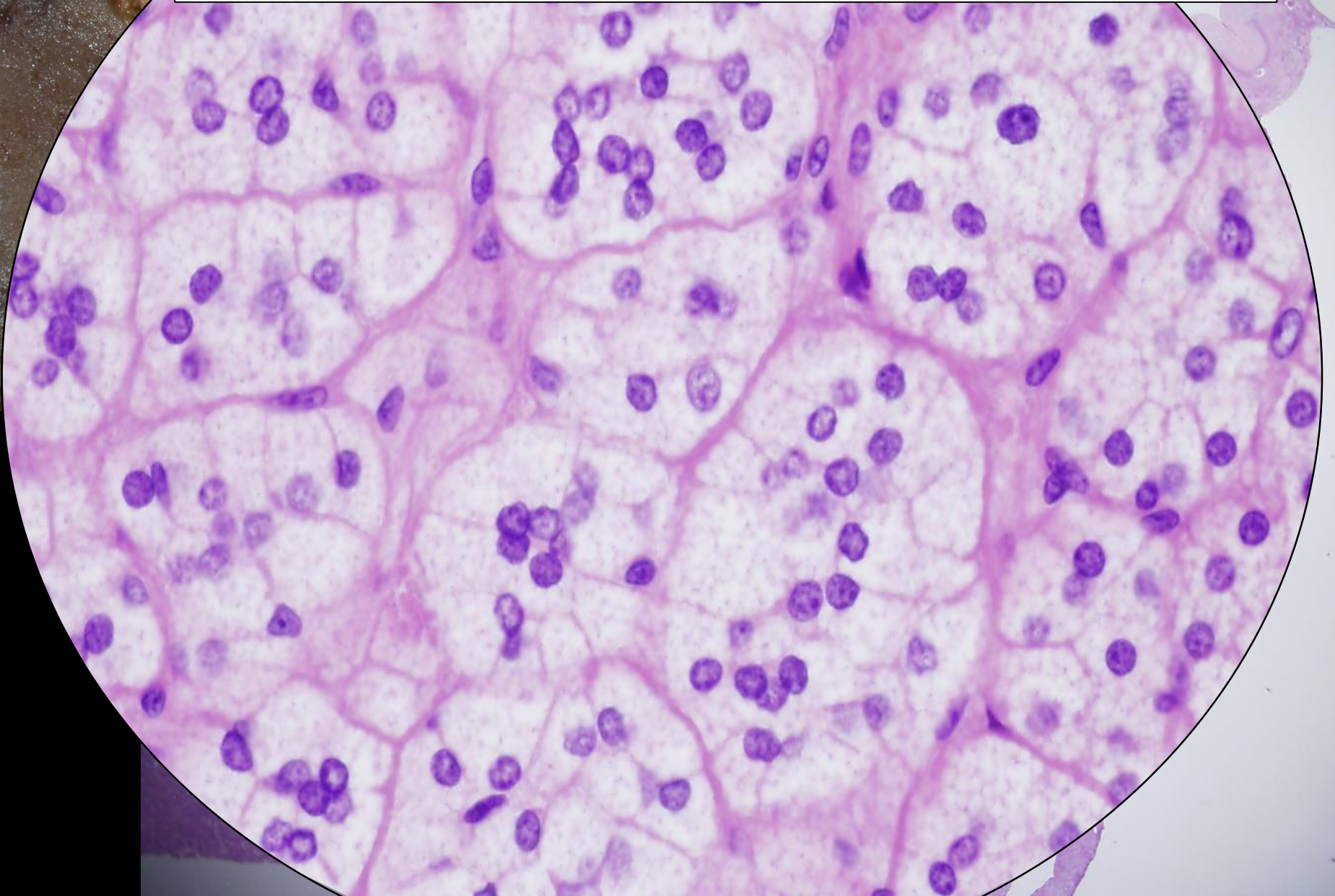
The morphology codes are from the International Classification of Diseases for Oncology (ICD-O) [917A]. Behaviour is coded /0 for benign tumours; /1 for unspecified, borderline, or uncertain behaviour; /2 for carcinoma in situ and grade III intraepithelial neoplasia; and /3 for malignant tumours. The classification is modified from the previous WHO classification [756A], taking into account changes in our understanding of these lesions.

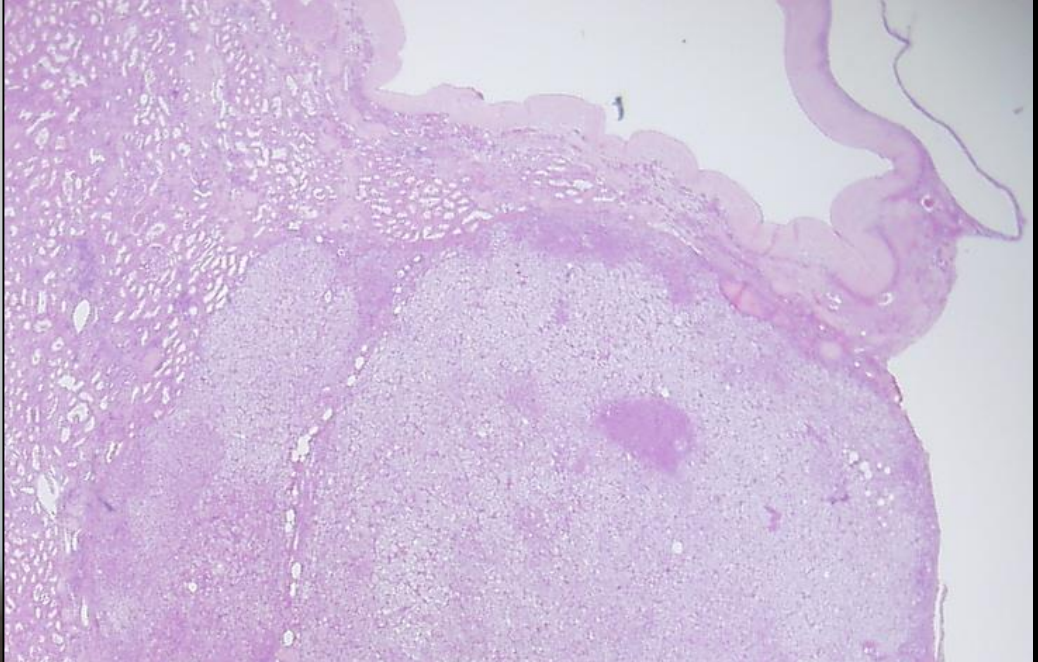
*New code approved by the IARC/WHO Committee for ICD-O.

Fókuszban:
A világossejtes veserák



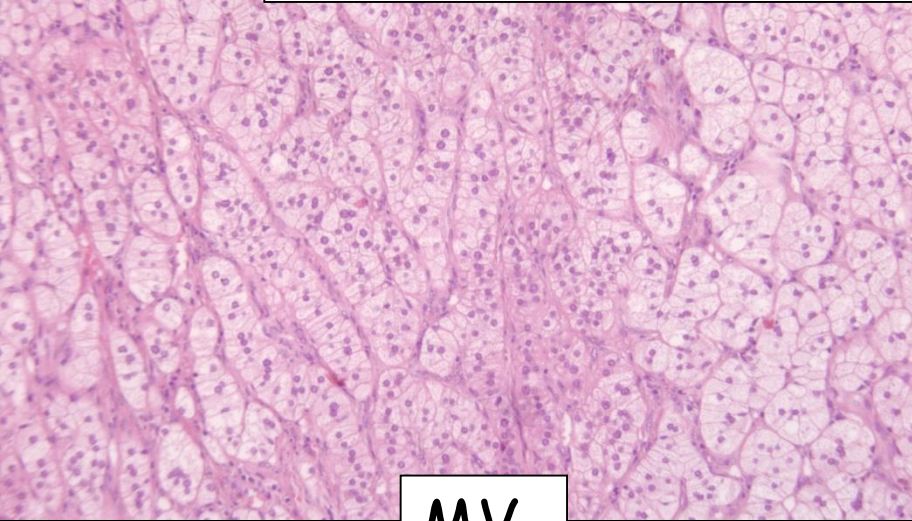
Világossejtes veserák, Vesesejtes carcinoma
(Renal cell carcinoma- RCC - ((Hypernephroma))



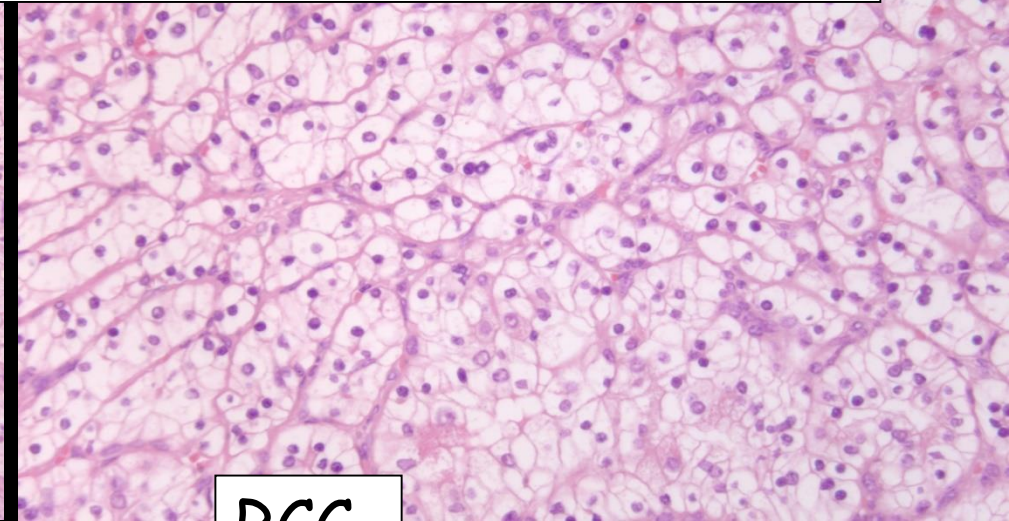


Ez
RCC!

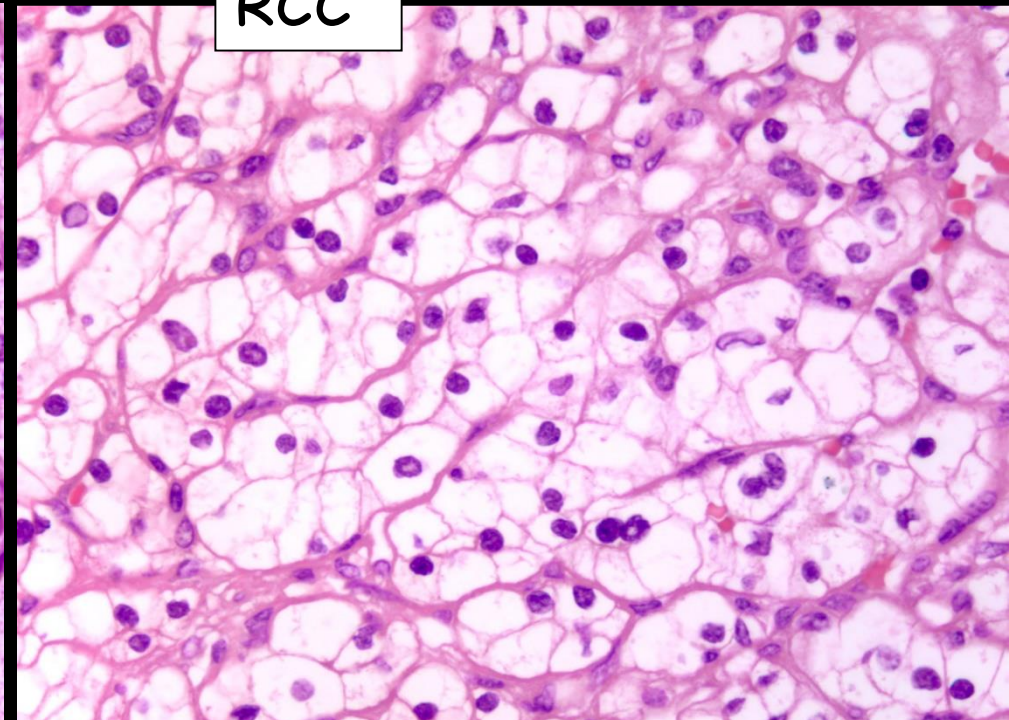
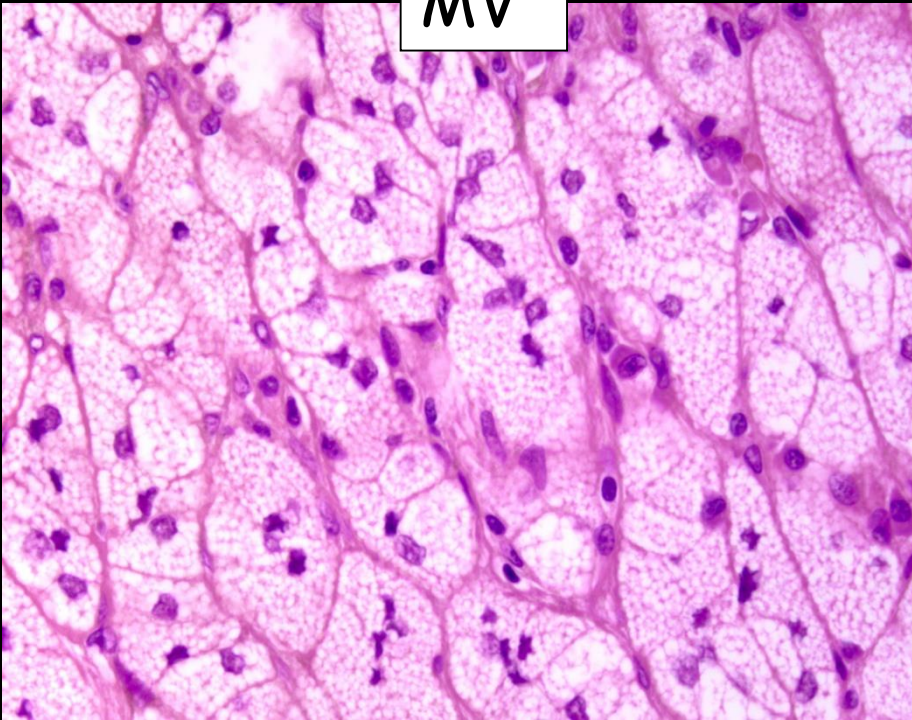
Világossejtes veserák, Vesesejtes carcinoma
(Renal cell carcinoma- RCC - ((Hypernephroma))



MV



RCC



RCC-Legfontosabb „klasszikus” tünetek

Haematuria

Hypertonia

Costovertebrális (deréktáji) fájdalom

Ha nincs tünet.....

Manapság leggyakrabban „véletlenül”
felfedezett

Diagnosztika

UH

CT

MR

Preoperatív diagnosztika:

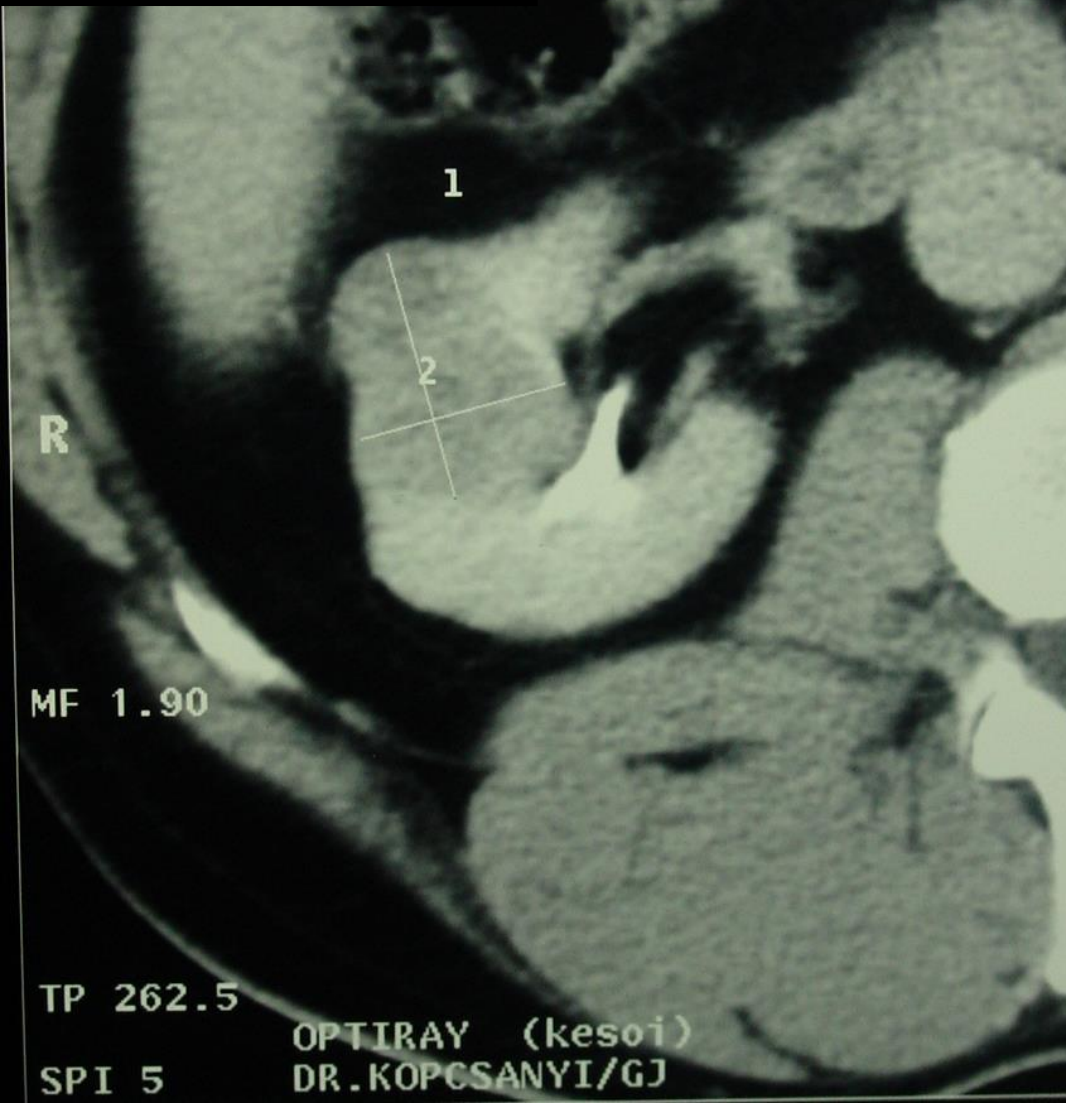
FNAB

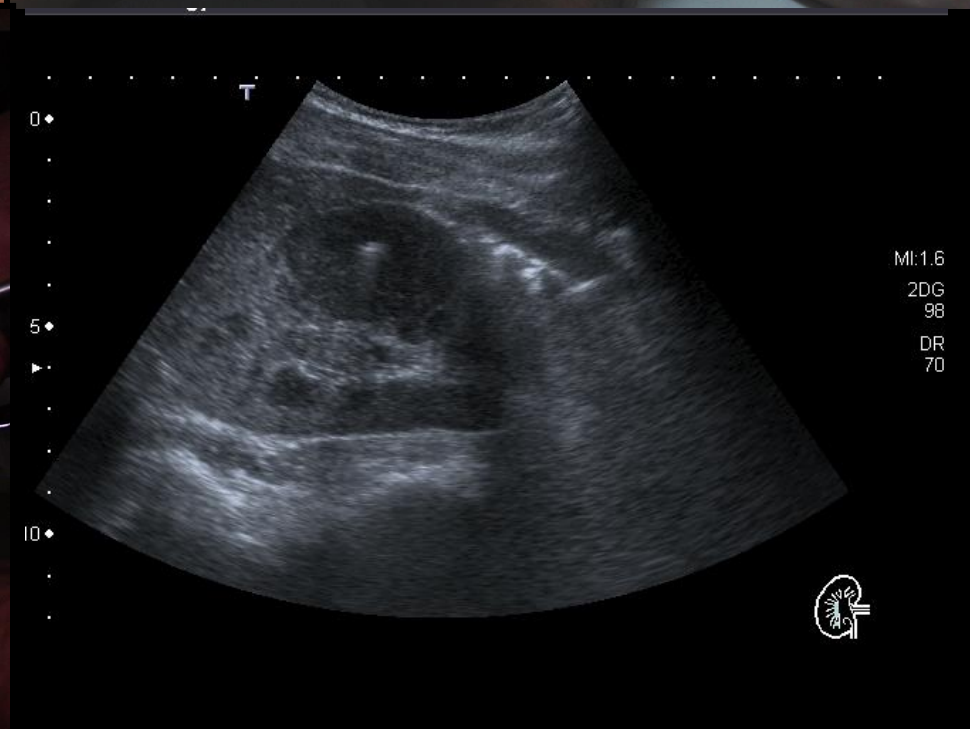
Core-biopszia

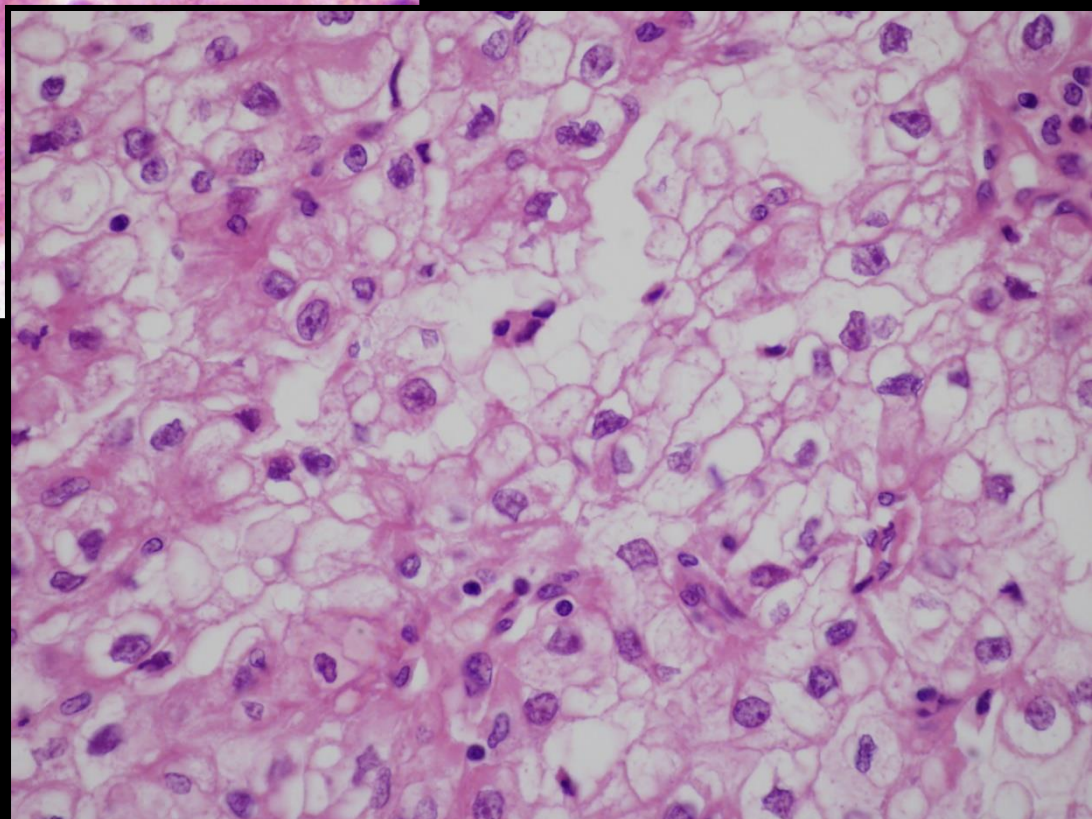
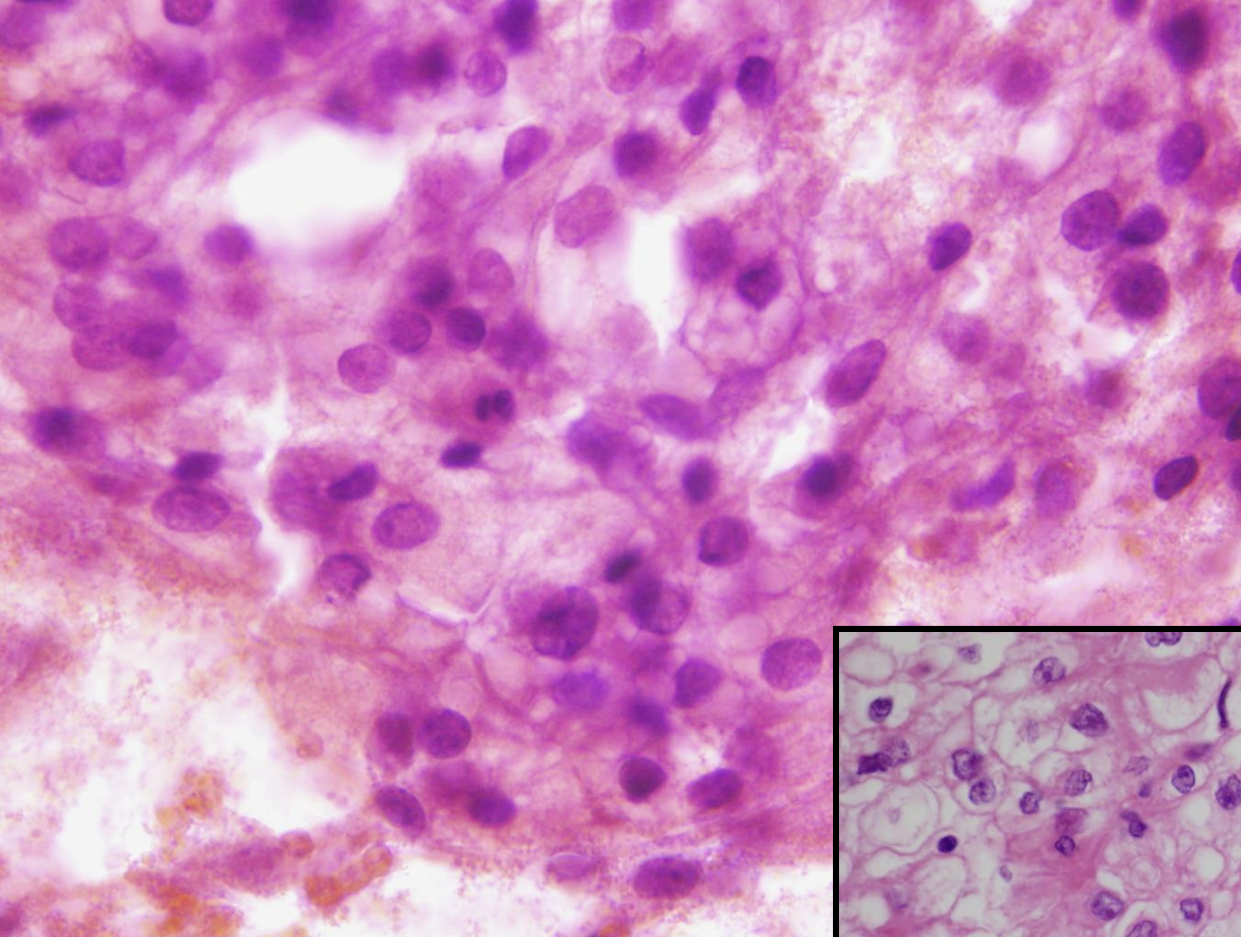
44 éves ffi.

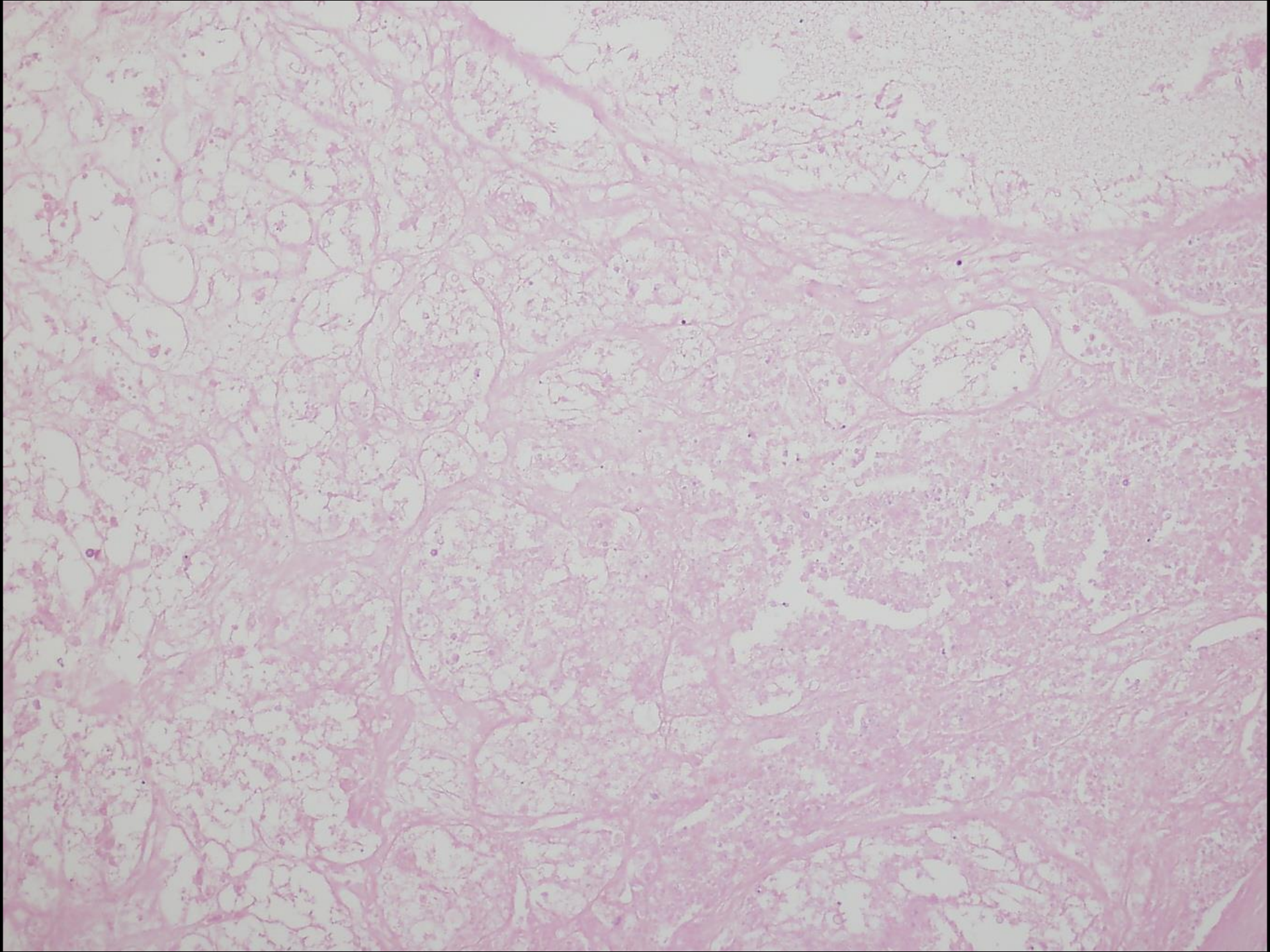
A

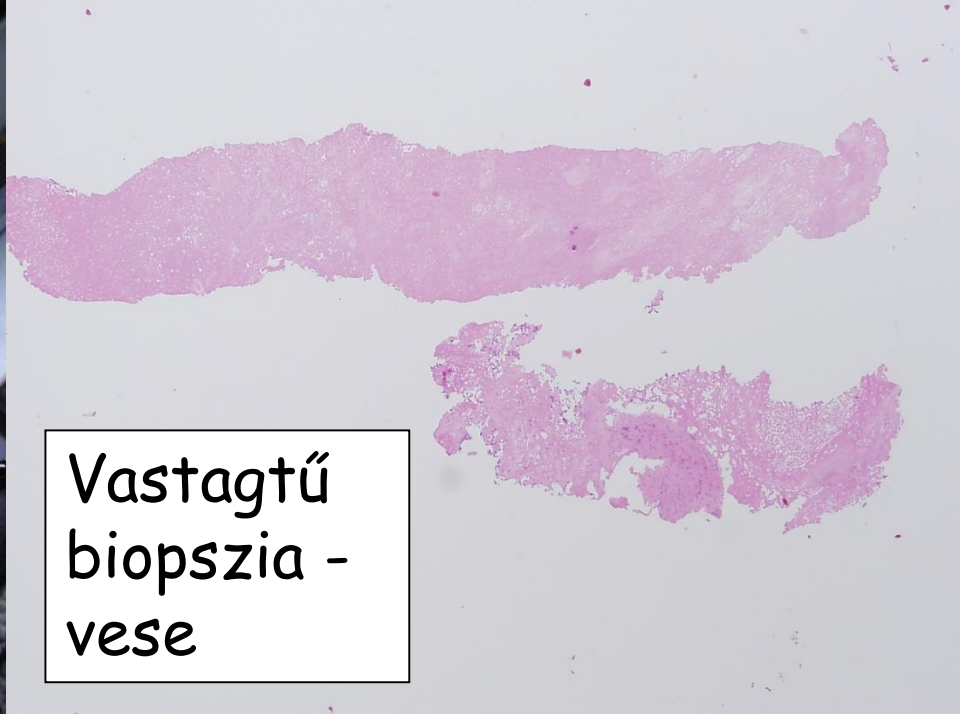
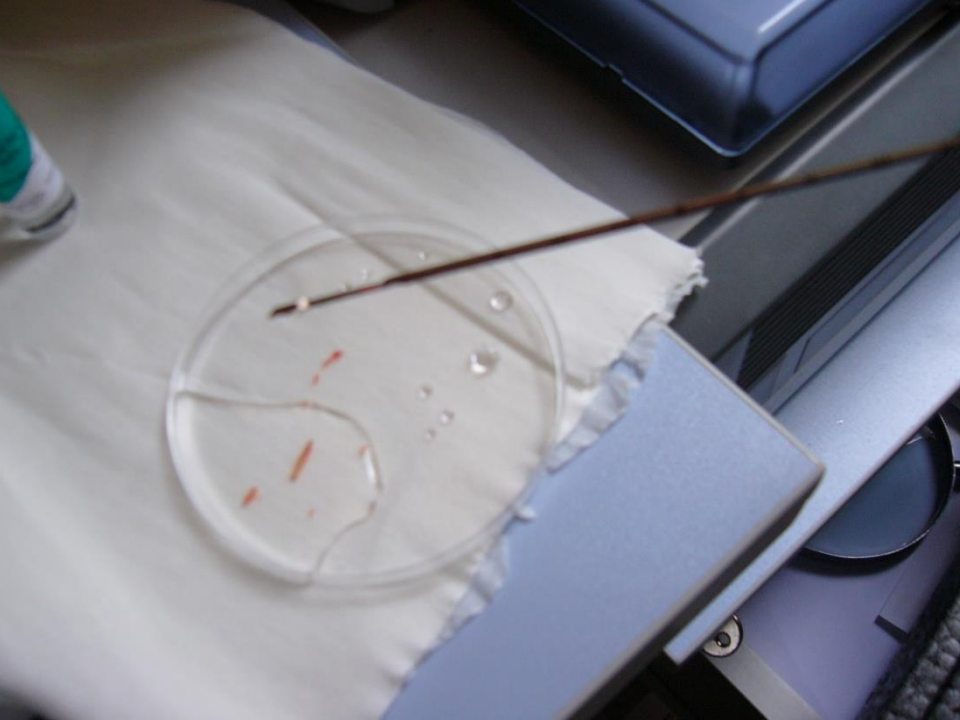
Véletlenül felfedezett
vesetumor



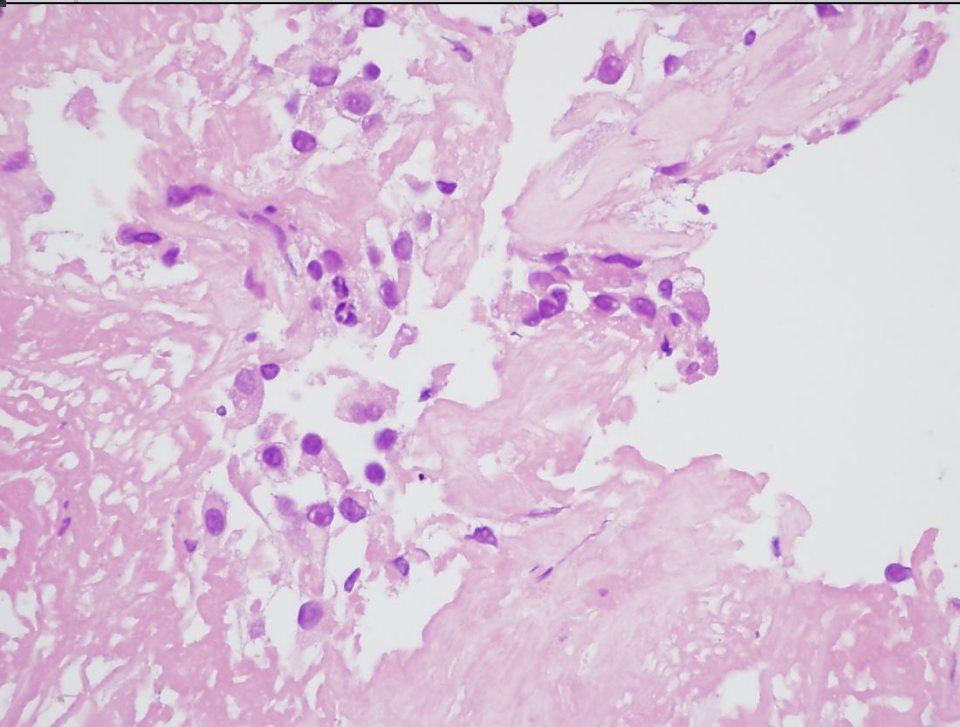
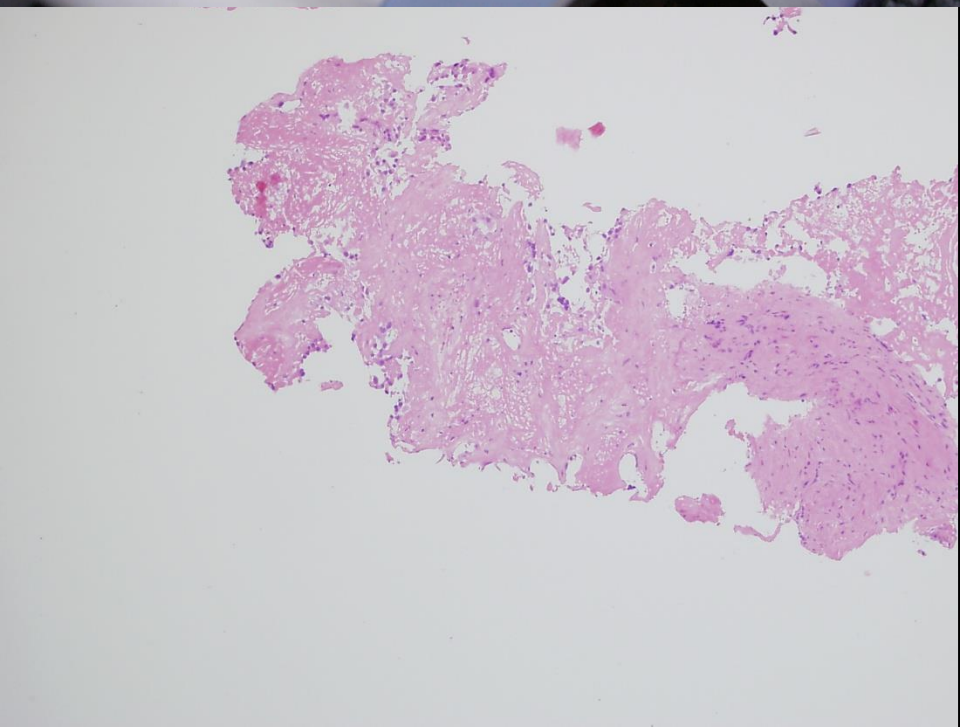








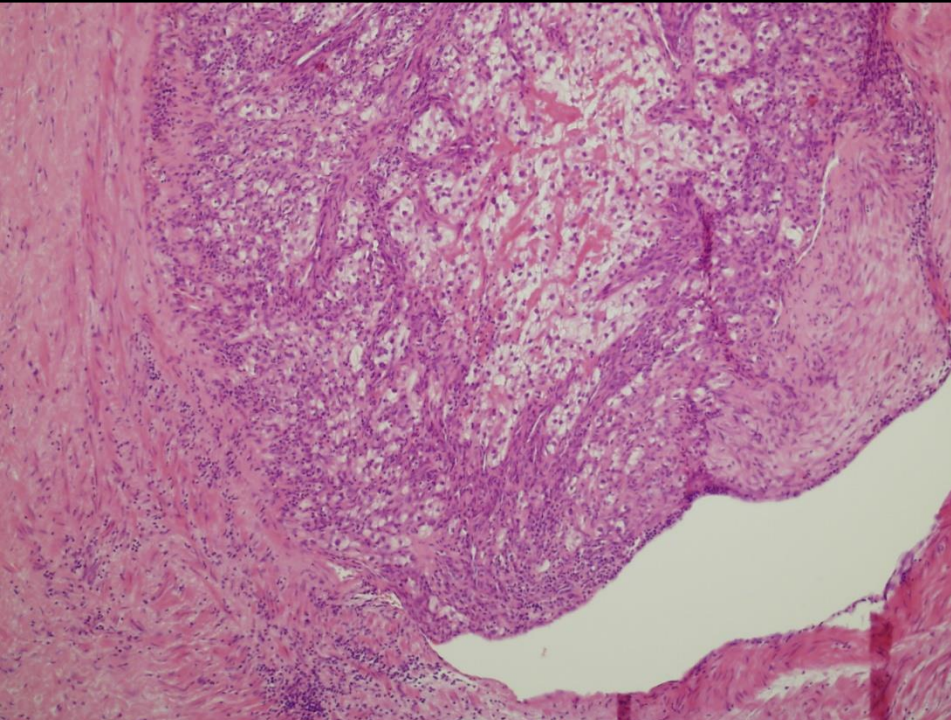
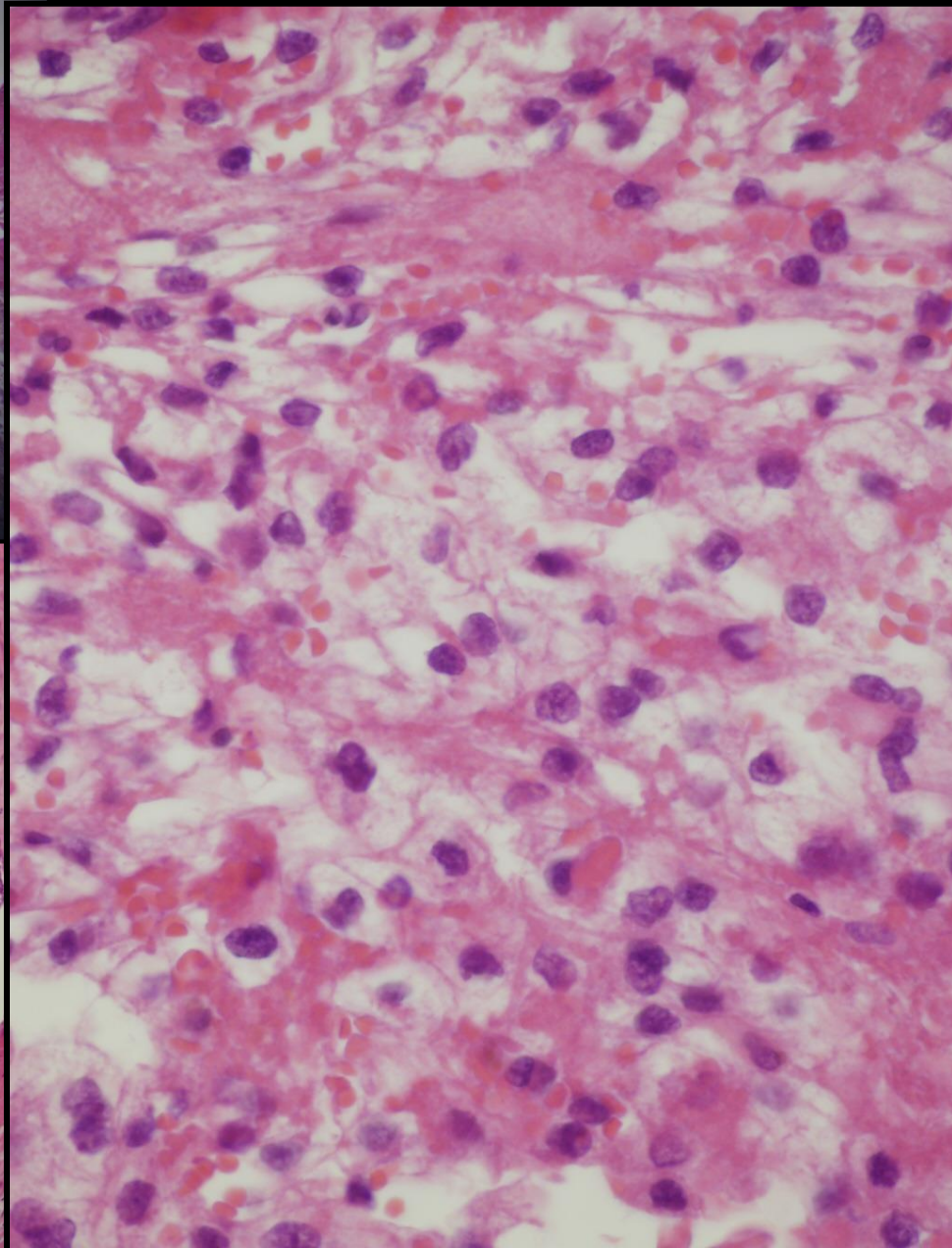
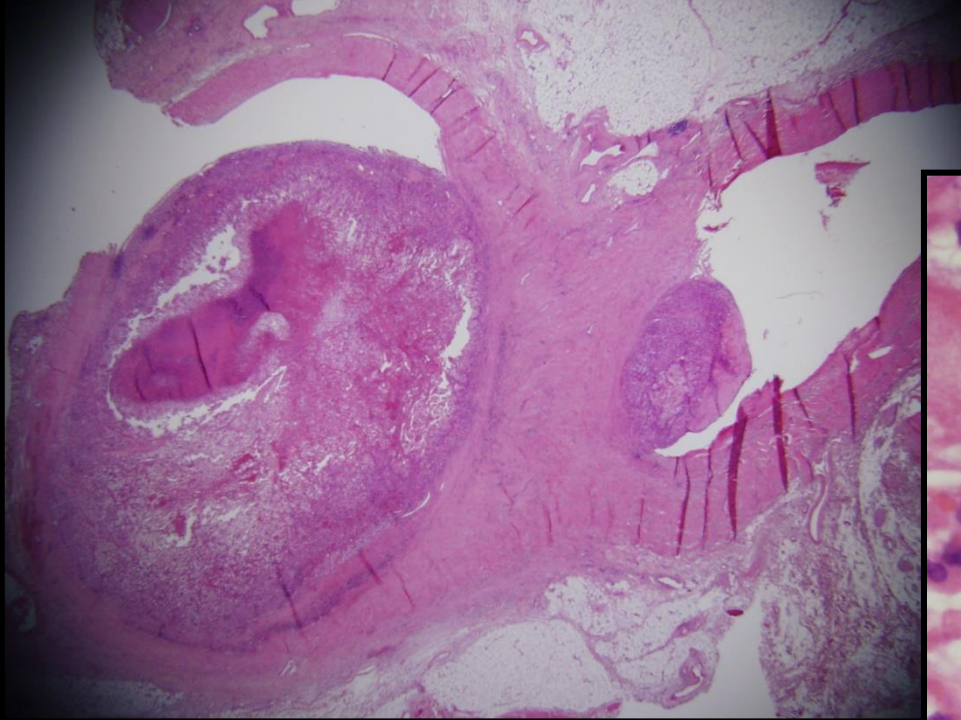
Vastagtű
biopszia -
vese



A vesesejtes carcinoma legfontosabb jellemzői

- Világos „növényi jellegű” sejtek
- Paraneoplasticus tünetek tarkasága
- Érinvázcióra való hajlam
- Kiterjedt metastasisok, bármikor, bárhova

(reg. nyacs-k, MV-k, tüdő, agy,
csontok, pajzsmirigy, bőr, here)



Paraneoplasticus tünetek:

Polycythemia

Hypercalcaemia

Hypertensio

Hepaticus dysfunctio

Feminizáció/Masculinizáció

Cushing syndroma

Eosinophilia

Leukemoid reakció

Amyloidosis

D#7714 I#16

RCC

ROI - 1
A= 51.2
M= 51.2
D= 51.2

D#7714 I#48

ROI - 1
A= 53.1
M= 53.1
D= 53.1

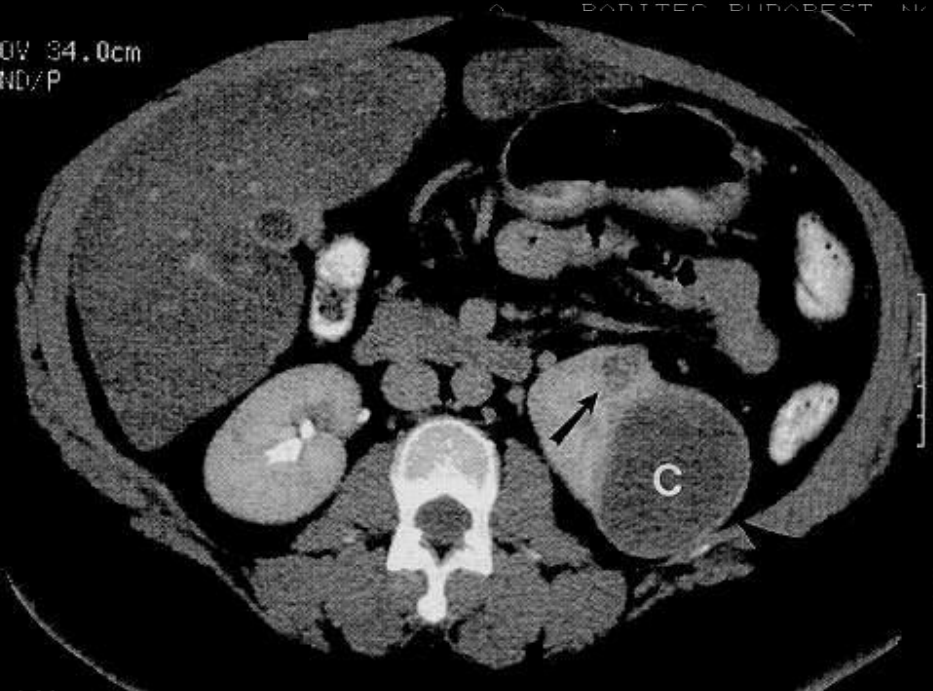
Level 40
Width 400

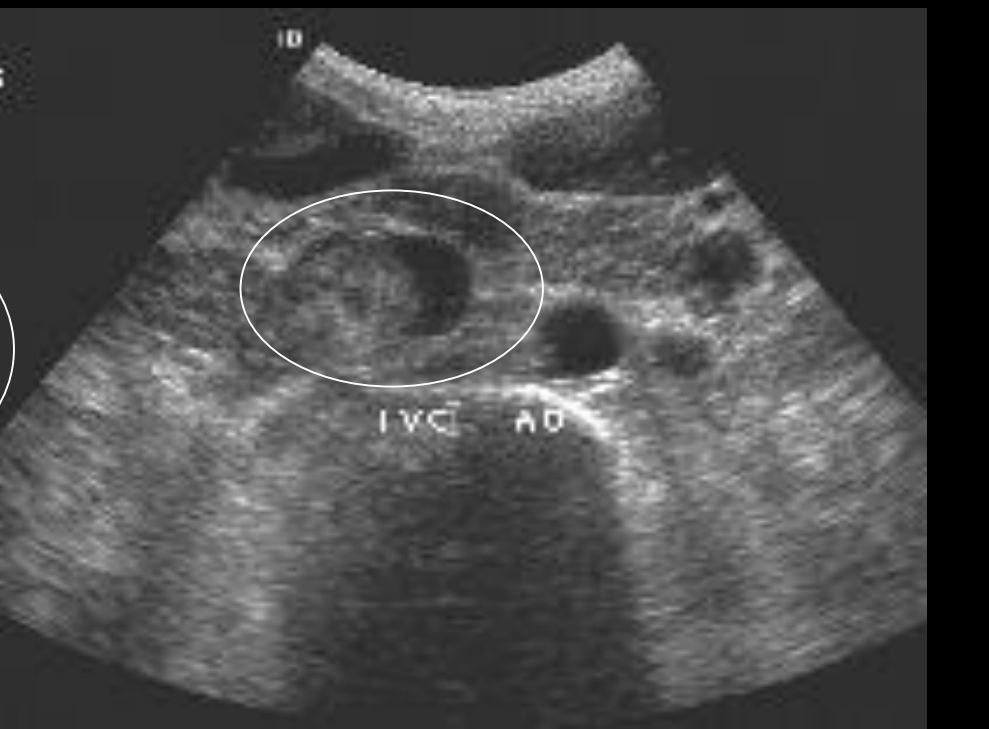
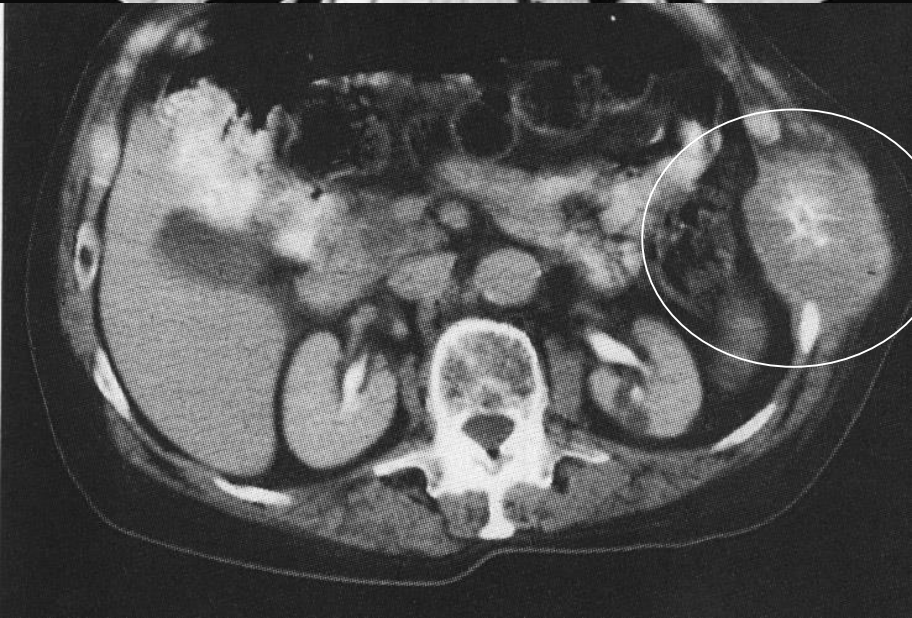
S#15
TL+0
-140

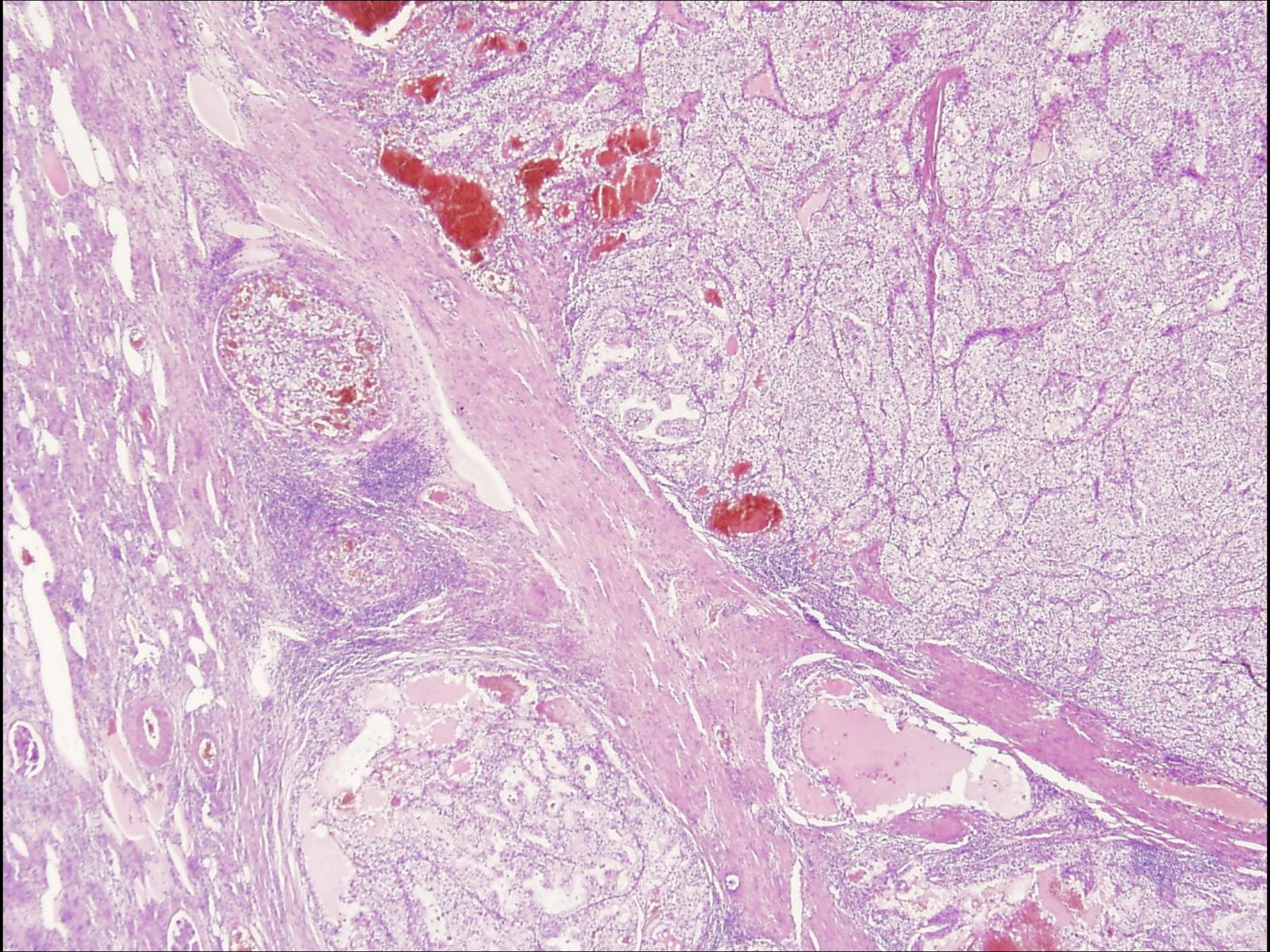
Level 40
Width 400

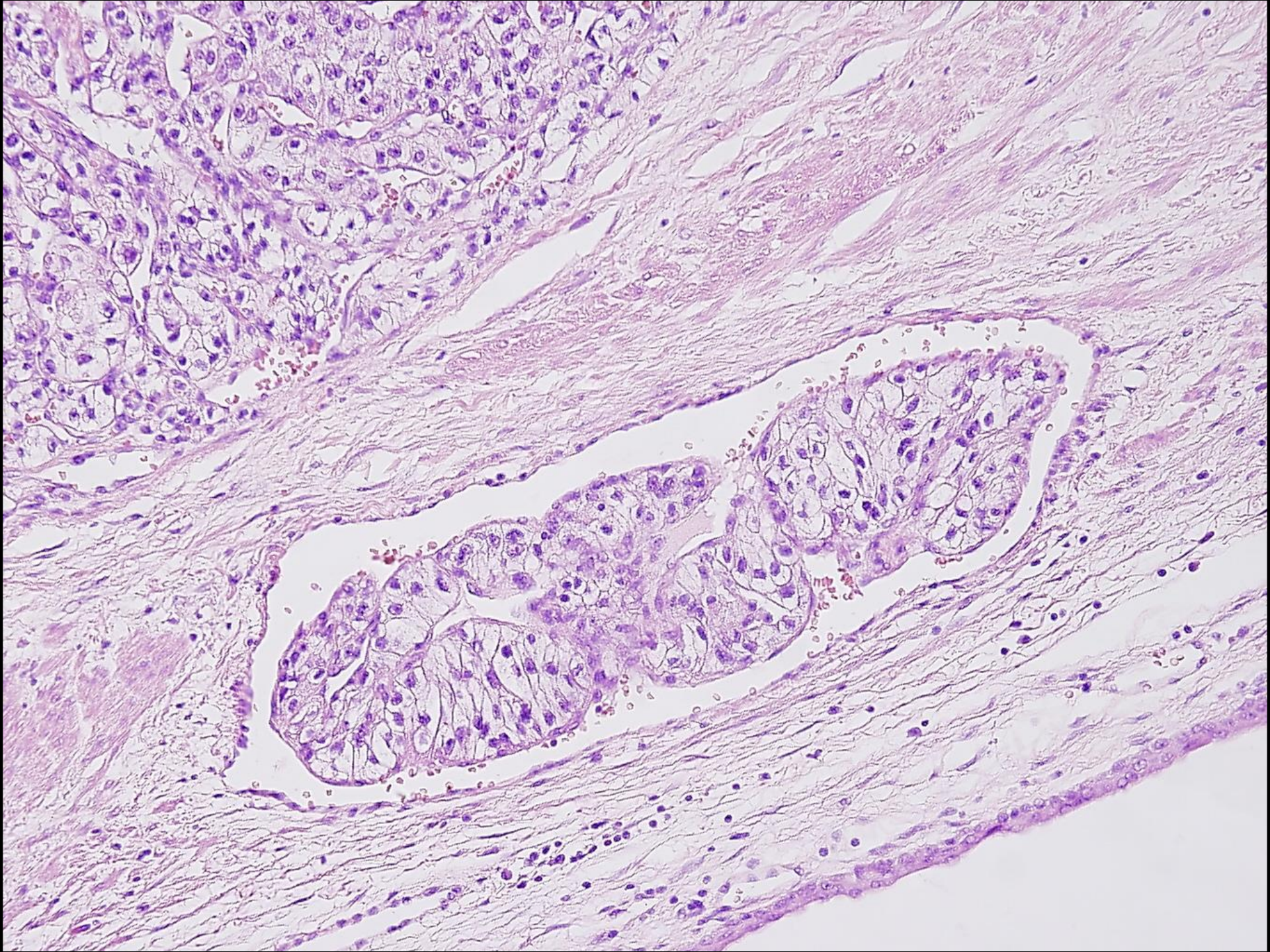
S#26
TL+0
-131

FOV 34.0cm TND/P



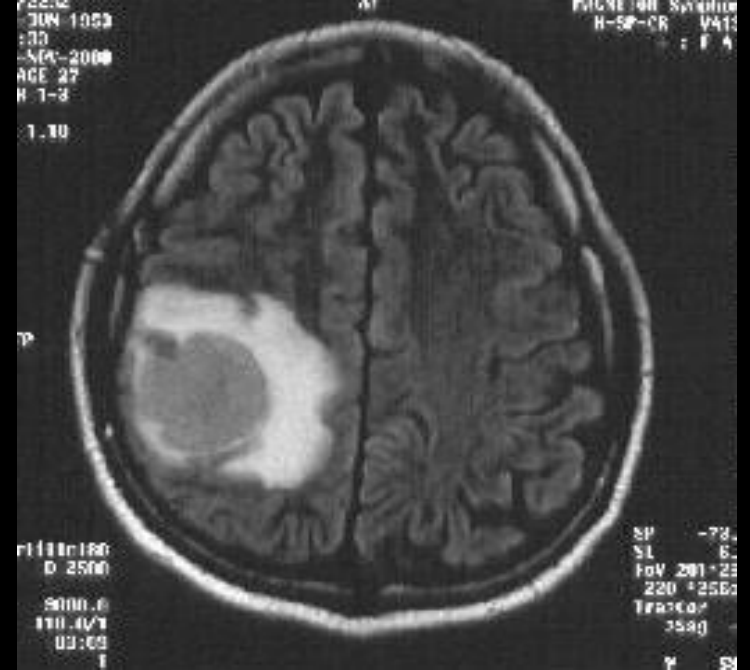








nika
JS 4
VB30B
H-SP-CR



1.70
r110r180
D 2500
9000.0
110.4V1
03:00

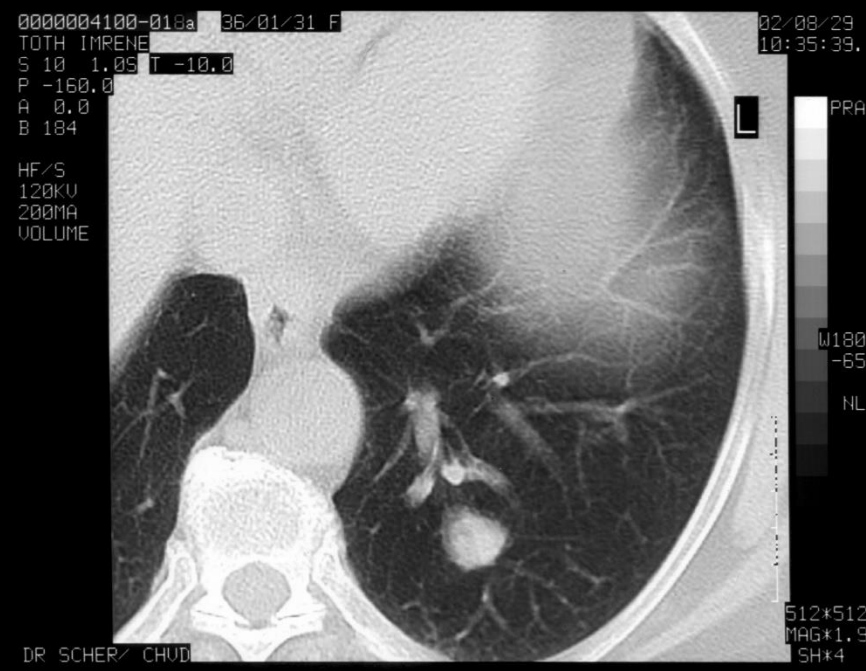
SP -78.
SL 8.
FoV 201*25
220 *25E2
Tractor
25ag

23-SEP-1950
30-NOV-1998
09:41:04.17



10 cm

TP 337.0
IMA 99
SPI 7
ULTRAVIST
DR. MARTON/TA
W 380
C 30



0000004100-018a 36/01/31 F
TOTL IMRENE
S 10 1.05 T -10.0
P -160.0
A 0.0
B 184
HF/S
120KV
200MA
VOLUME

02/08/29
10:35:39.

PRA
W180
-65
NL

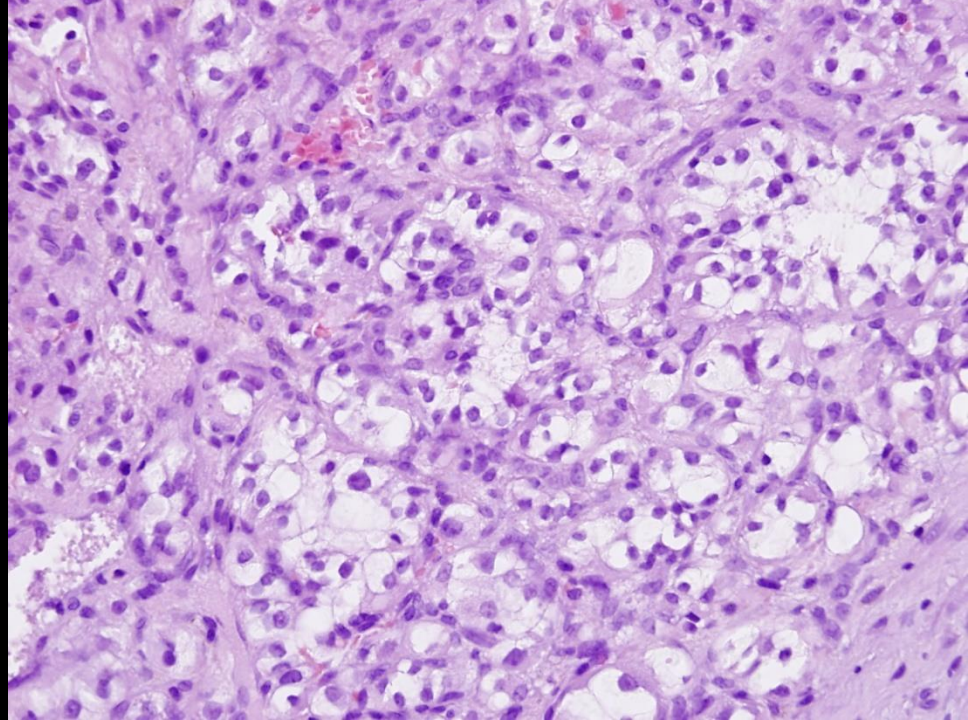
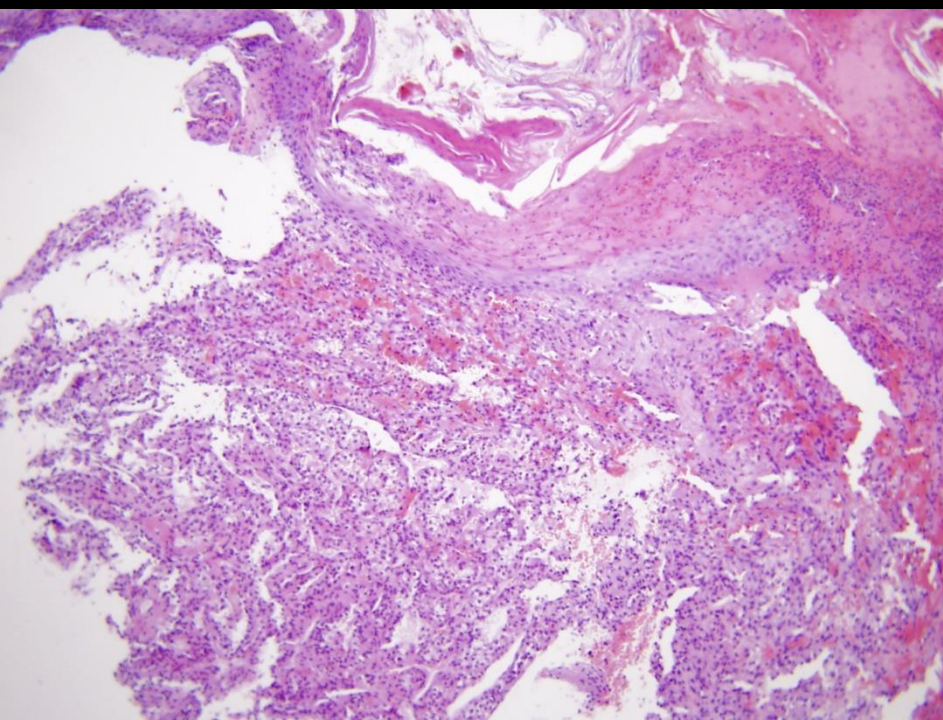
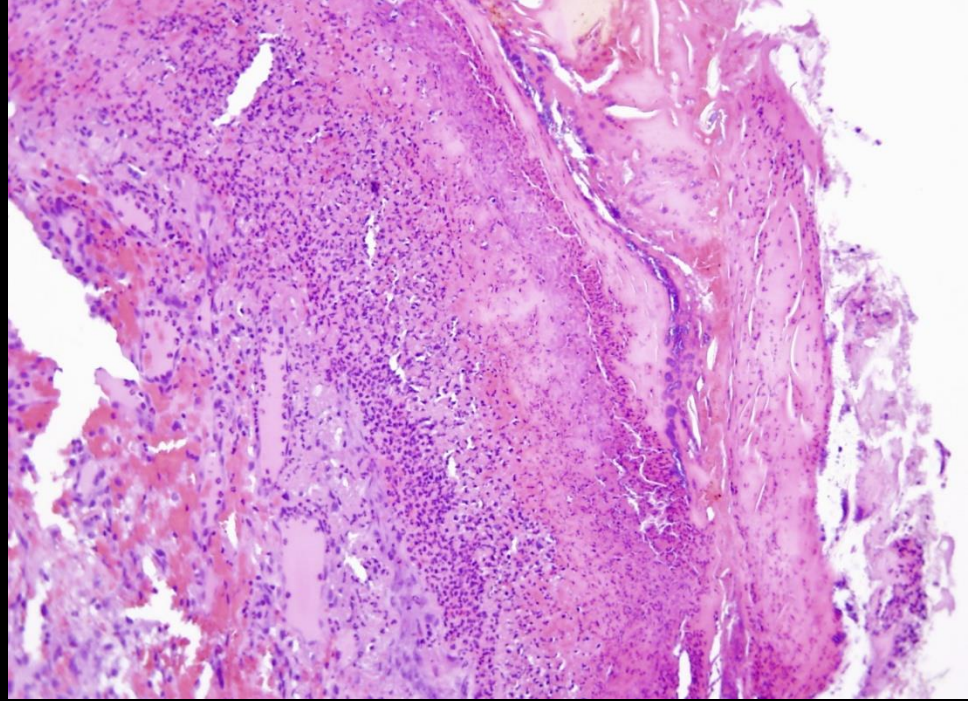
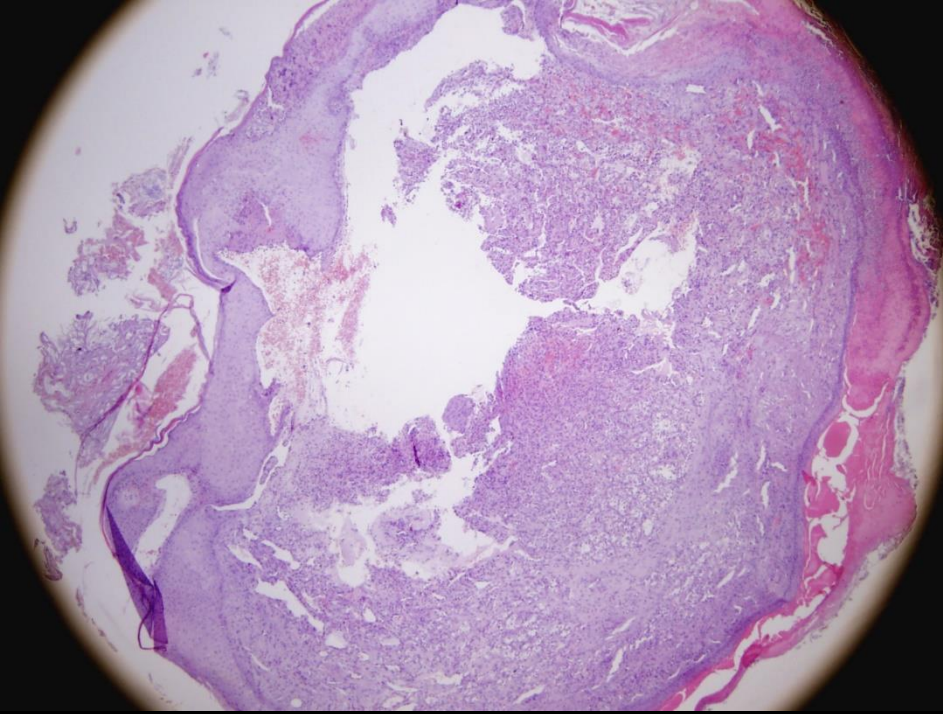
DR SCHER/ CHUD

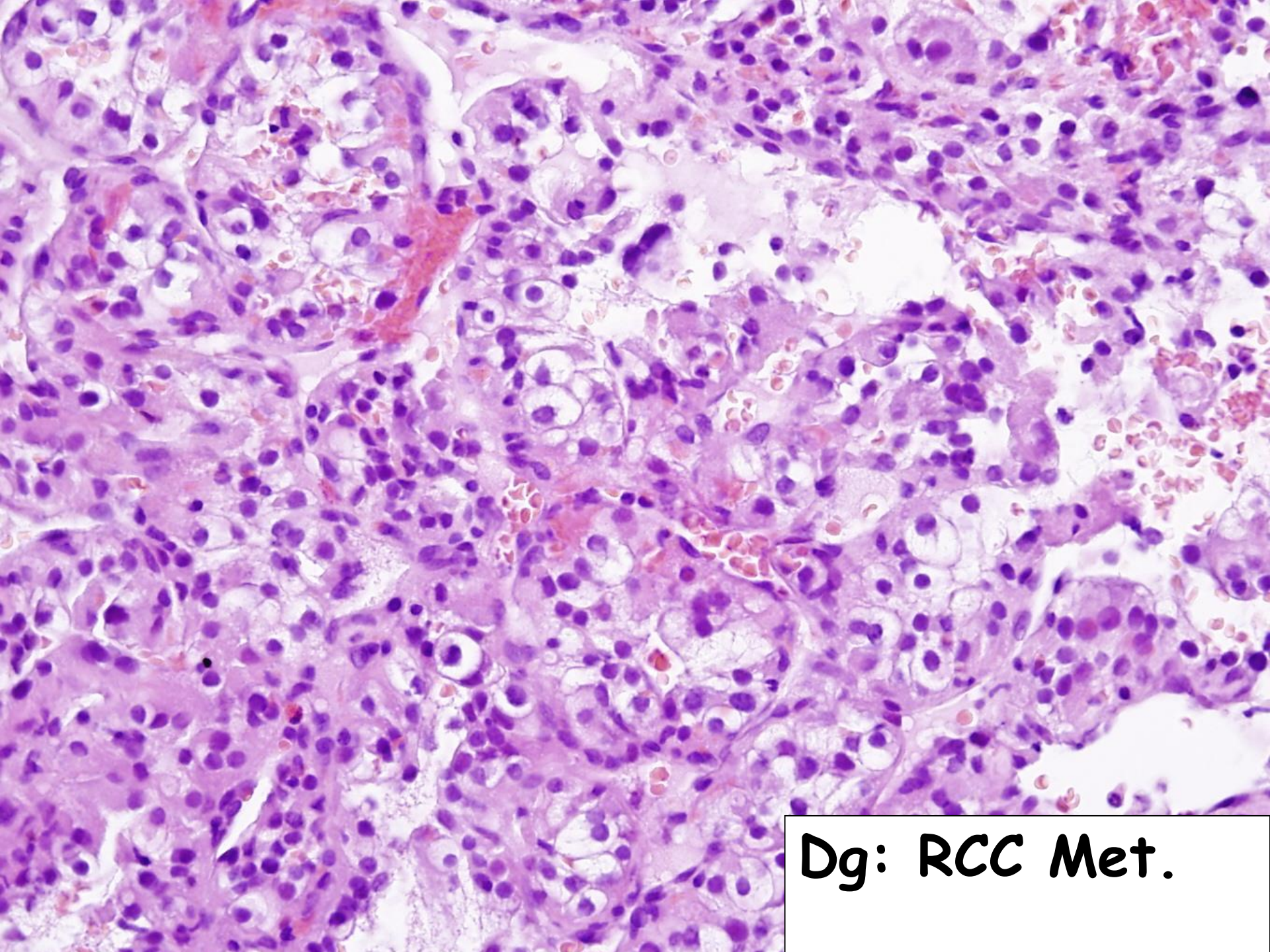
512*512
MAG*1.9
SH*4

67 éves nő

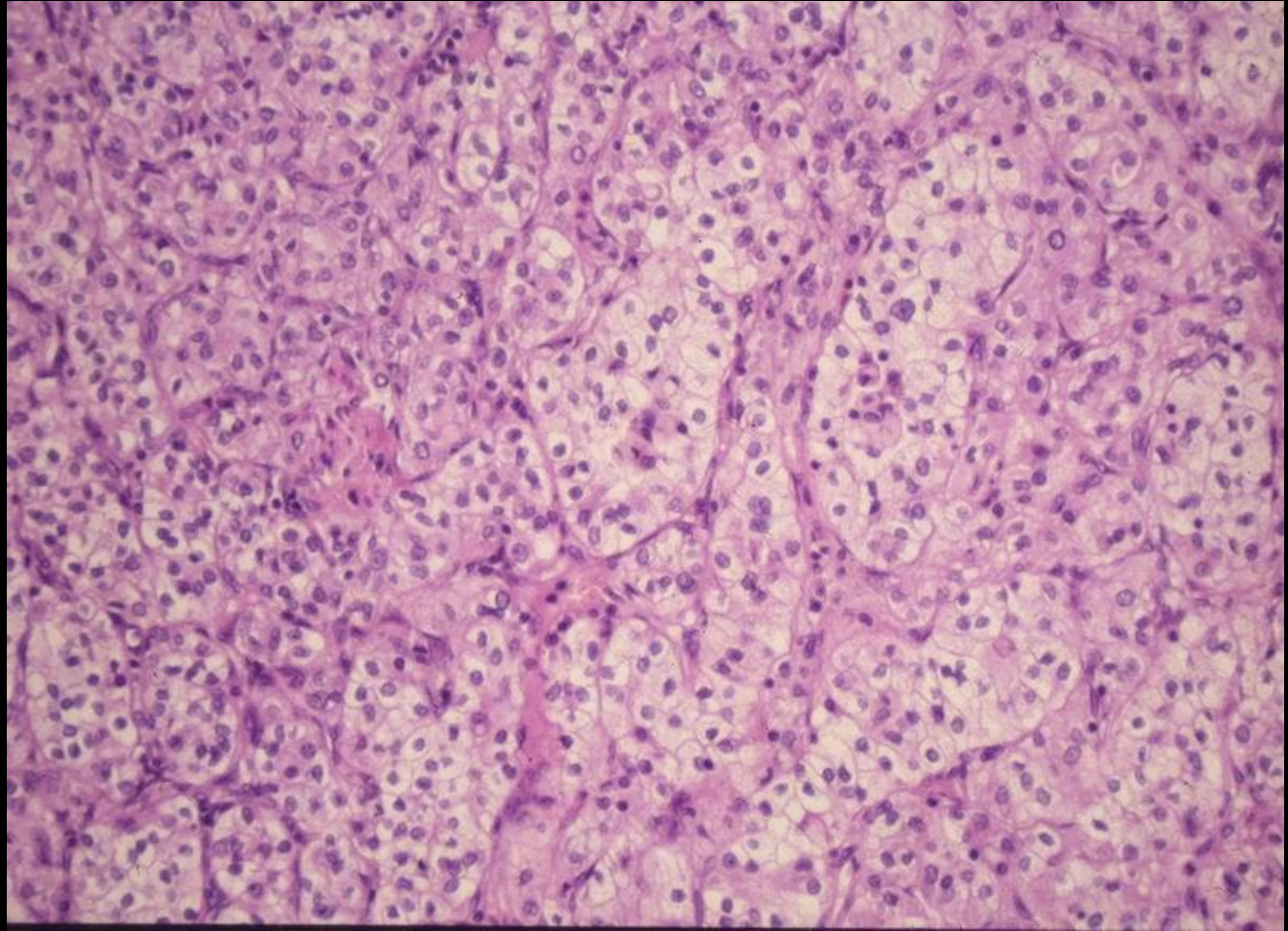
Vérzékeny polypoid szövet az
orrüregben

Kl.:Haemangioma?





Dg: RCC Met.

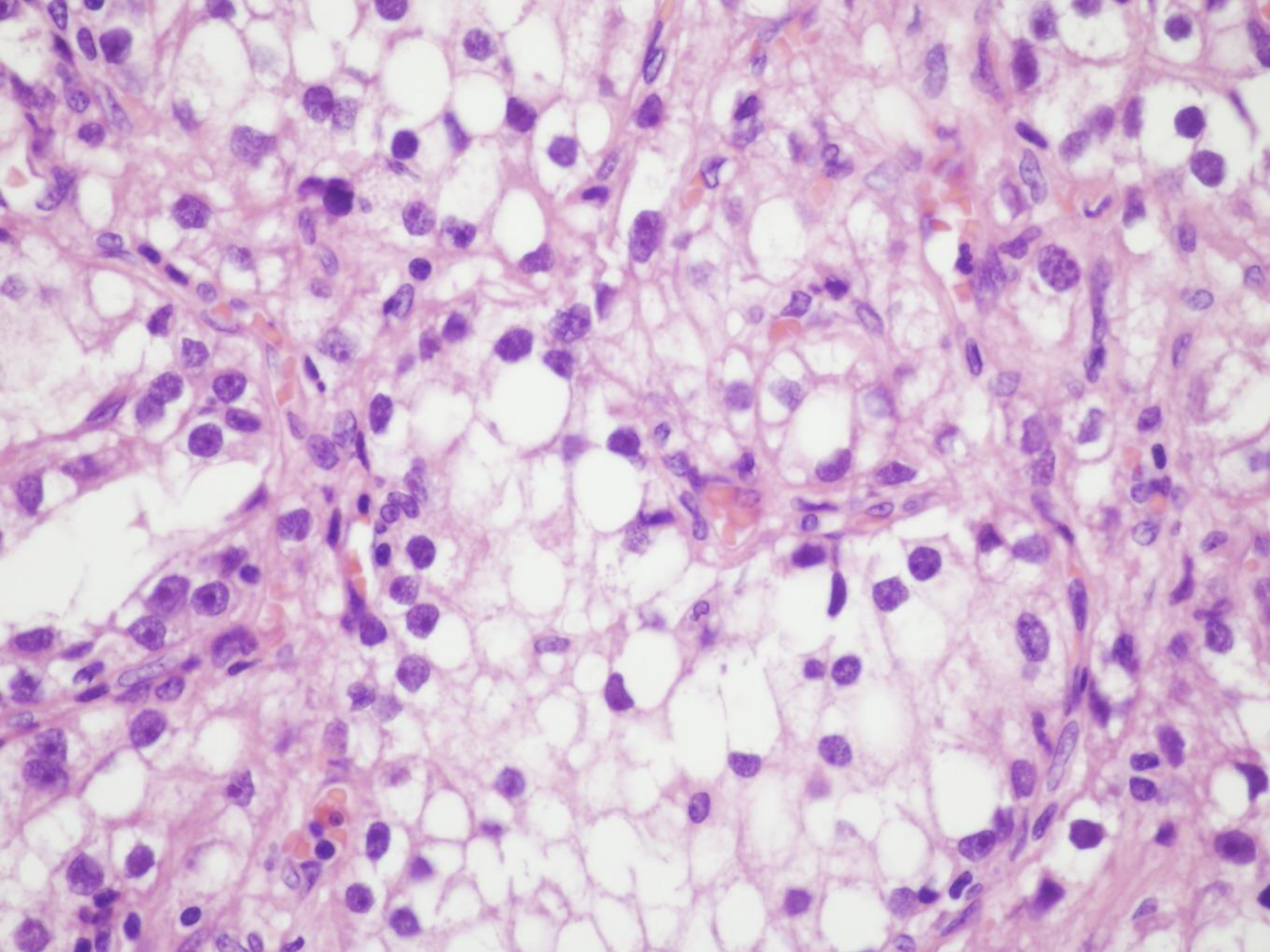


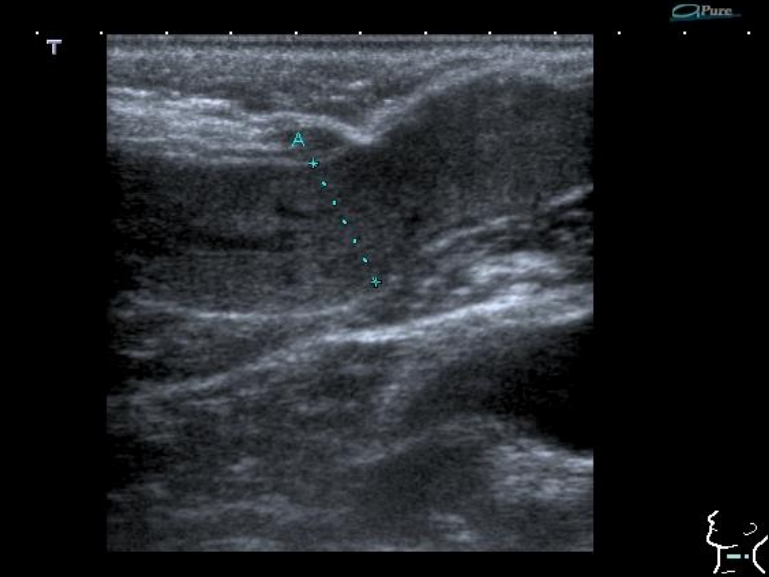
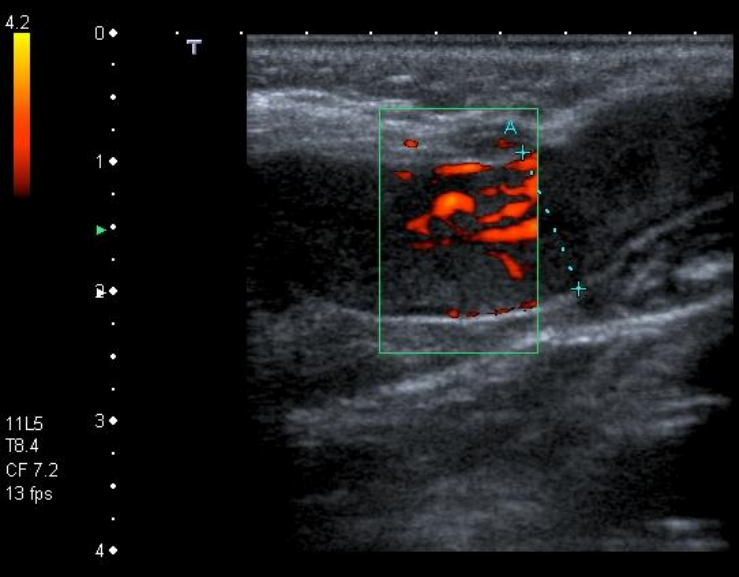
66 éves ffi, 11 évvel nephrectomia
után patológiás femur fractura



1 évvel
később

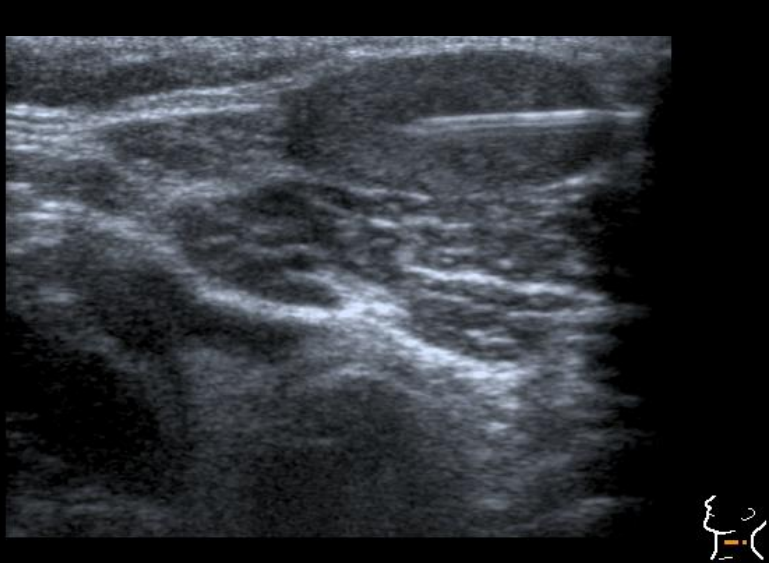
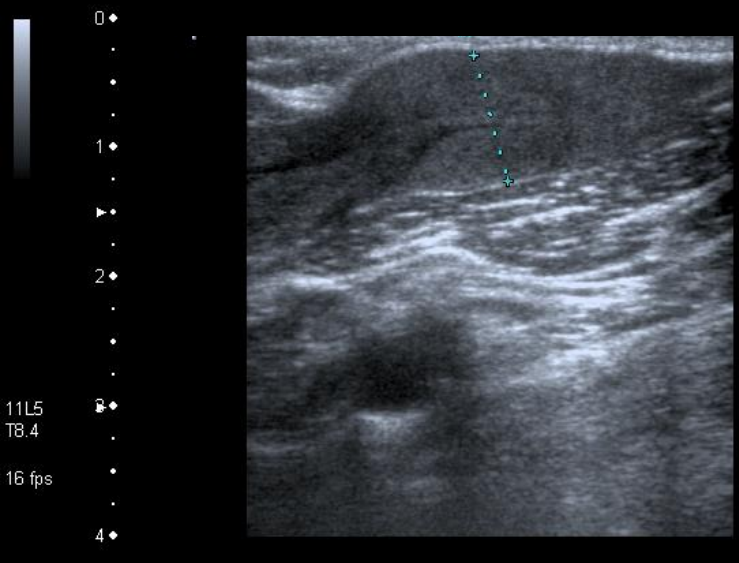






2DG 99 DR 60

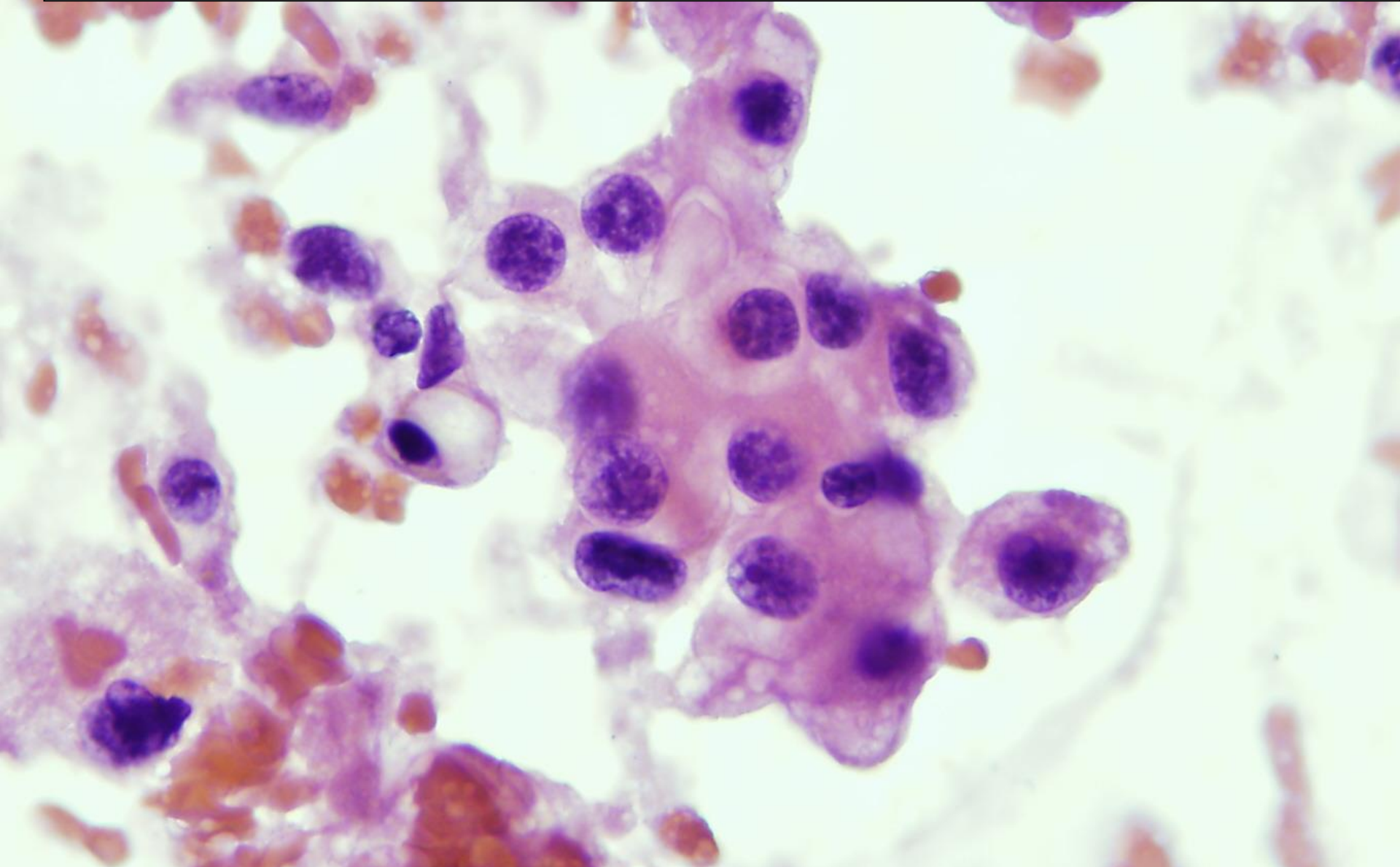
64 éves ffi Bal oldali nyaki tömöttség miatti vizsg.

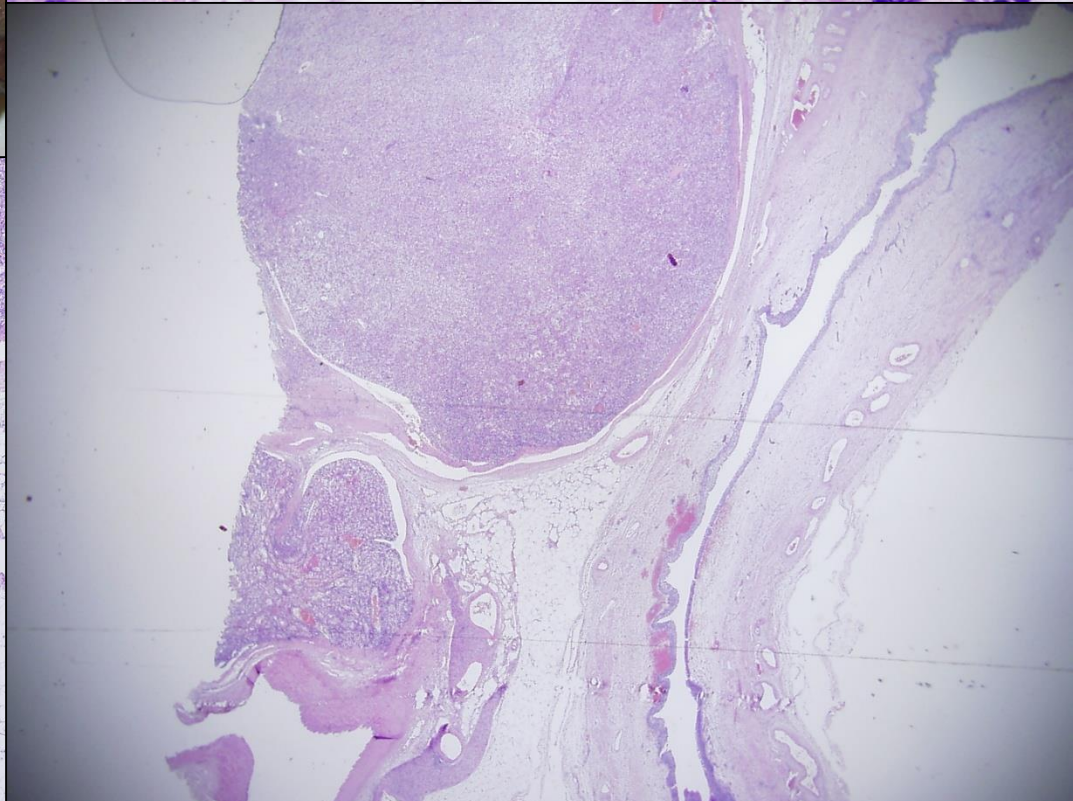
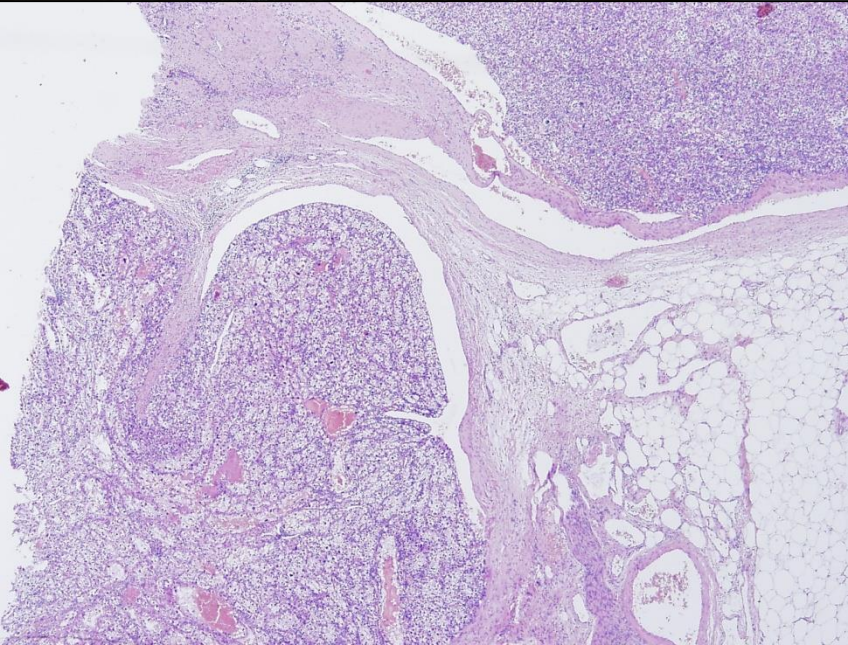
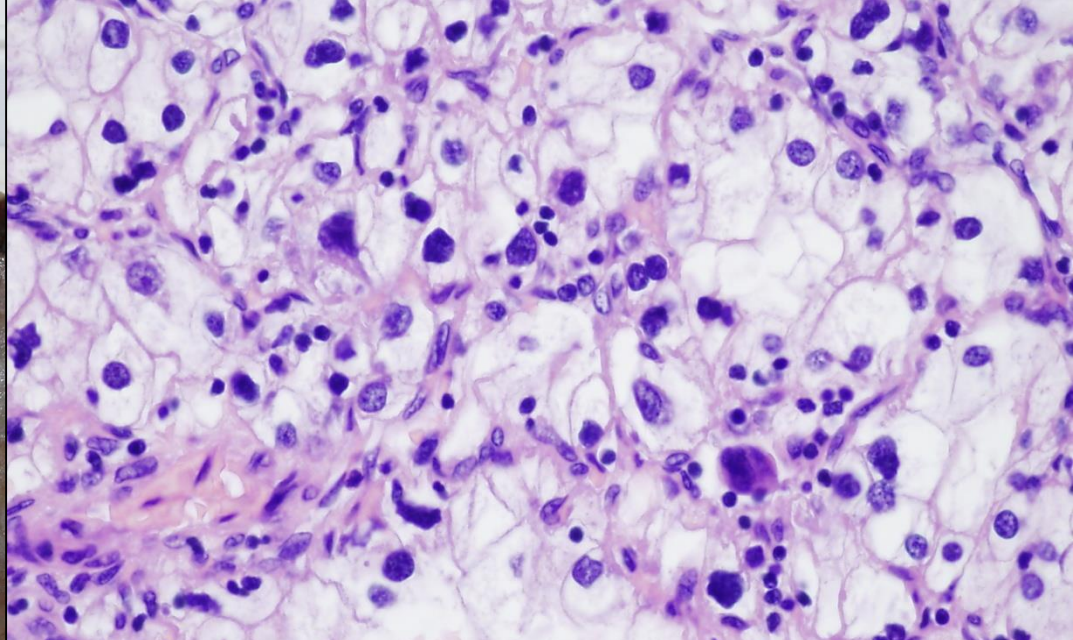


MI:1.2 2DG 99 DR 60

Dg.: világos vacuolisált cytoplasmájú daganatsejtek jelenléte
- alapján első helyen vesében keresendő a primer tumor.

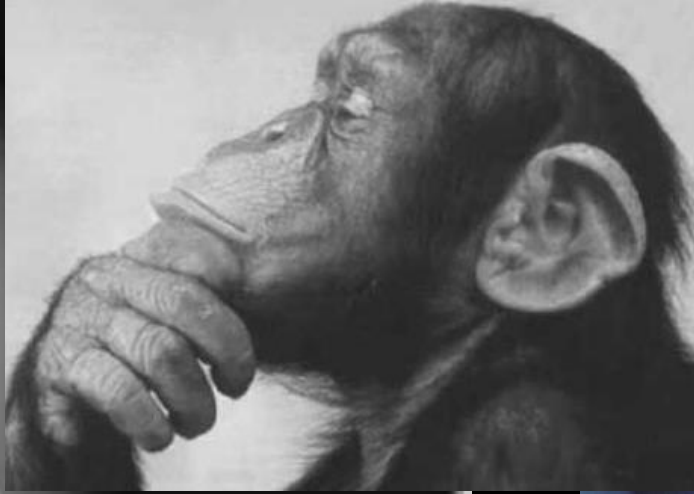
/A localisatio miatt világossejtes nyálmirigy tumor
lehetősége is felmerül, esetleg tüdőtumor nyaki metastasisa/.

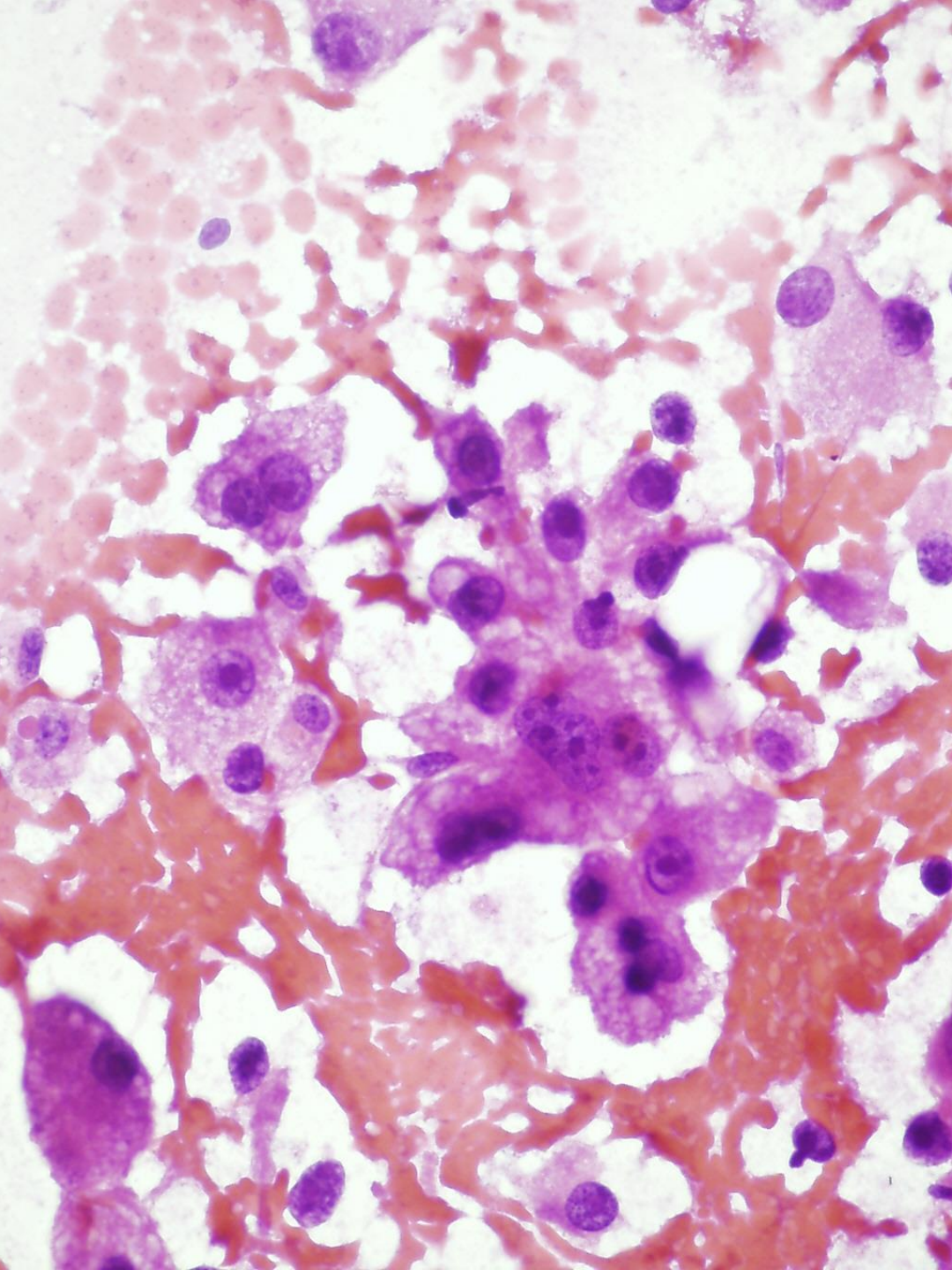
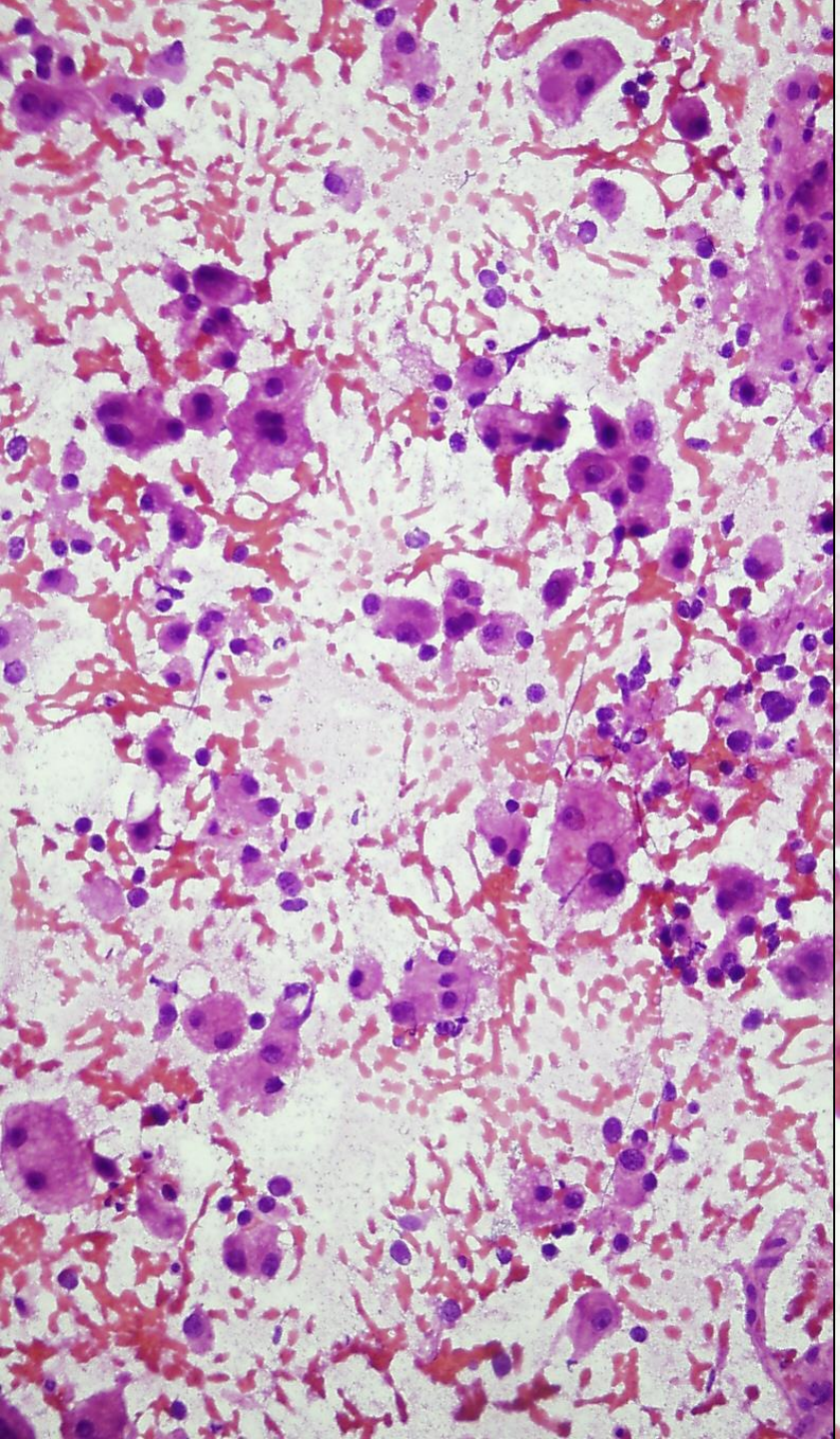


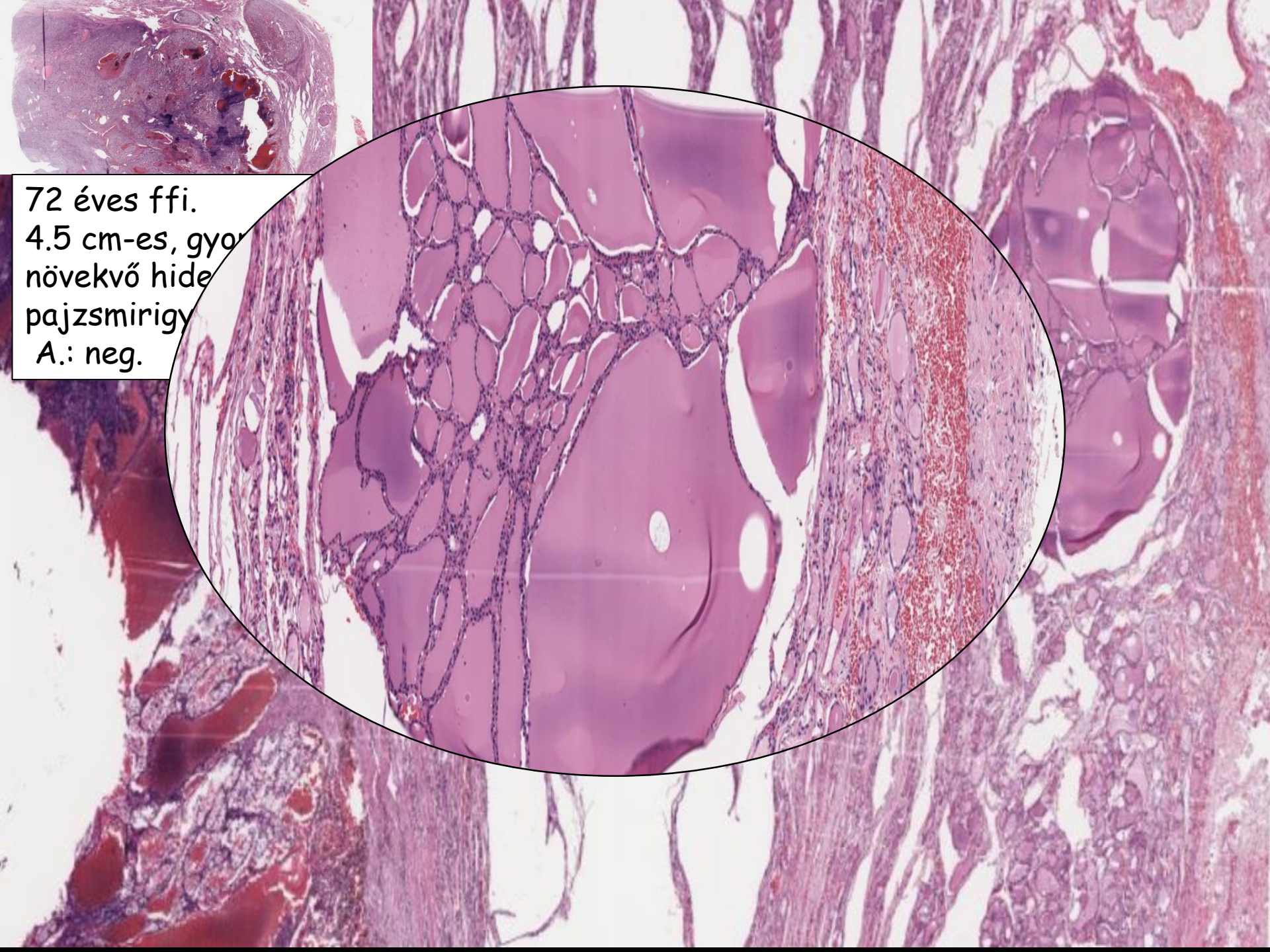




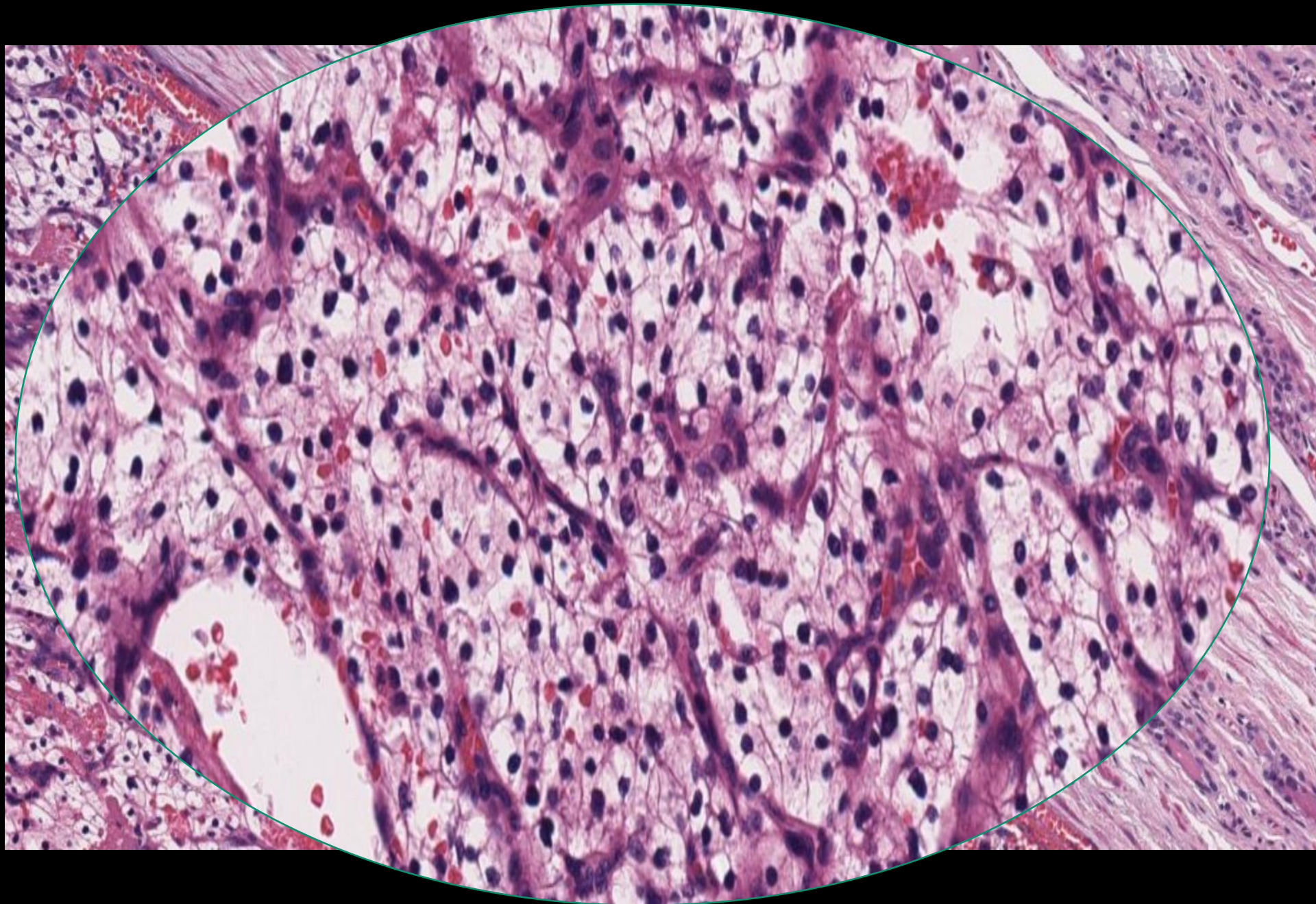
65 éves ffi. Patológiás humerus fractura. 3 hetes gipszviselés után.....

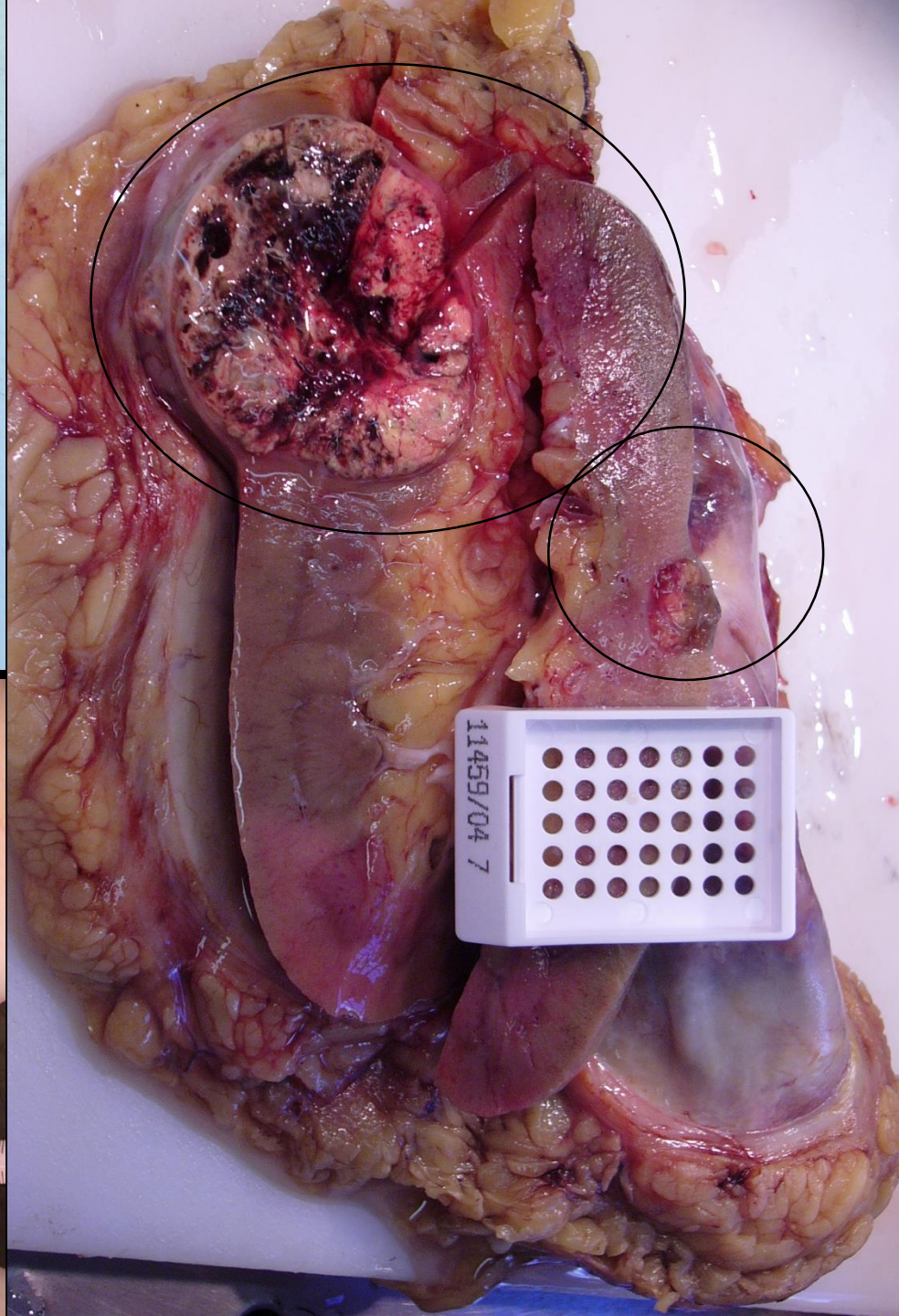
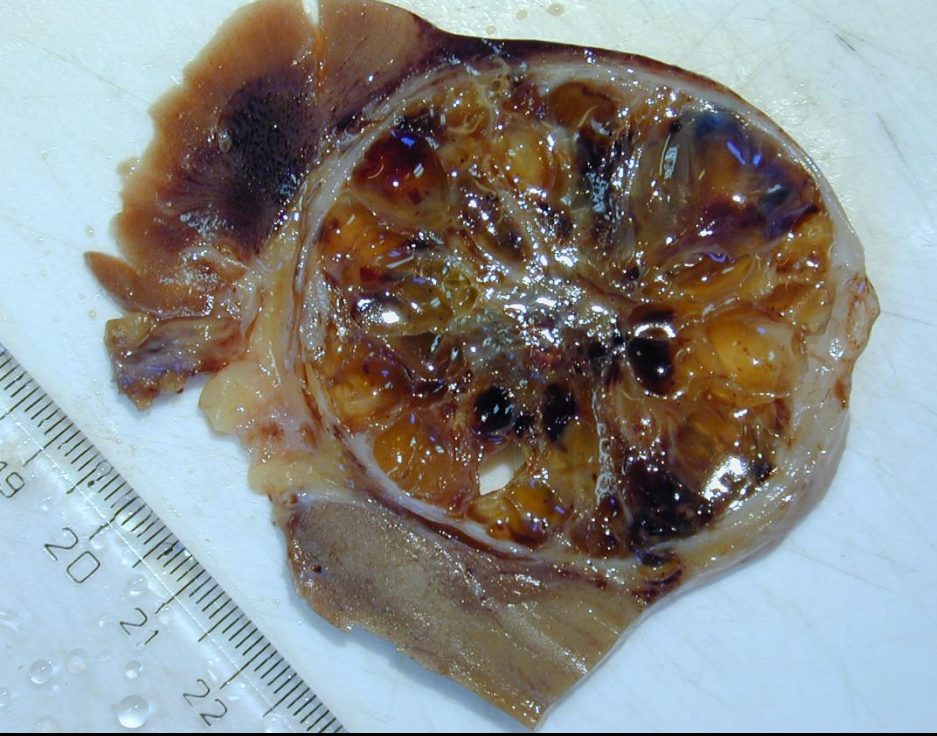


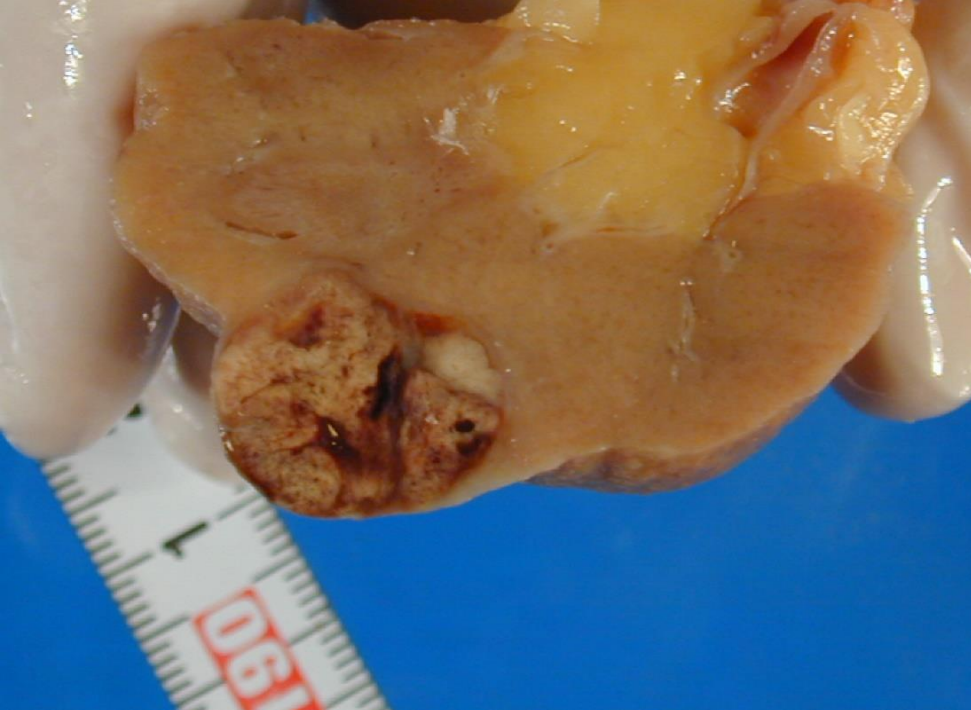




72 éves ffi.
4.5 cm-es, gyors
növekvő hideg
pajzsmirigy
A.: neg.







Vesedaganatok kialakulásának rizikófaktorai

Környezeti ártalmak

cigaretta

petróleum

festékipar,
festők

nehézfémek

labor-dolgozók

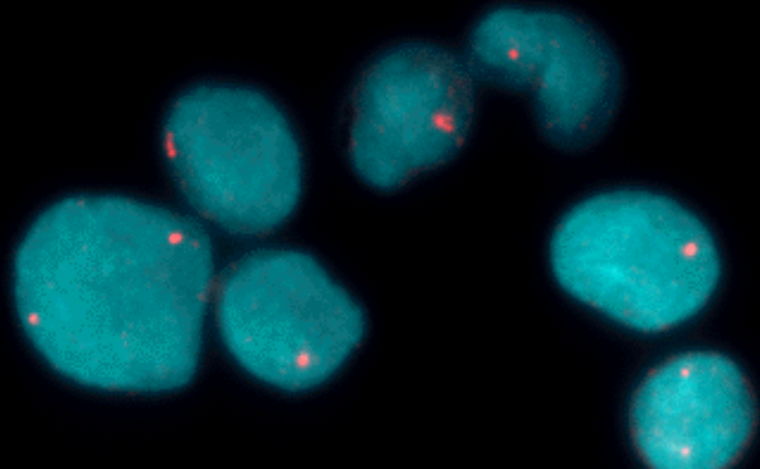
azbeszt-tűzoltók

obesitás

hypertenzió

oestrogen terápia

Von Hippel Lindau



RCC- Chromosoma eltérések

Chr. Abn.: 3-3p14/3p.26 trans.,
del, VHL gén(3p25.3)

7,16,17 triszómia, Y vesztés, X;1
transl (papill. Cc.)

96% sporadikus

4% familiáris

VHL

Herediter familiáris RCC - VHL gén,

VHL egyéb manifesztációi nélkül

Herediter papilláris carcinoma

A vese daganatai

A vesedaganatok hisztogenezise

Tubulushám

Papilláris adenoma

Oncocytoma

Világossejtes veserák

(veserák=vesesejtes carcinoma)

Multilokuláris cisztikus vesetumor

Papilláris veserák

Kromofób veserák

Világossejtes papilláris veserák

Mesenchyma

Angiomyolipoma

Metanefrogén elemek

Metanefrikus adenoma

Nephroblastoma

(Wilms-tumor)

Vesedaganatok

Benignus

Nephrogén adenoma
Oncocytoma
Angiomyolipoma

Malignus

RCC

közönséges
cysticus
papilláris
chromophob sejtes
Világossejtes papilláris
veserák
sarcomatoid

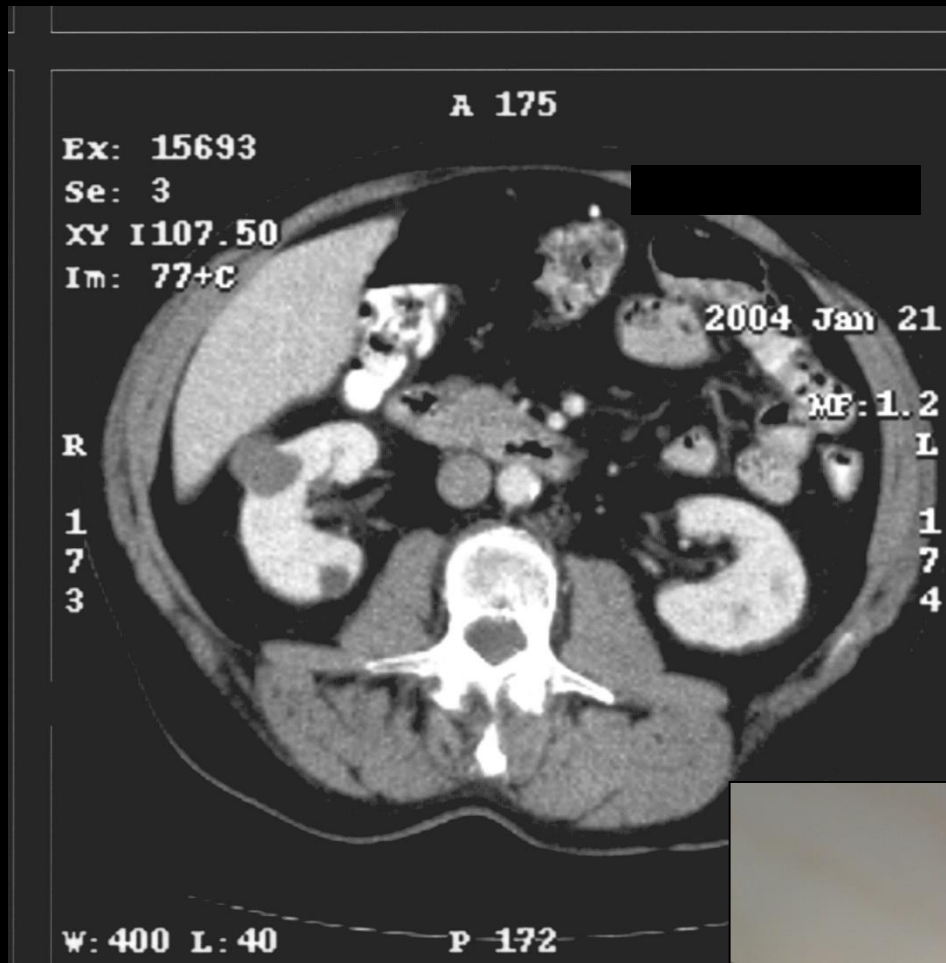
UCC

Wilms

Malignus, nem RCC

Mesenchymalis

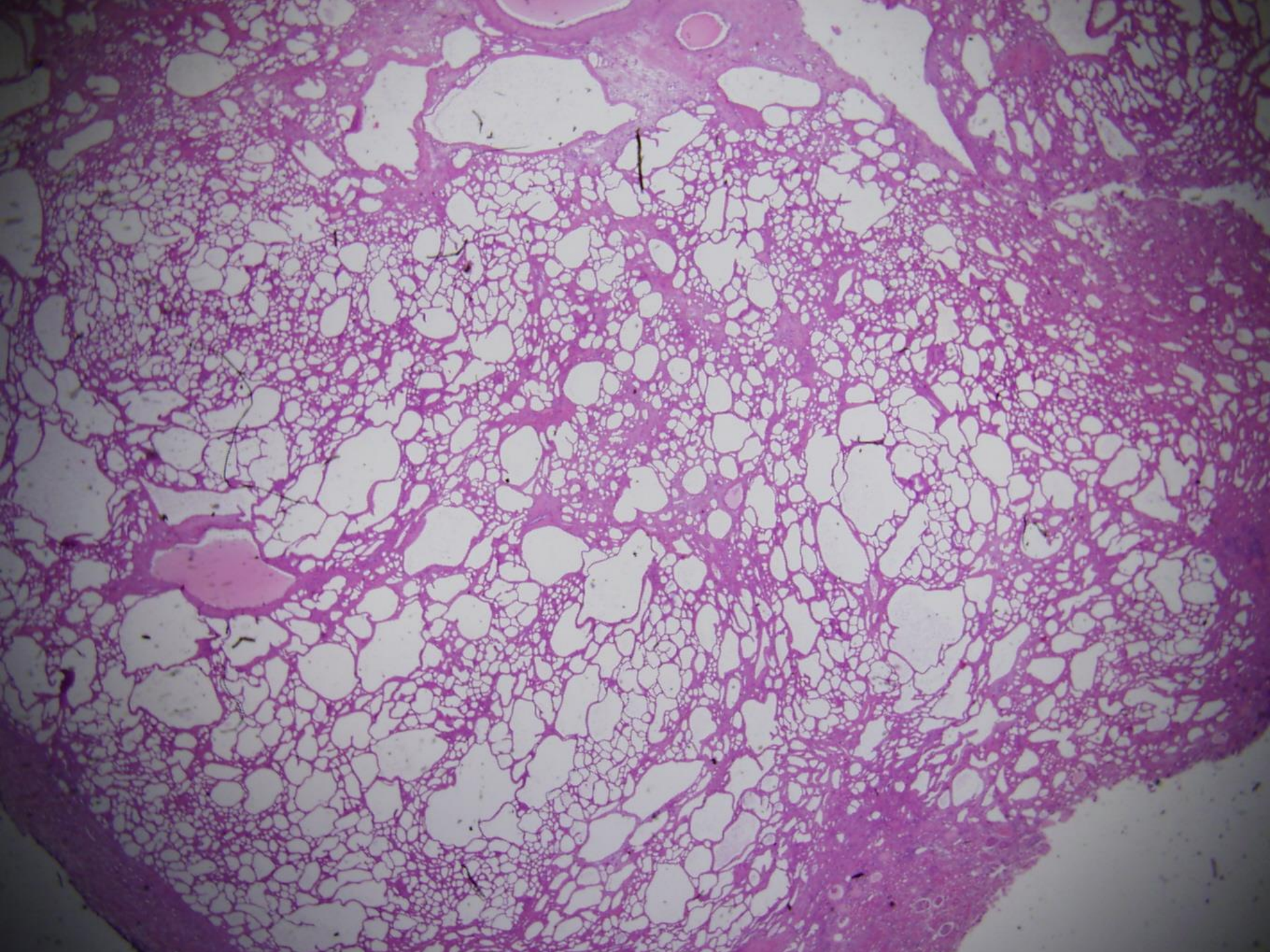
Lymphoma, leukaemia
Mal. angiomyolipoma
Áttétek

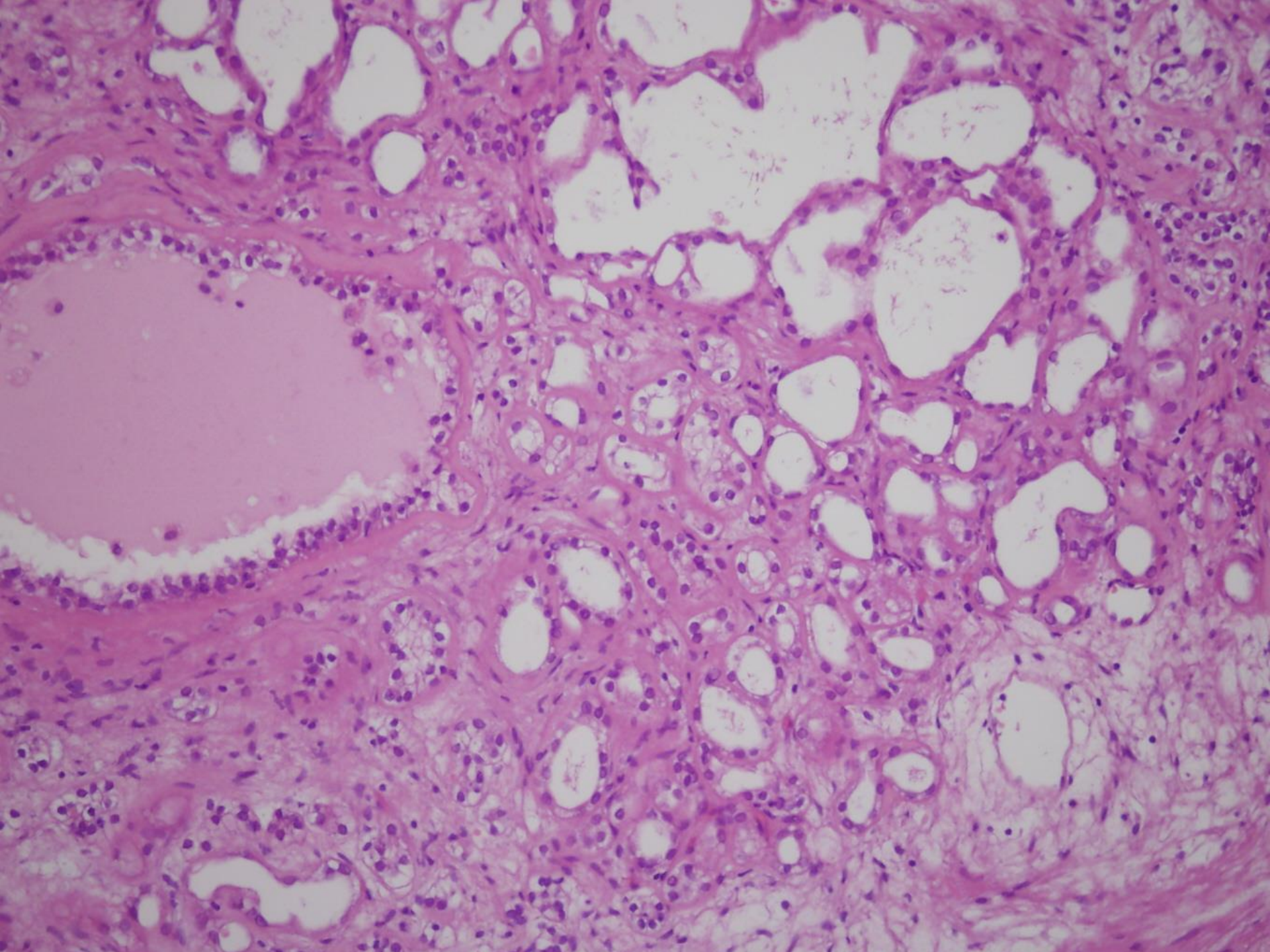


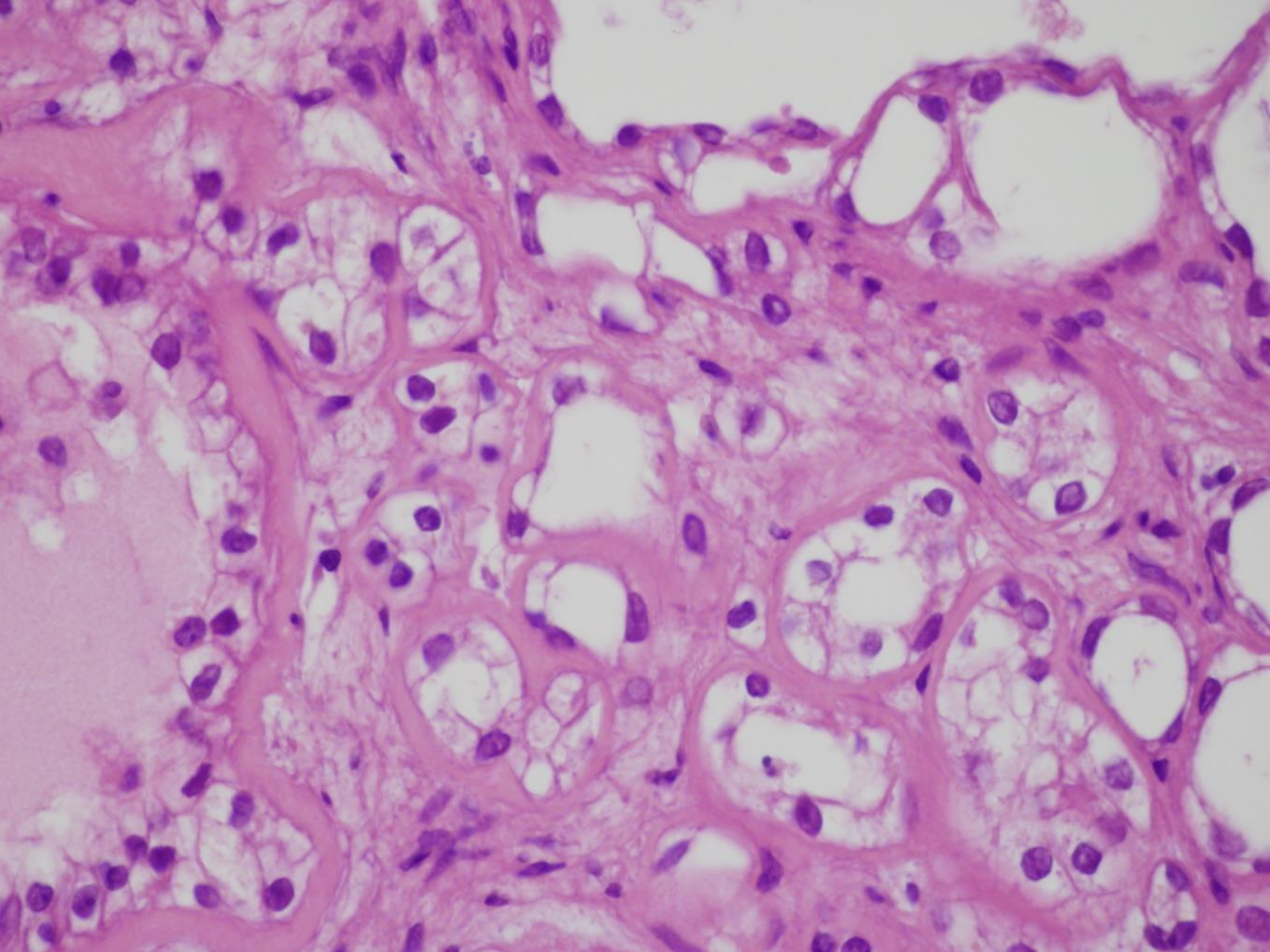
N. L. vese cysta?

RCC ?









Multilokuláris cisztikus vesetumor alacsony malignitási potenciállal

A veserákok kb. 2-3%-a

Középkorúak, általában véletlenül felfedezett

Kizárólag változatos méretű, vékony falú cisztákból áll

Alacsony grádusú tumorsejtek: ciszták belfelszíne, kis csoportokban a szeptumokban

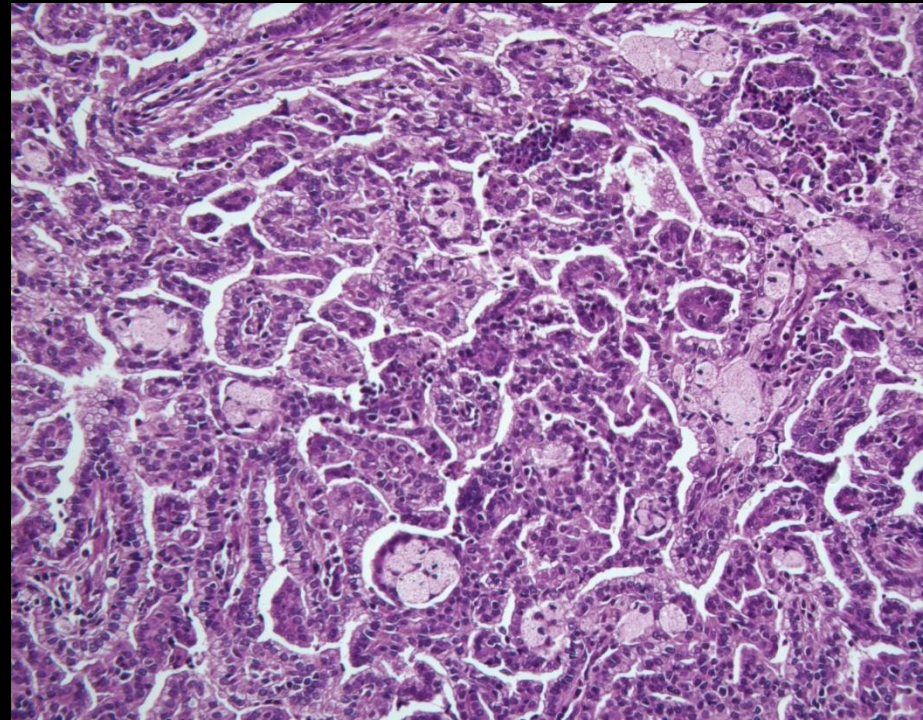
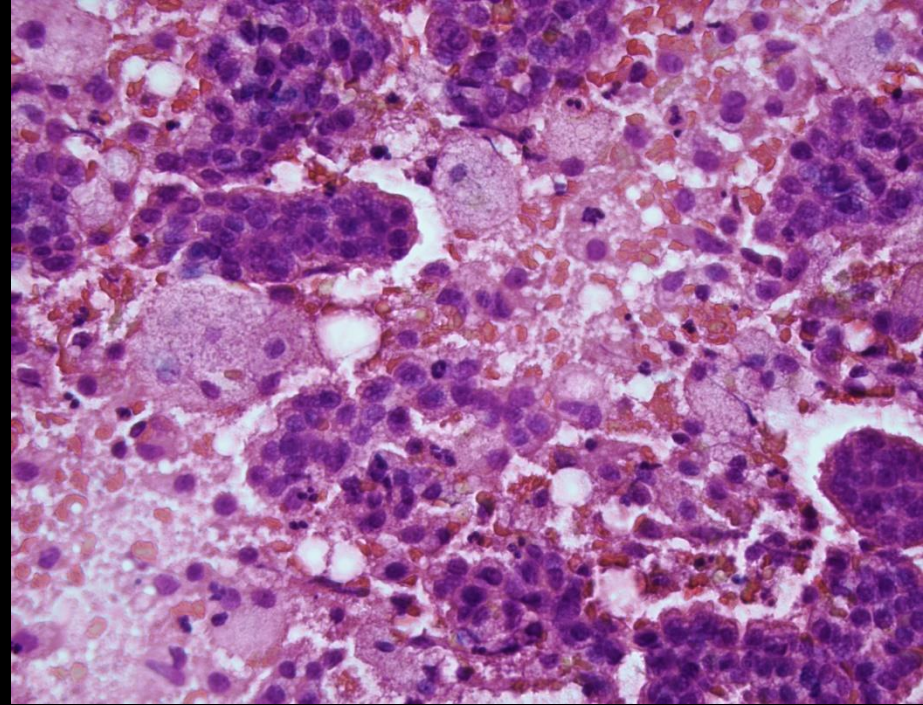
Kitűnő prognózis

Papilláris veserák

Második leggyakoribb (kb. 12-15%)

Gyakrabban multifokális

1. típus: Köbös sejtek, habos citoplazmájú
makrofágok, (psammomatestek)



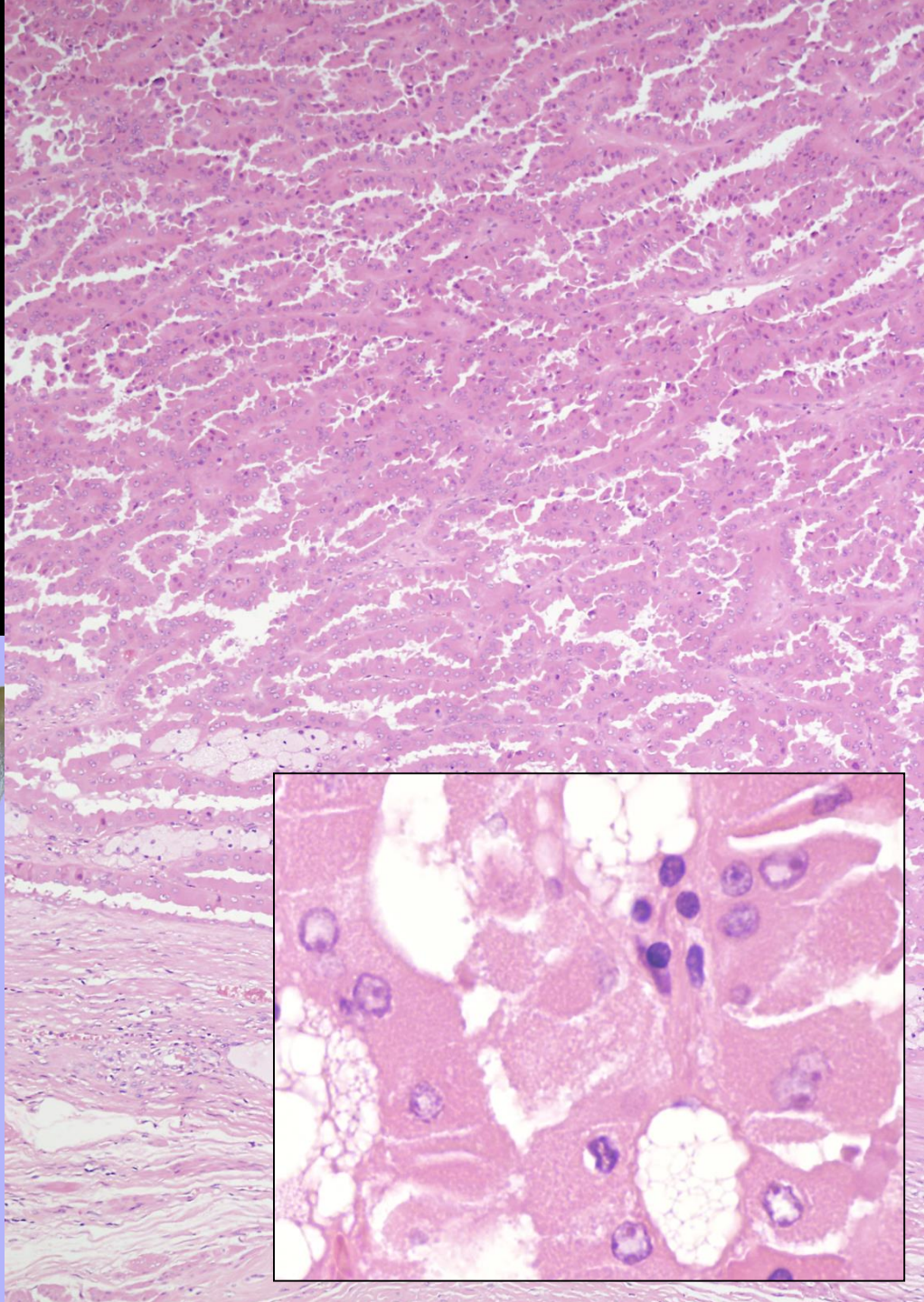
Papilláris veserák

2. típus

Nagyobb sejtek, magasabb grade

Roszbabb prognózis

Jellegzetes genetikai eltérések: triszómiák
(7, 17, 12, 16 20), Y vesztés, c-met mutáció



Kromofób sejtes veserák

Kb. 4-5%

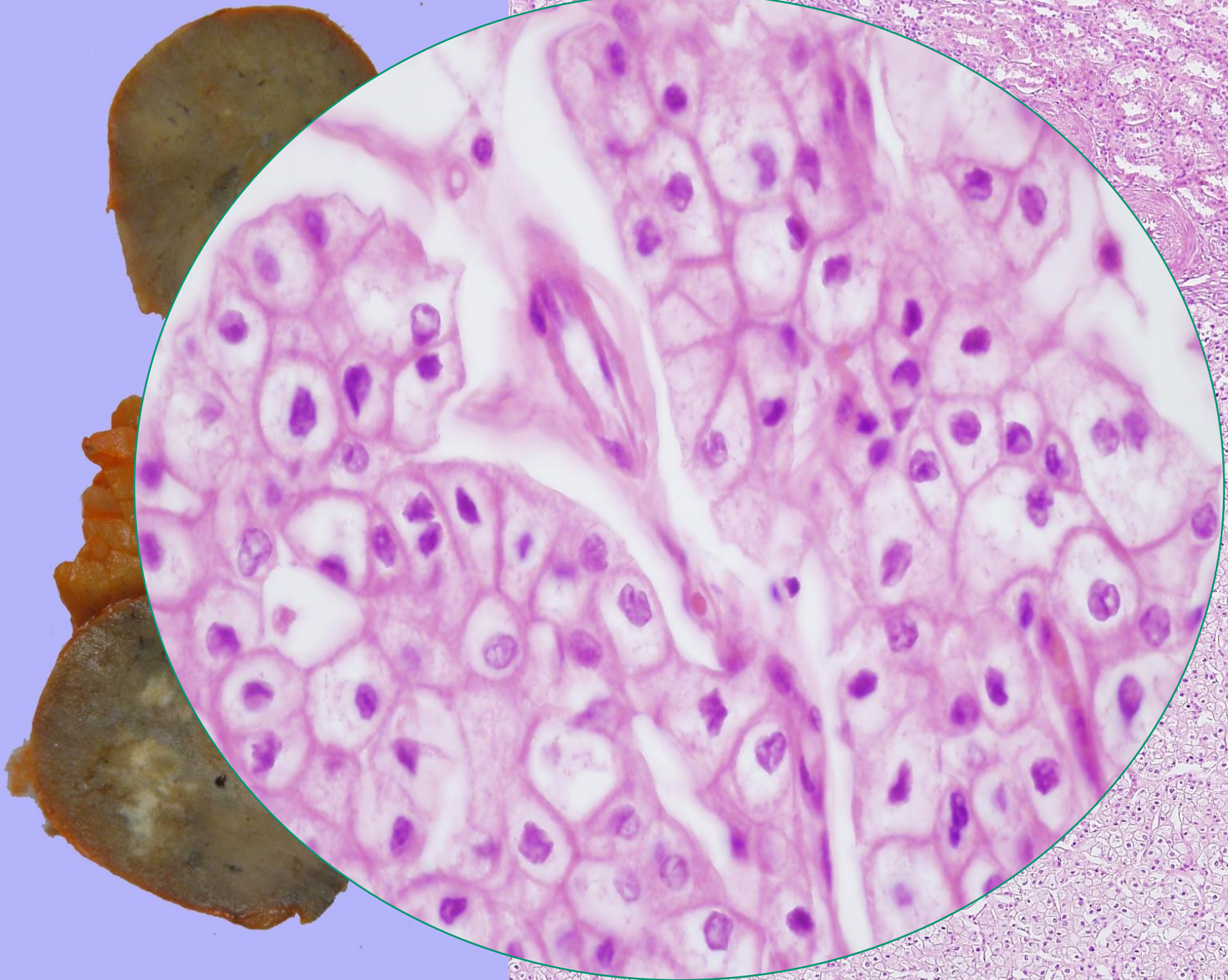
Jól körülírt, szürkésbarna

Világos, vagy eosinophil citoplazma, éles sejthatárok, kétmagvú alakok, mazsolaszerű magok, perinukleáris halo

Kiterjedt kromoszómavesztések

Kedvezőbb prognózis

DD: oncocytoma



Benignus daganatok

Angiomyolipoma

Benignus tumor

Képkalkotókkal vese cc-t utánozhat

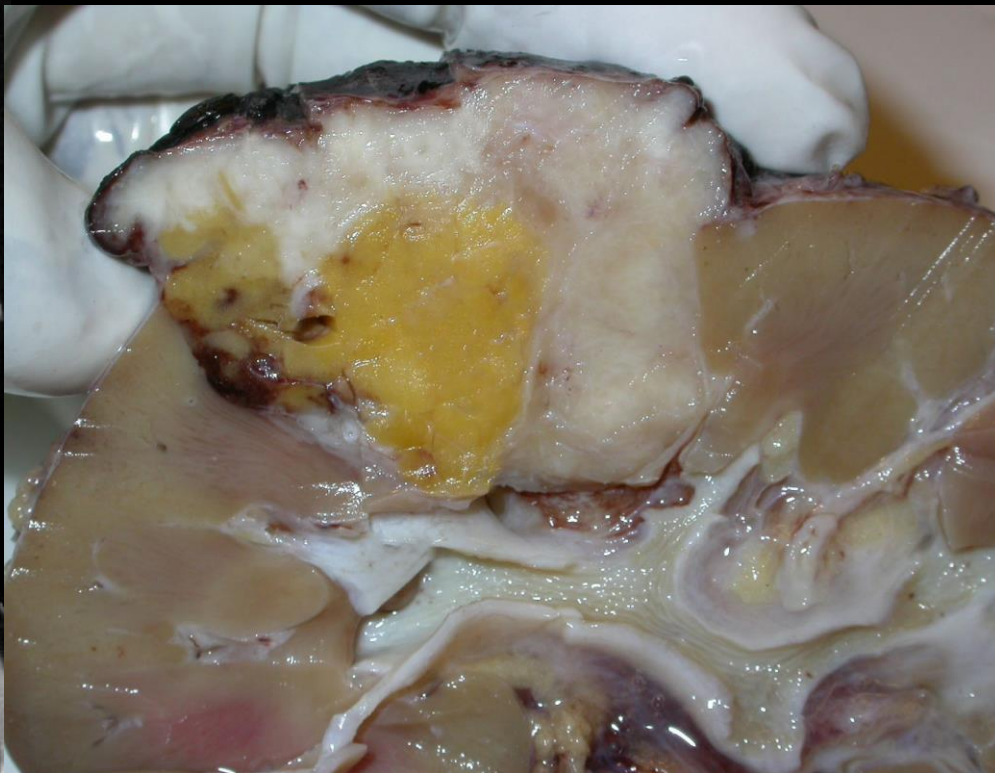
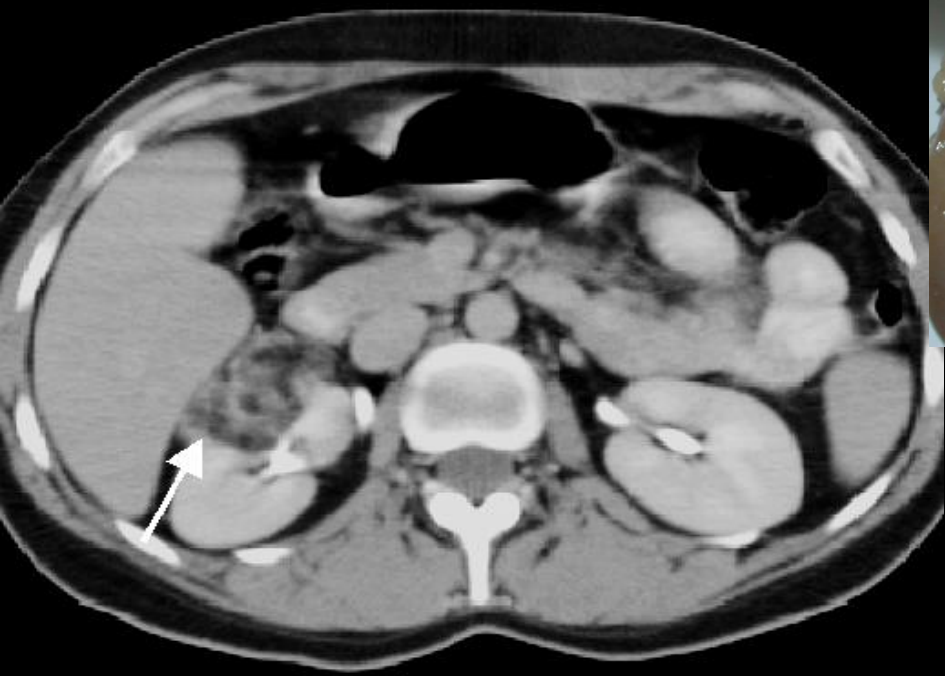
Nagy méret - vérzés veszély

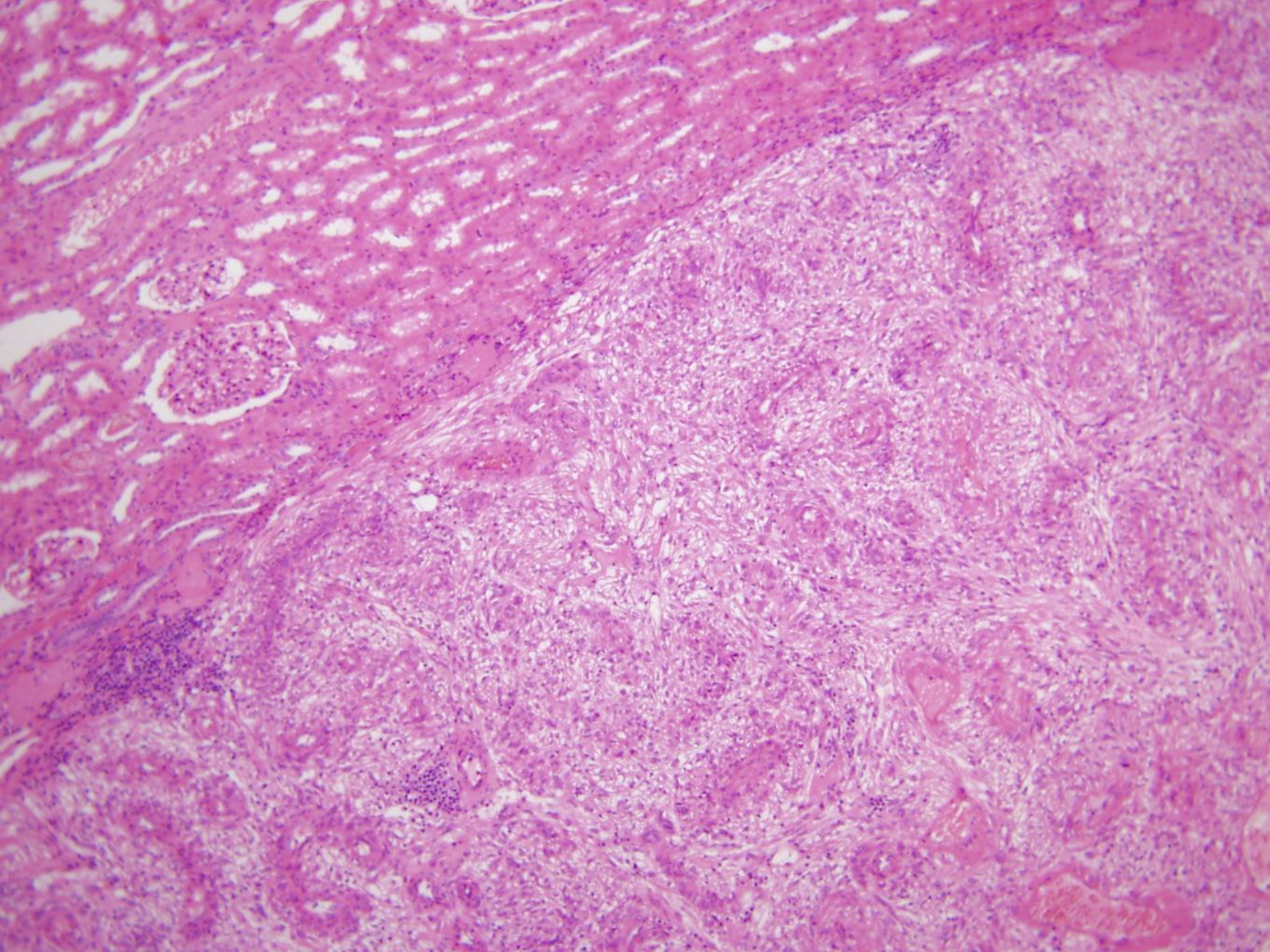
Simaizom, - zsírsejtek, erek

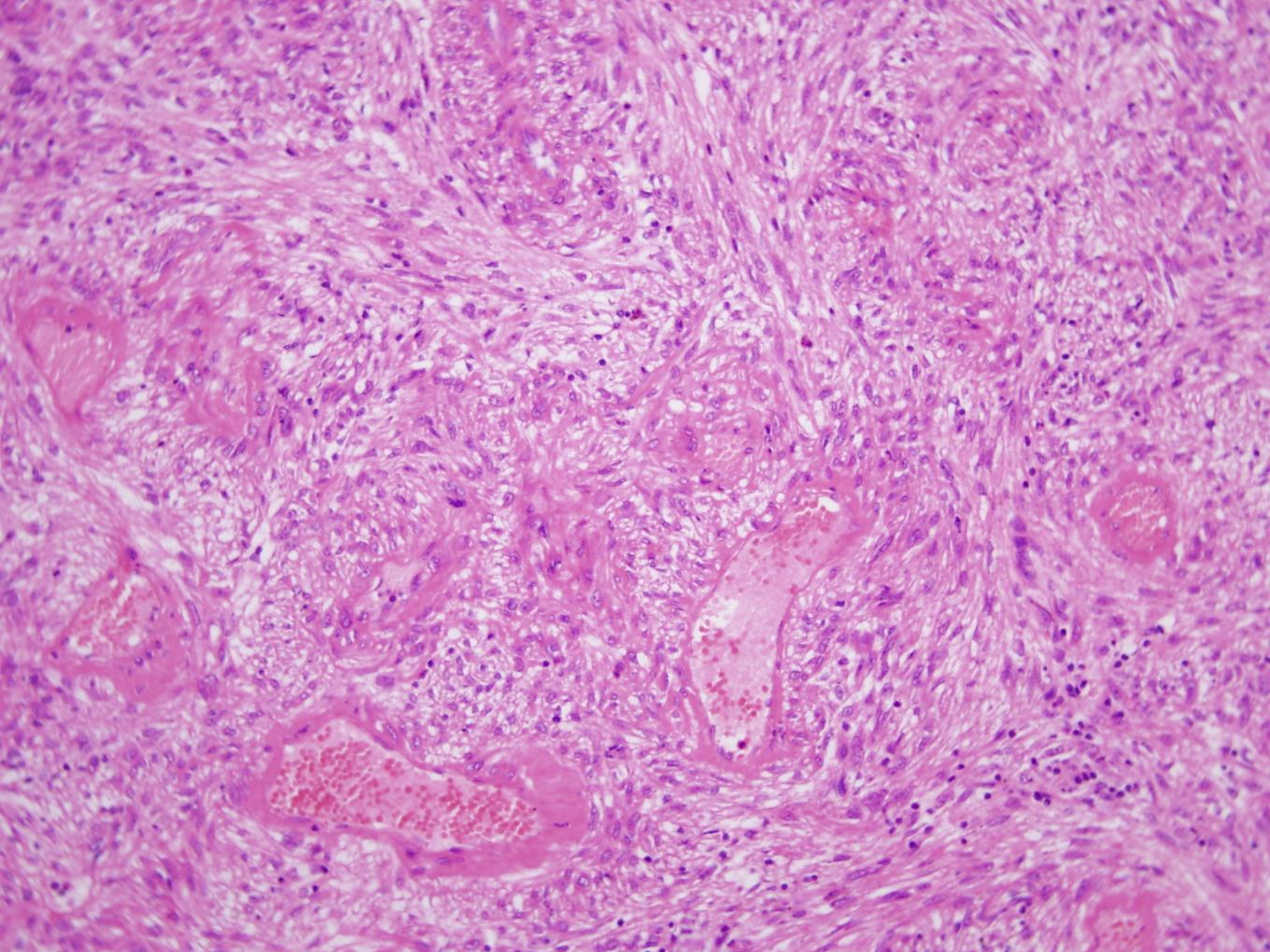
IH: SI-actin, HMB-45 poz.

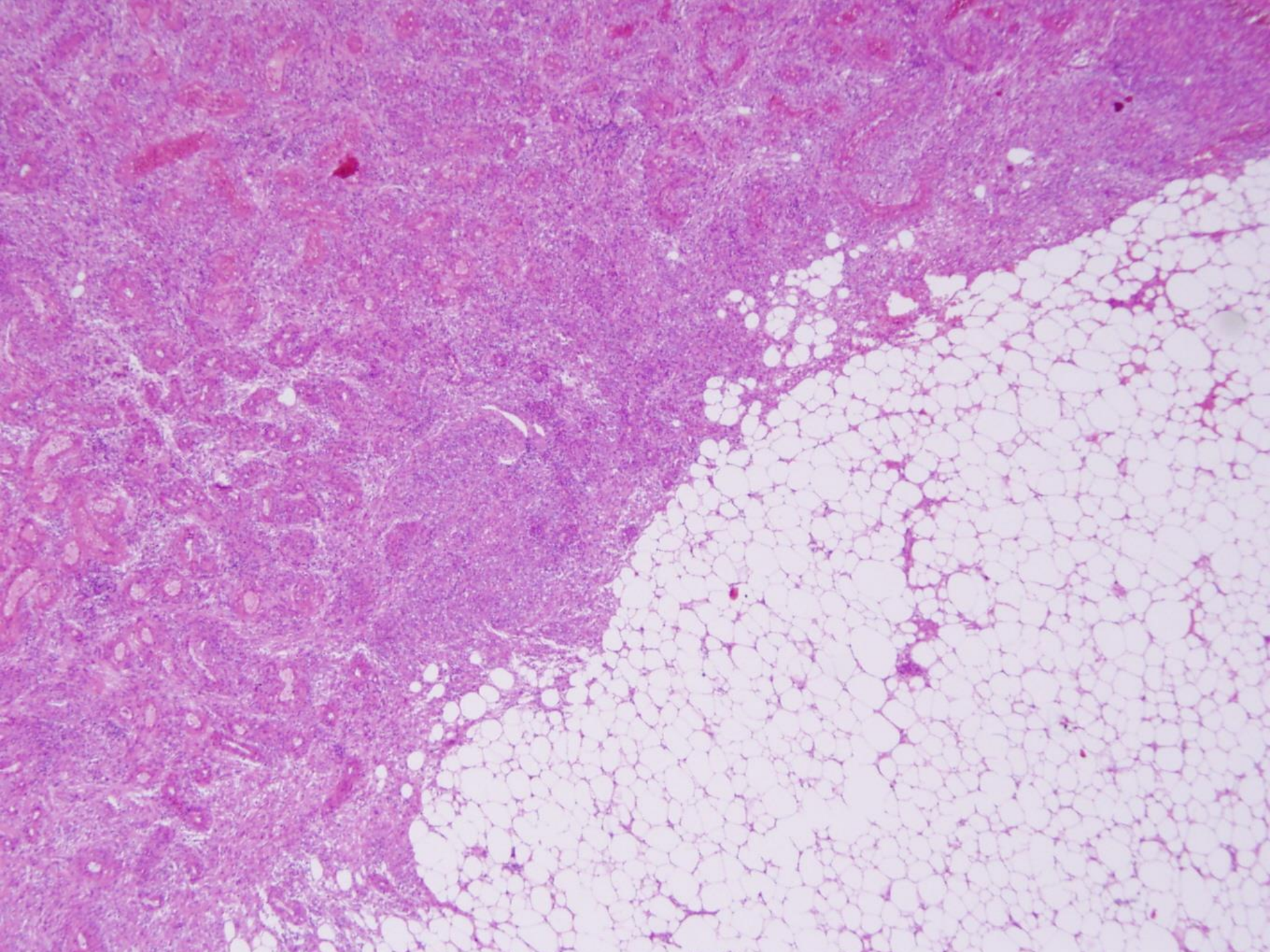
Az eltávolított tumorok kb. 1%-a, de ennél gyakoribb (UH-val felfedezett, nem operált daganatok)

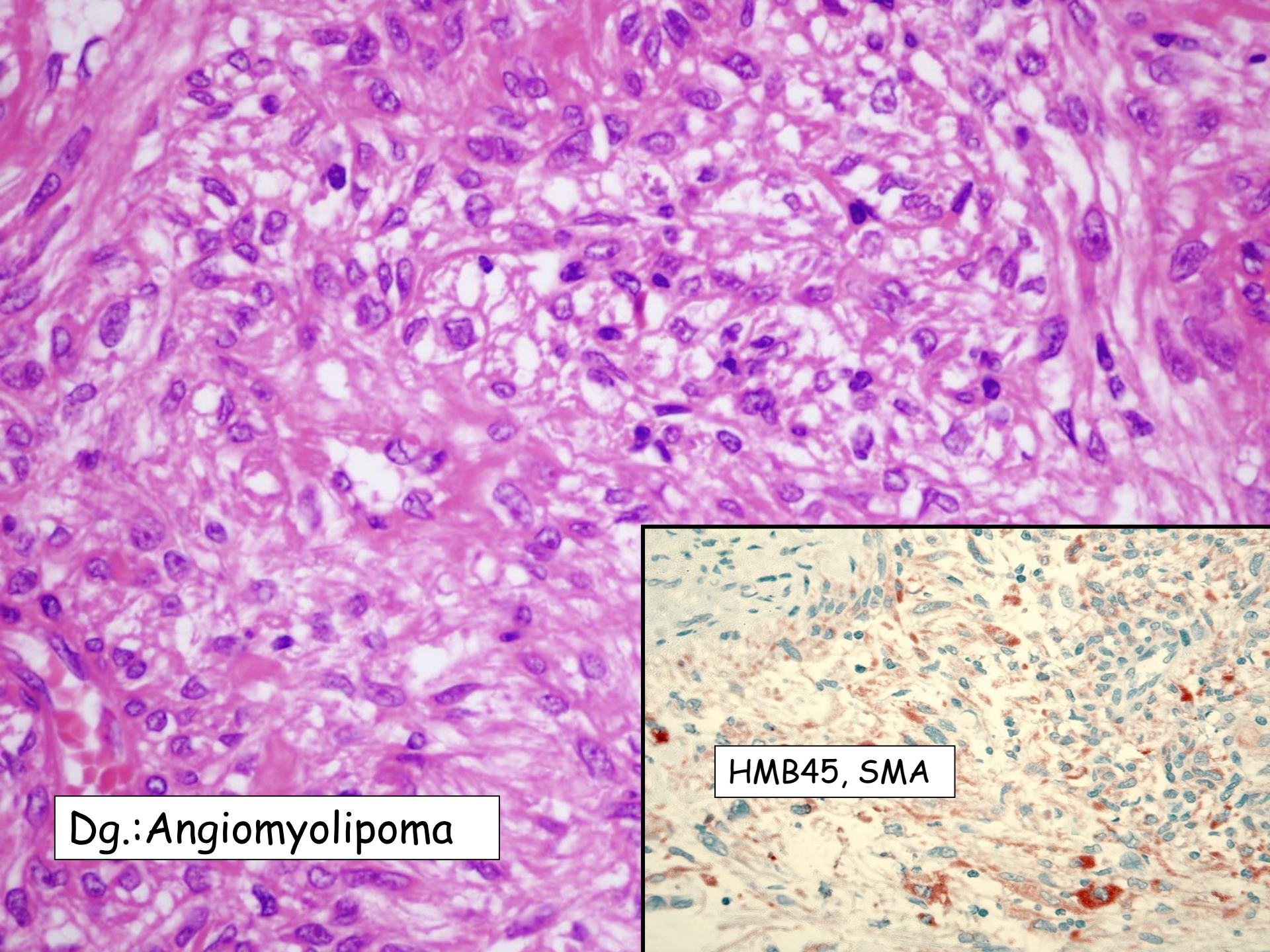
PEComa: *perivascular epithelioid cell* tumor csoportba tartozik



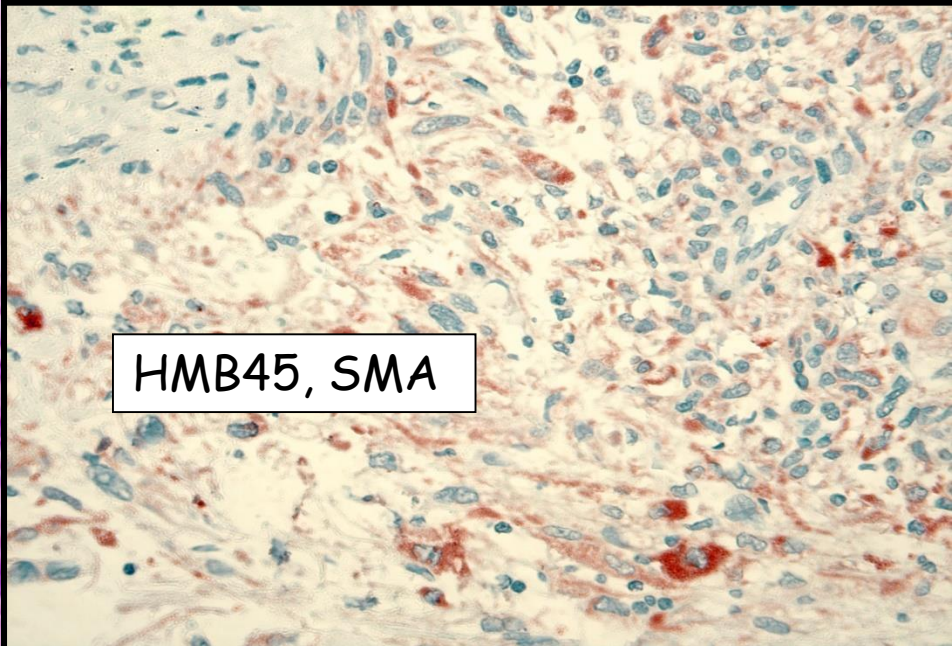








Dg.:Angiomyolipoma



HMB45, SMA

Oncocytoma

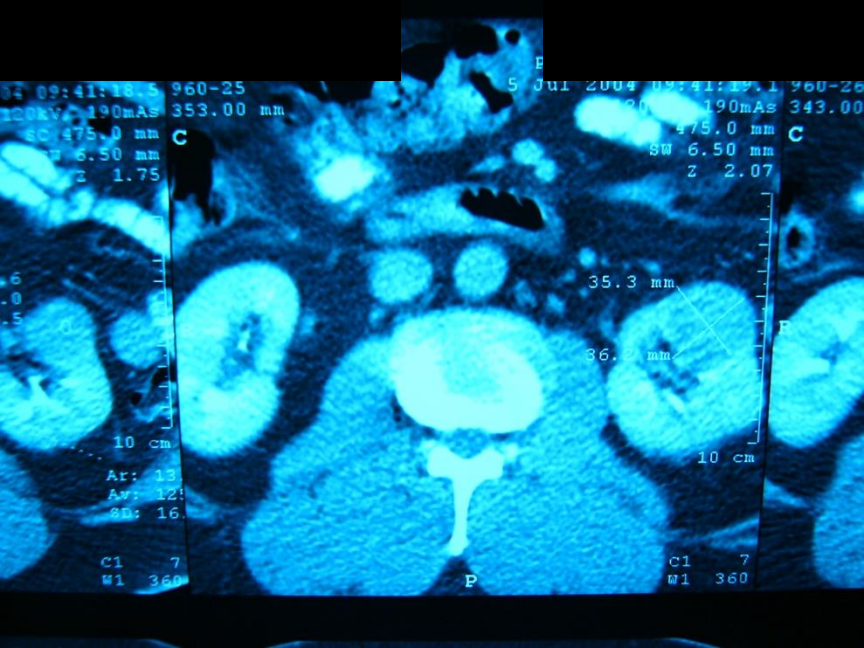
A vesesejtes tumorok 5%-a

Mahagónibarna, jellegzetes centrális heggel

Fészkes, trabekuláris szerkezet, degeneratív jelenségek

Oncocyter sejtek (széles, szemcsézett eozinofil citoplazma) békés kép

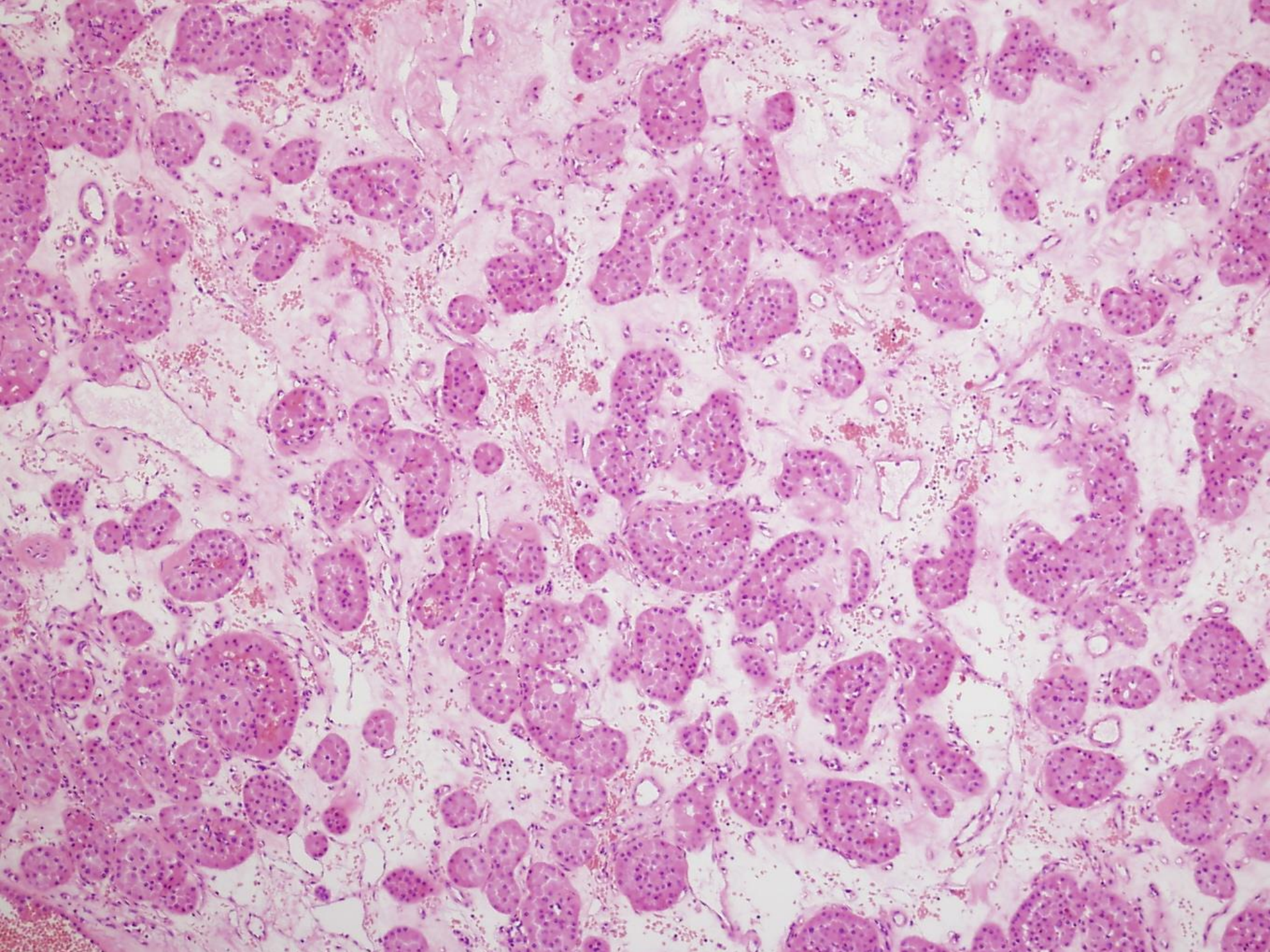
(de fokálisan: bizarr magok, extracapsuláris terjedés, érbetörés....)

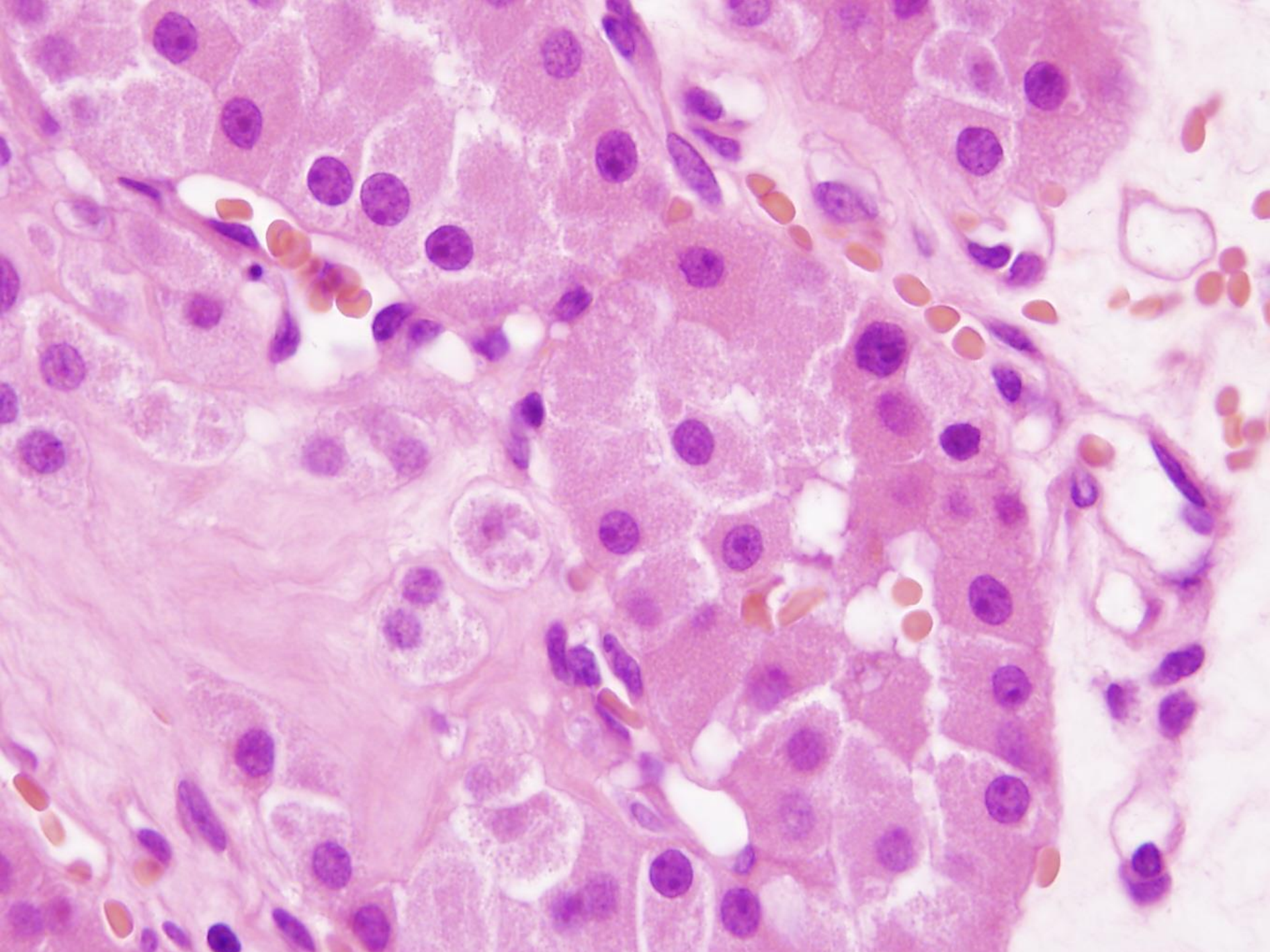


49 éves férfi

Vesetumor







Metanefrikus adenoma

Nőkben gyakoribb, 50-60 éves korban

Átlagos méret 5 cm

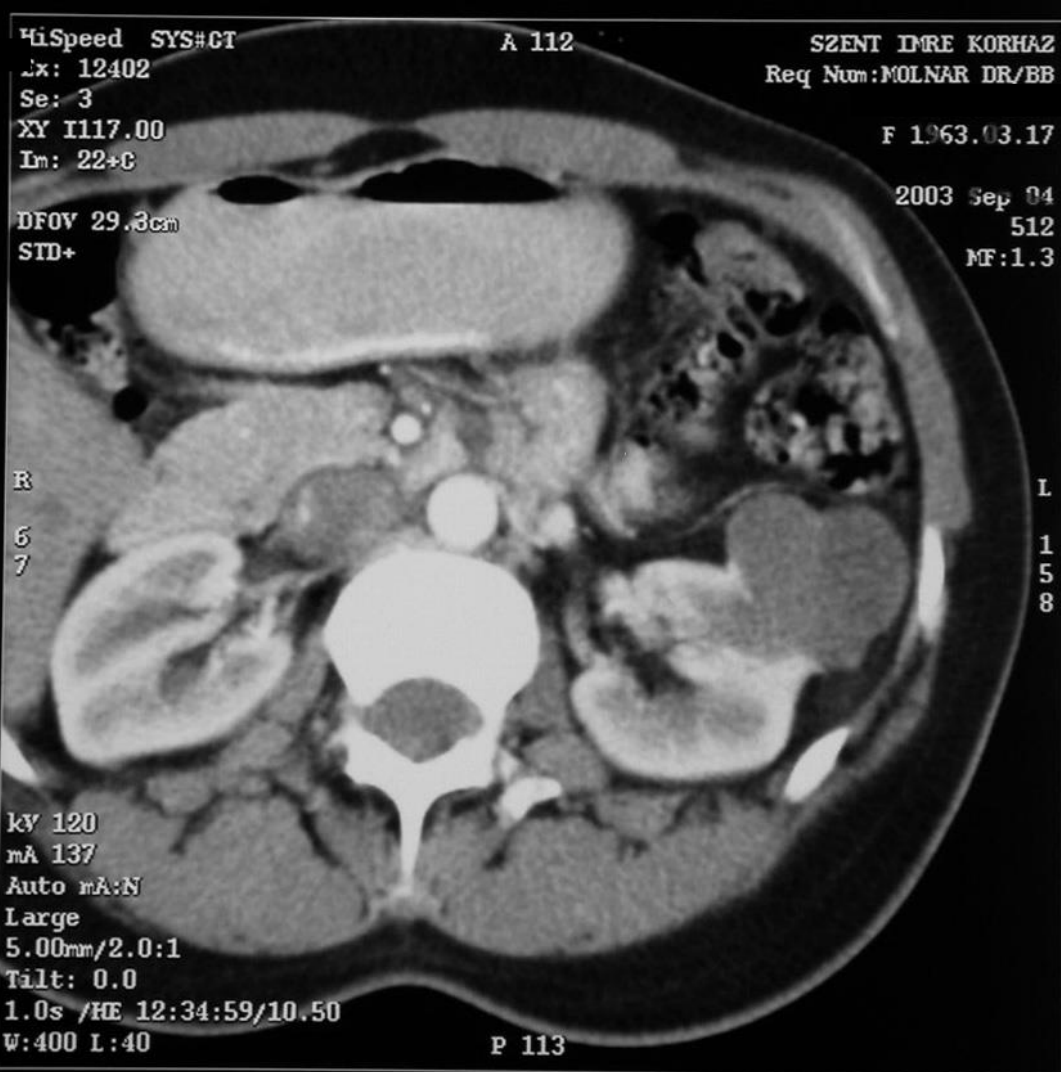
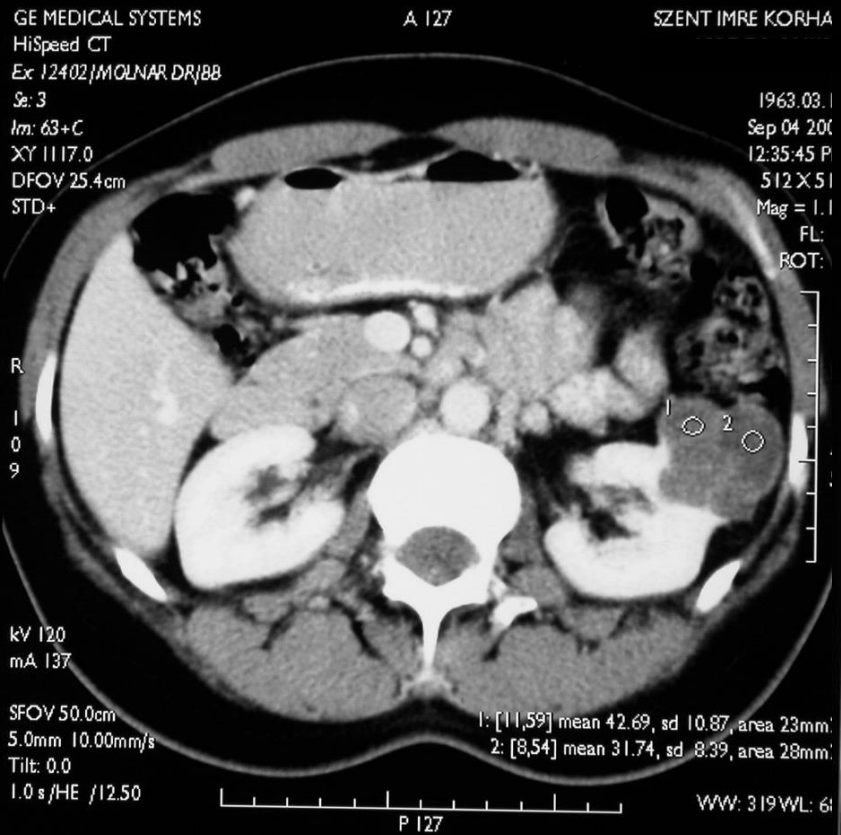
Szürkésbarna, szolid, cisztikus degeneráció lehet

Jól körülírt

Acináris szerkezet tubuláris és szolid részekkel

Nincsenek mitózisok

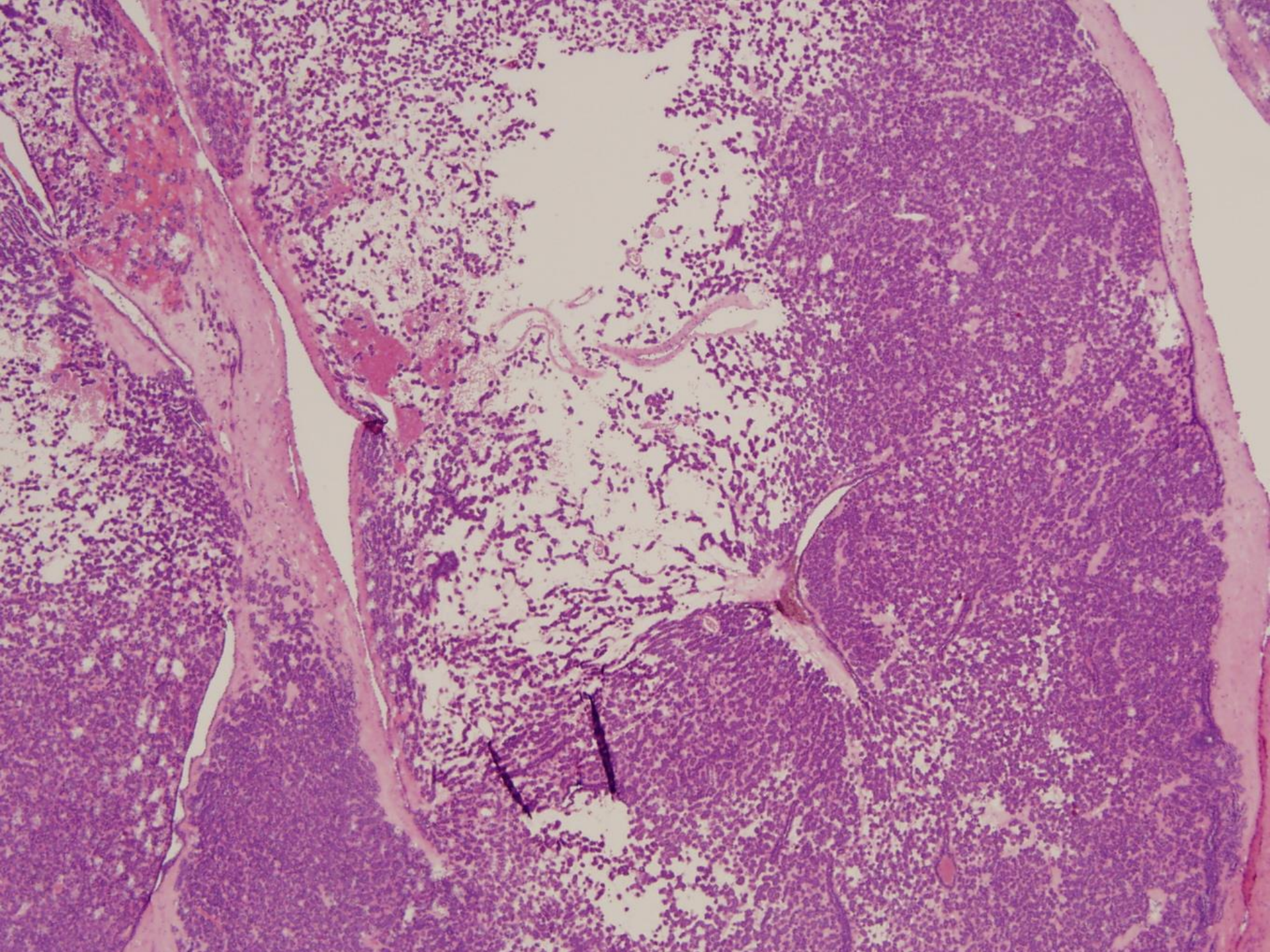
WT1+, CD57+, CK7-, EMA-

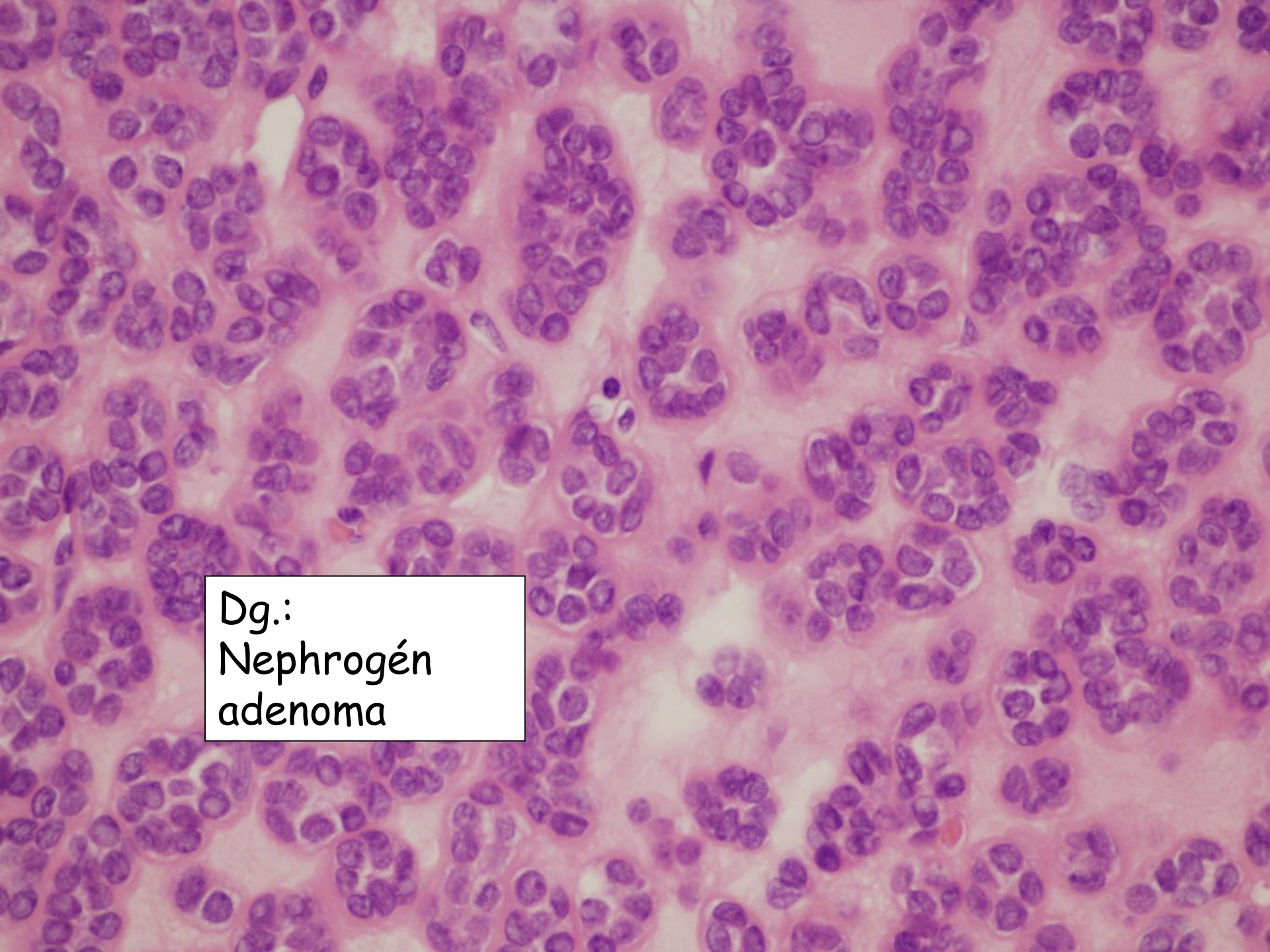


40 éves nő

Vesetumor miatti pólusrezekció

Hist.?





Dg.:
Nephrogén
adenoma

This histological image shows a nephrogenic adenoma, characterized by nests of transitional epithelial cells. The cells are arranged in irregular, rounded clusters and are stained with hematoxylin and eosin (H&E). The nuclei are dark purple, and the cytoplasm and surrounding stroma are pink. The overall appearance is that of a benign, proliferative lesion of the urinary tract.

Prognosztikai tényezők

Stádium

pT:

pT1 - vesére lokalizált veserák, ≤ 7 cm (pT1a ≤ 4 cm, pT1b > 4 cm)

pT2 - vesére lokalizált veserák, > 7 cm (pT2a ≤ 10 cm, pT2b > 10 cm)

pT3 - makroszkópos vénainvázio (vesevéna, VCI) vagy extrarenális terjedés (ERE)

(pT3a vesevéna invázio vagy ERE, pT3b VCI invázio rekesz alatt, pT3c VCI invázio rekesz fölött)

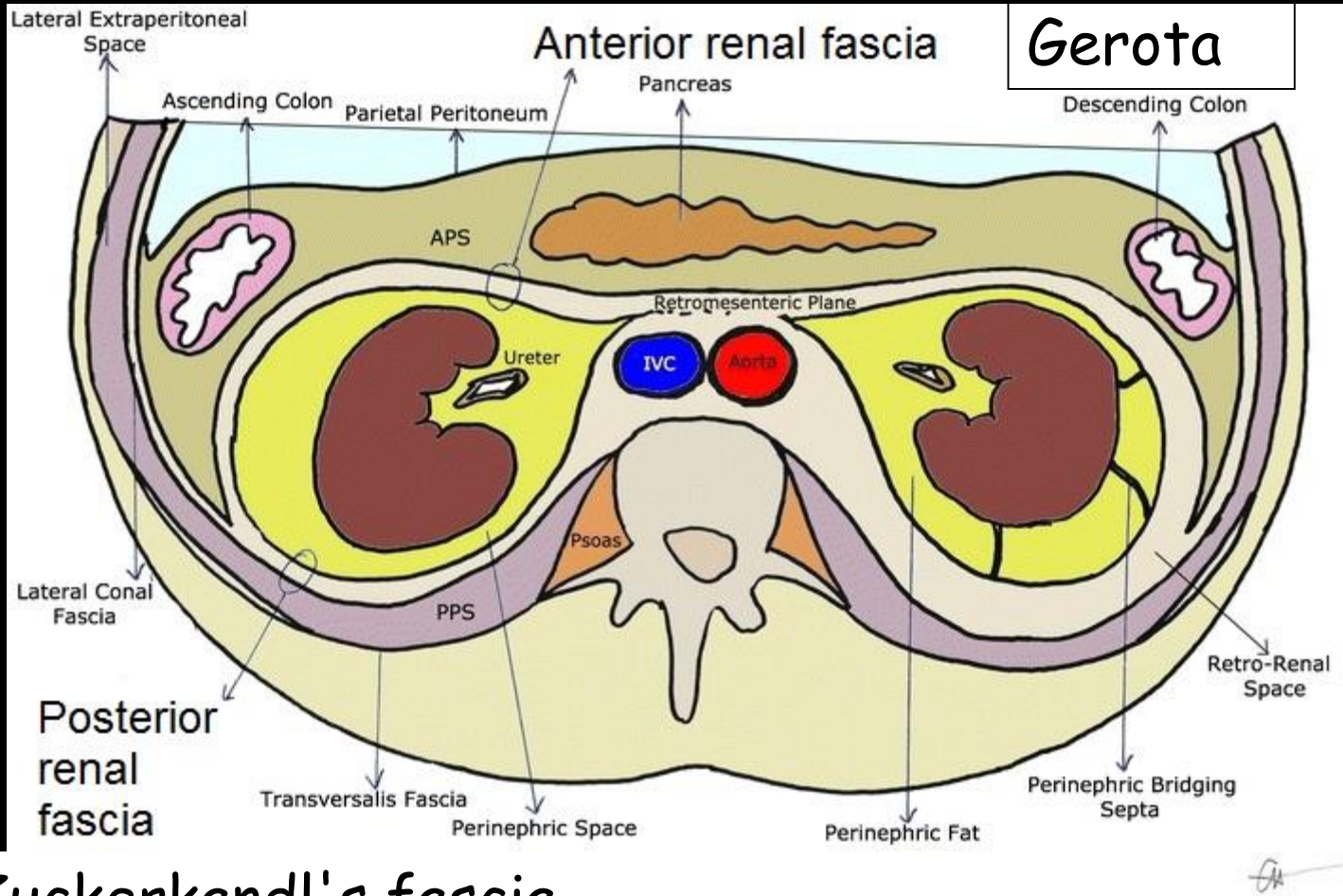
pT4 - Gerota-fascia érintettsége

Grade 1: Inconspicuous nucleoli at $\times 400$ magnification and basophilic.

Grade 2: Clearly visible nucleoli at $\times 400$ magnification and eosinophilic.

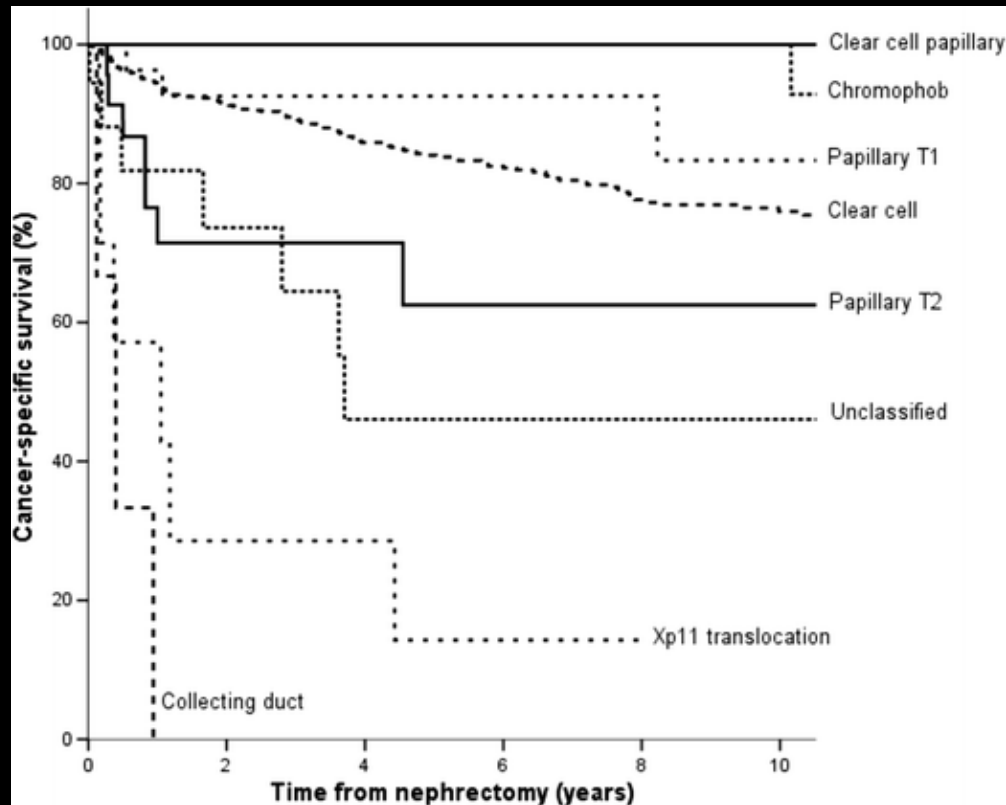
Grade 3: Clearly visible nucleoli at $\times 100$ magnification.

Grade 4 : Extreme nuclear pleomorphism and atypical giant cells



Prognosztikai tényezők

Tumortípus



-Prognosztikai tényezők

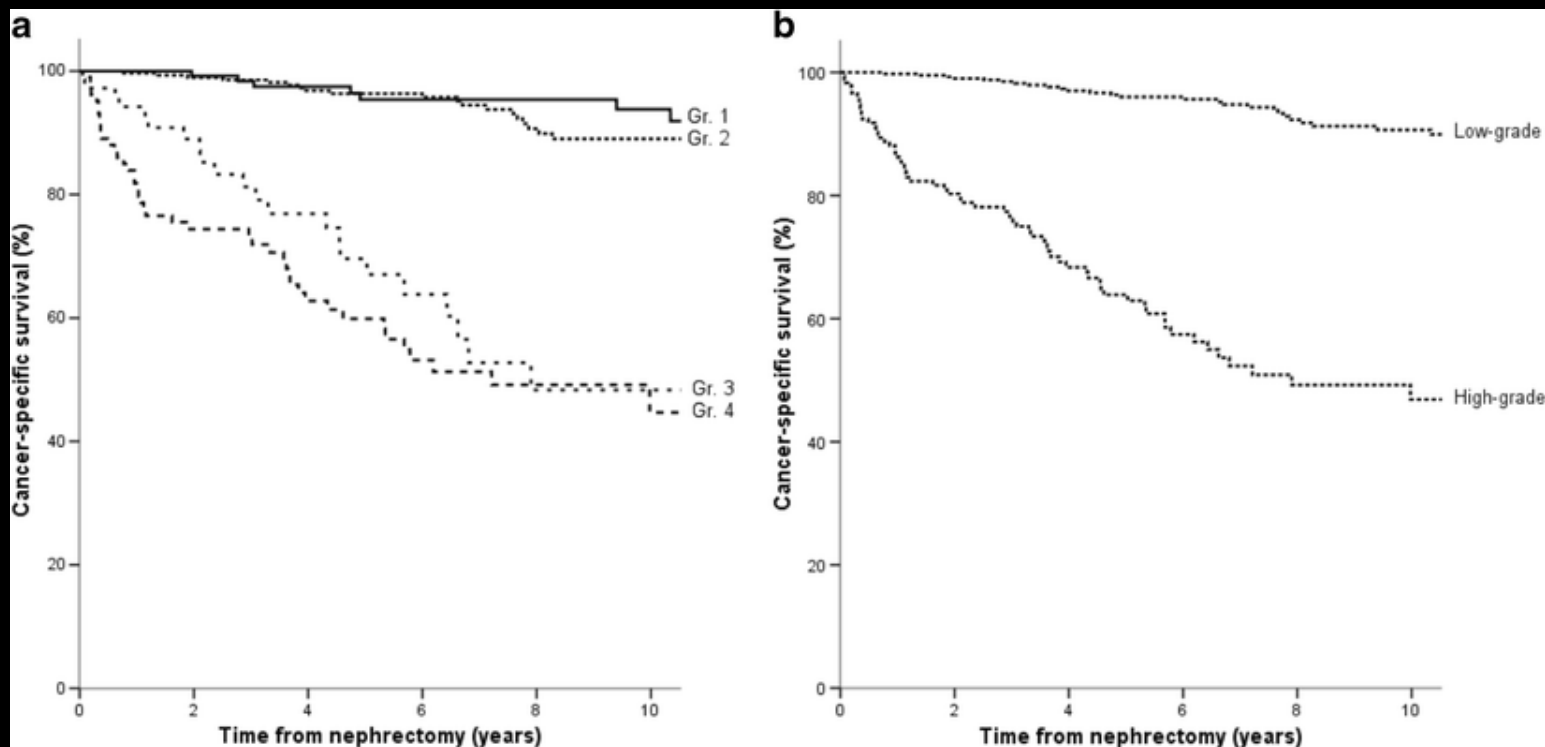
Table 2 Cox regression analysis for cancer-specific survival rates in non-metastatic clear cell RCC

Characteristic	Hazard ratio	CI 95%	<i>p</i> value
Univariate			
ISUP grade	7.50	5.01–11.21	<0.001
TNM stage	2.54	2.04–3.15	<0.001
Surgical margin status	2.95	1.57–5.53	<0.001
Microscopic tumor necrosis	6.74	4.53–10.07	<0.001
Rhabdoid/sarcomatoid change	5.14	3.39–7.78	<0.001
Giant tumor cells	3.93	2.51–6.15	<0.001
Multivariate			
ISUP grade	4.33	2.36–7.95	<0.001
TNM stage	1.86	1.49–2.33	<0.001
Surgical margin status	2.61	1.39–5.2	0.003
Microscopic tumor necrosis	1.69	0.93–3.05	0.081
Rhabdoid/sarcomatoid change	0.96	0.57–1.61	0.896
Giant tumor cells	0.67	0.4–1.13	0.139

Prognosztikai tényezők

Grádus:

Fuhrman grade/ISUP grade



Kezelés

Parciális (pT1 tumorok) vagy radikális nefrektómia (nyílt vagy laparoscopos műtét)

Áttétes esetekben szisztémás kezelés: tirozinkináz-gátlók (sunitinib)
mTOR-gátlók (tacrolimus, everolimus)

A diagnosztika nehézségei -

A radiológus és a patológus kihívása



I: 82.3
Im: 93

DFOV 29.4cm
STND/+

Ex: Jun 21 2010



1.3/

1.2mm 1.375:1/1.2sp

W = 241 L = 51

P 148

ROI 1: max=138 av=97.8 std=18.9 31.5mm2
ROI 2: max=119 av=79.4 std=18.0 31.5mm2
ROI 3: max=52 av=41.2 std=7.8 3.0mm2



P: 34.8

DFOV 29.0cm
STND/+

43.2 mm (2D)

Right renal mass

Ex: Jun 2

1
2
8

2.1/Average

1.2mm 1.375:1/1.2sp

W = 170 L = 74

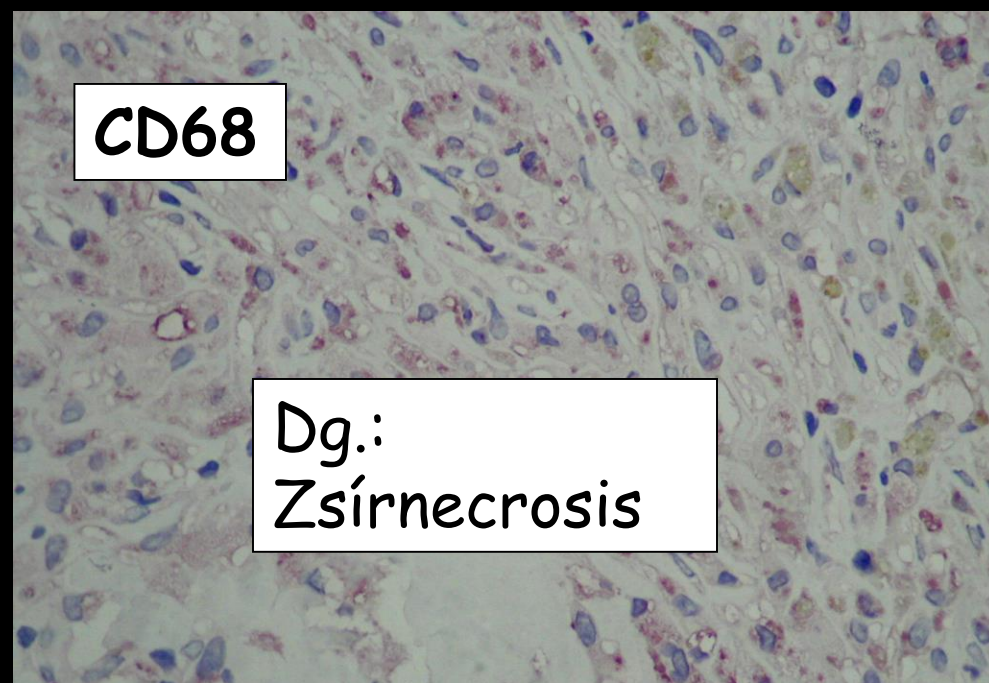
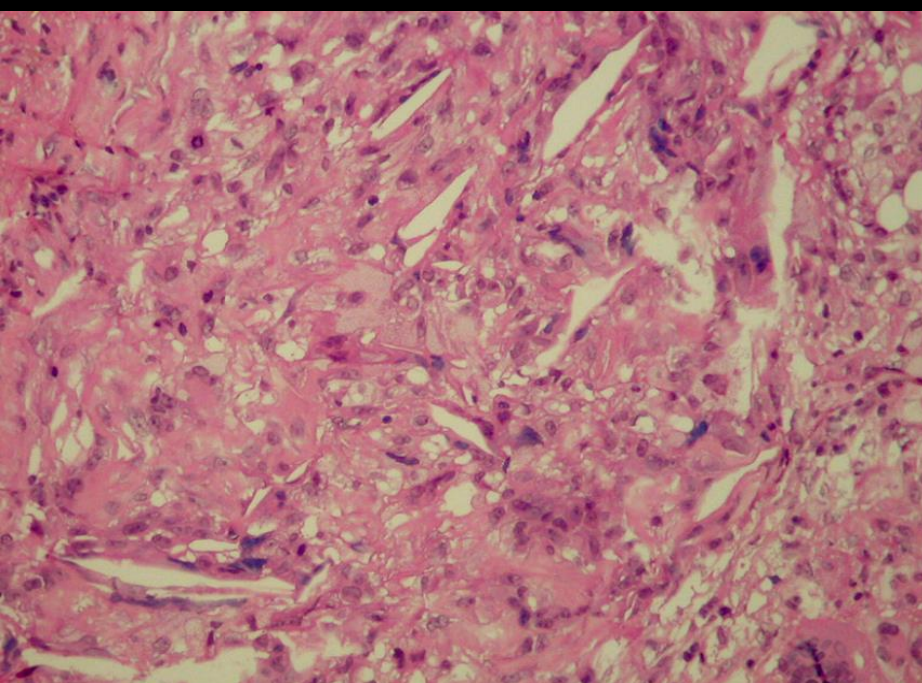
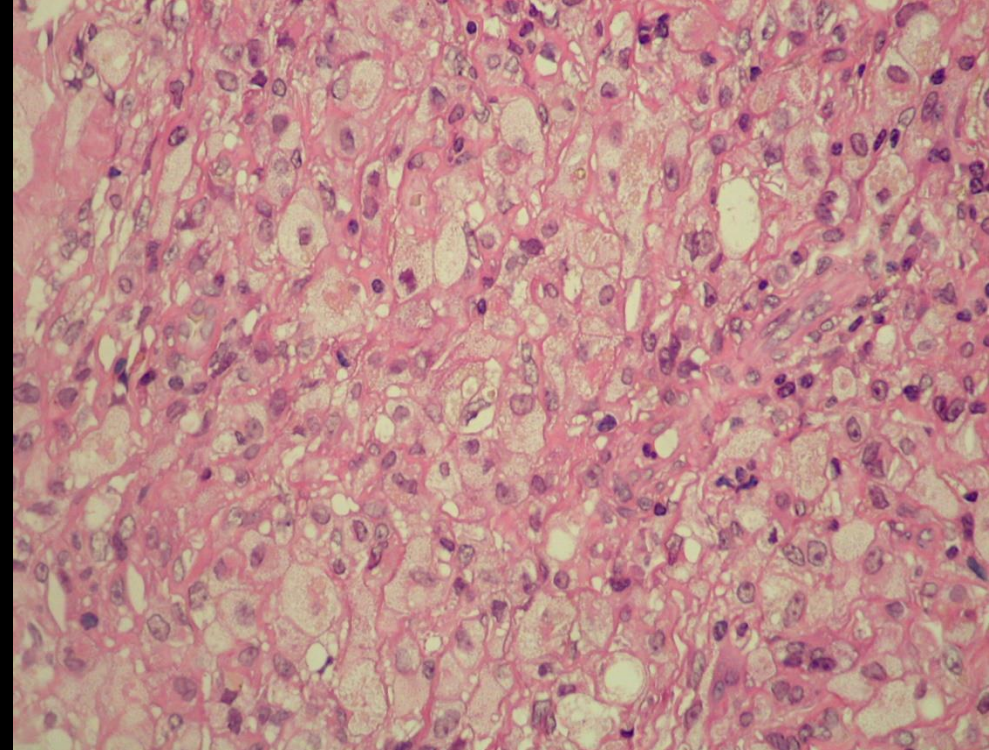
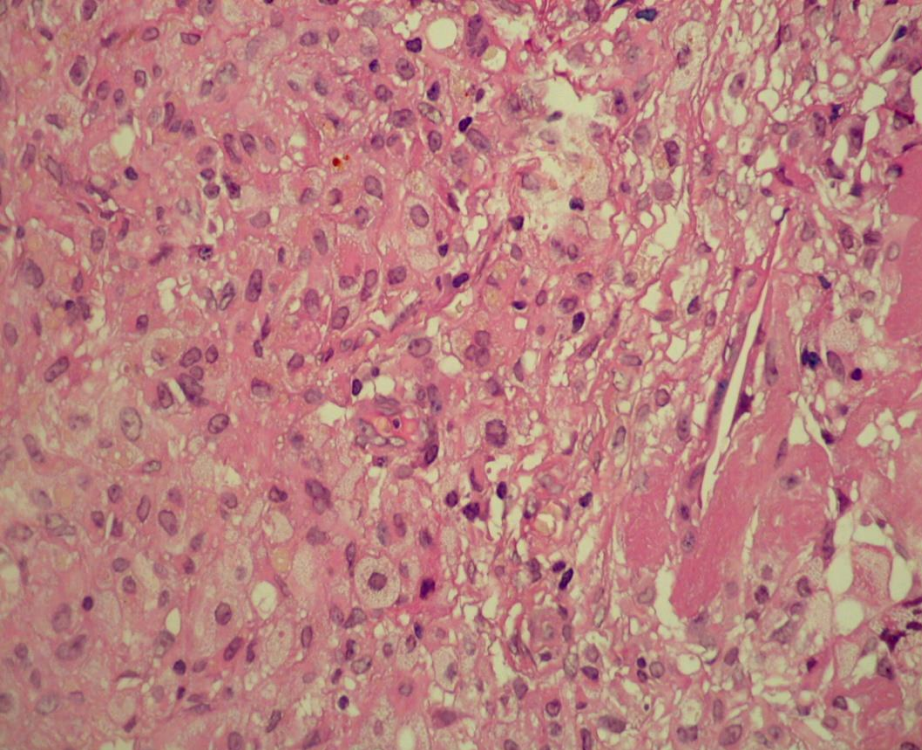
I 227

47 éves nő

3 éve RCC miatt nephrectomia

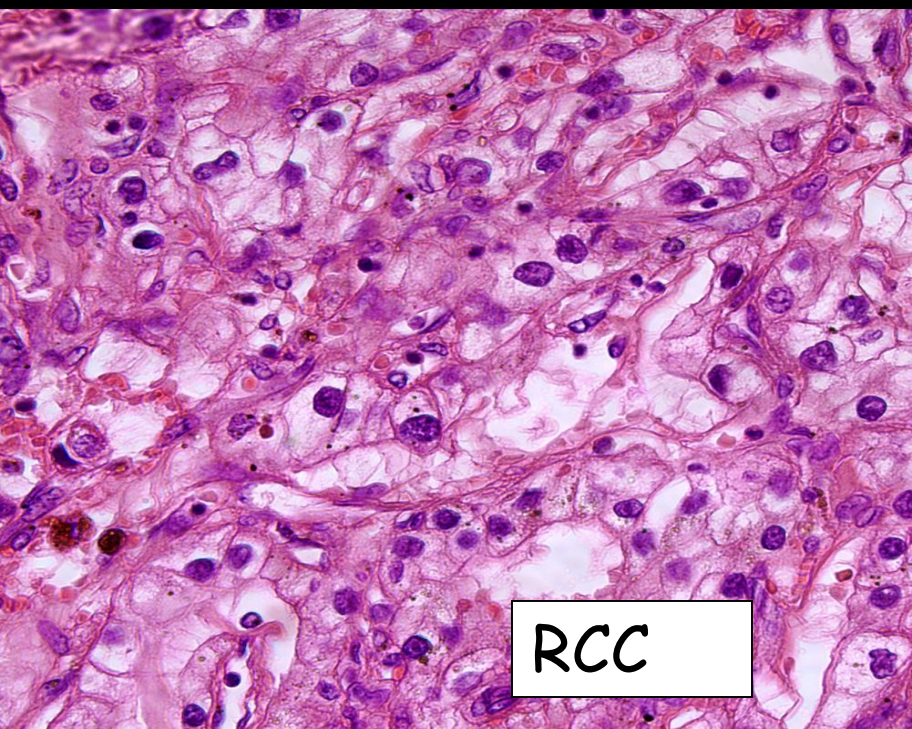
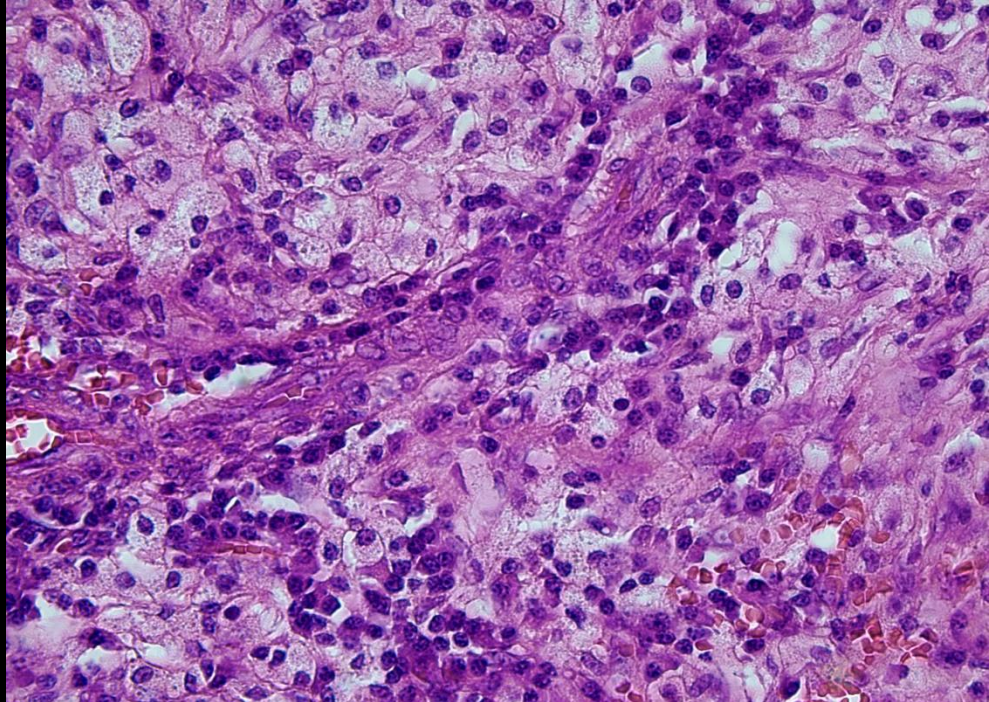
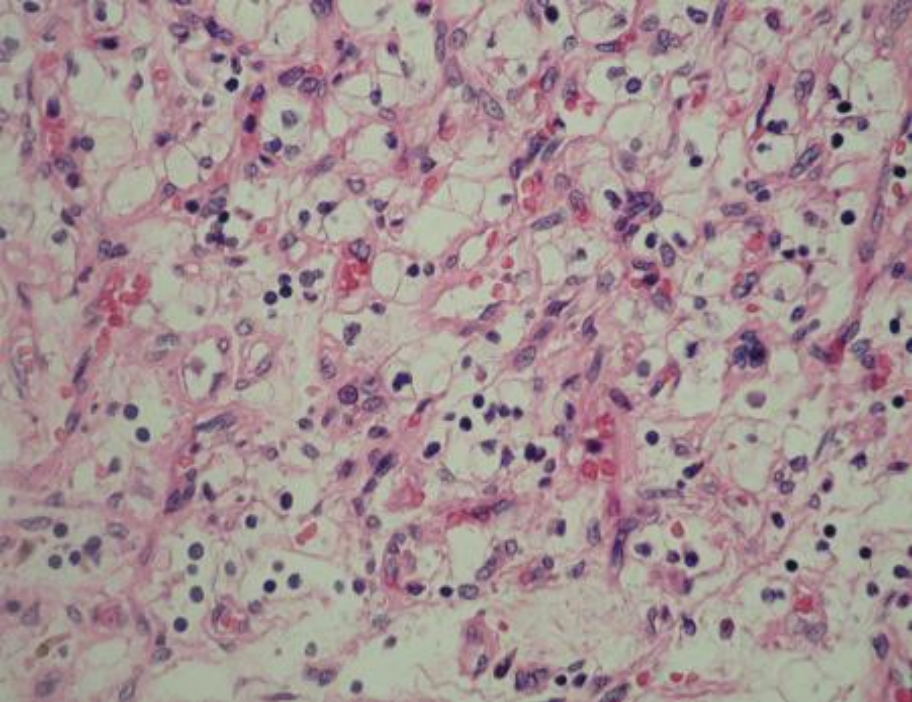
Csepleszben, ill. retroperitonealisan
multiplex
echoszegény elváltozás

Met.?

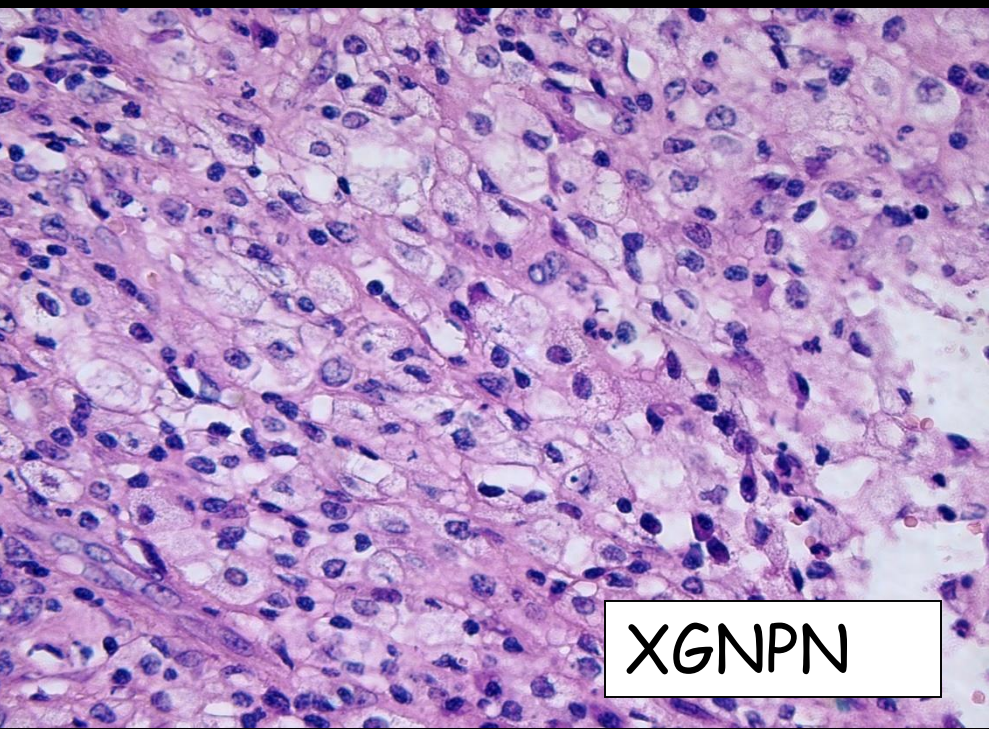


CD68

Dg.:
Zsír necrosis



RCC

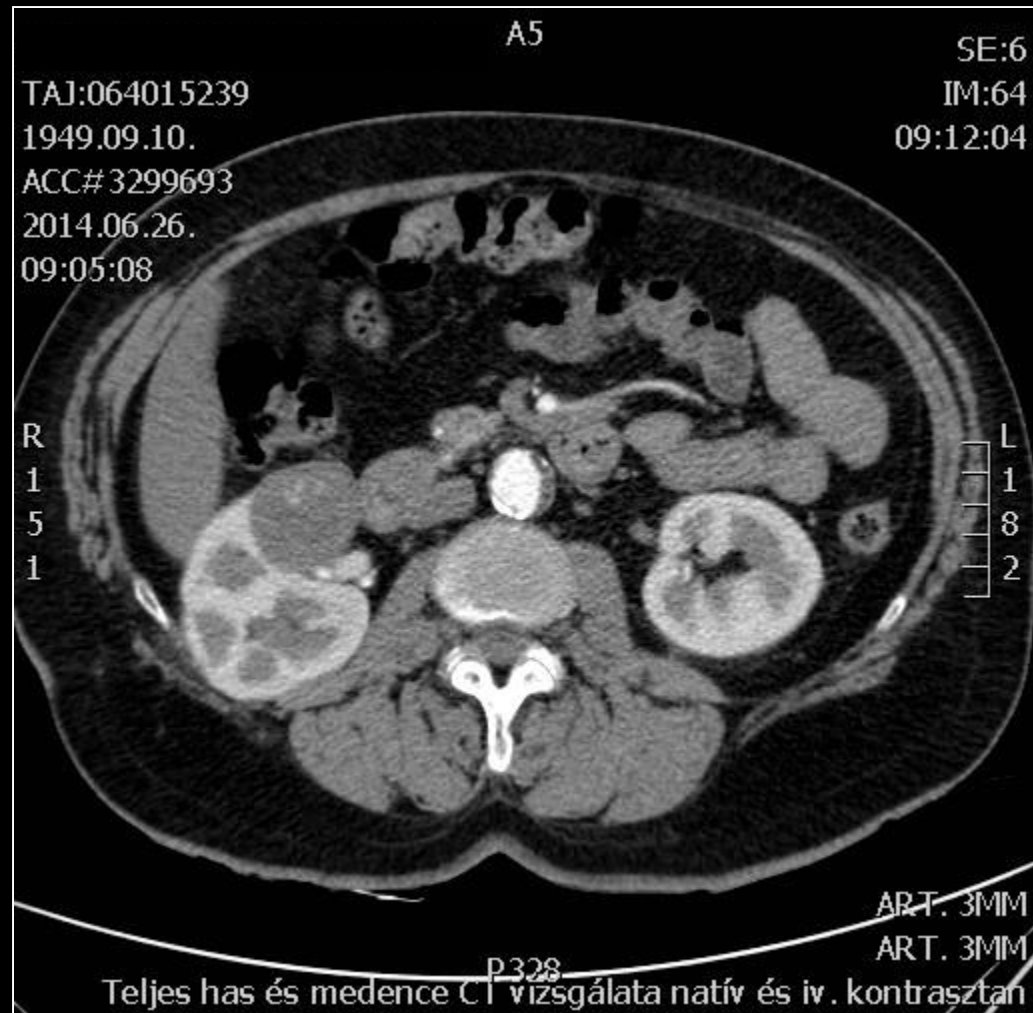


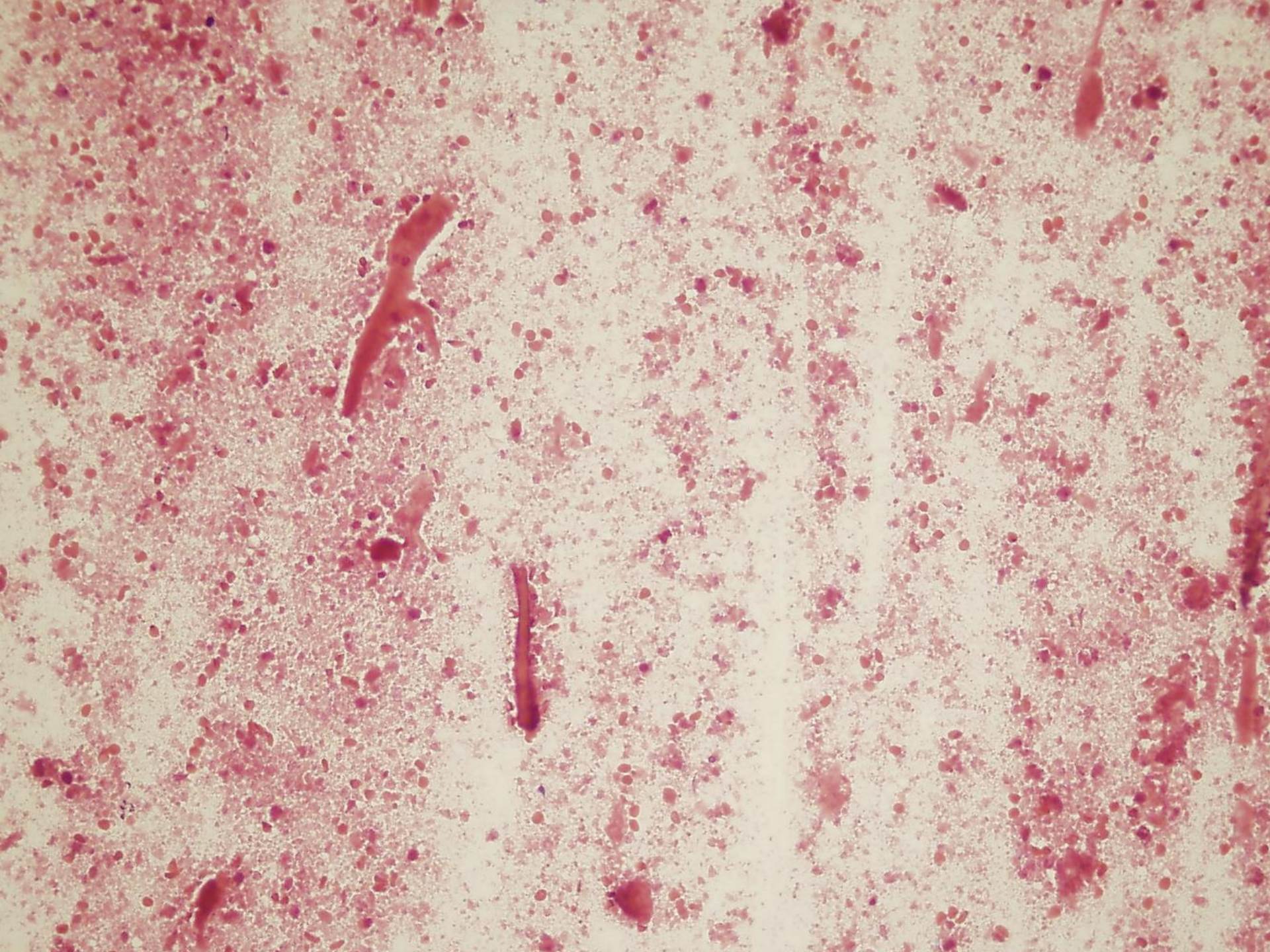
XGNPN

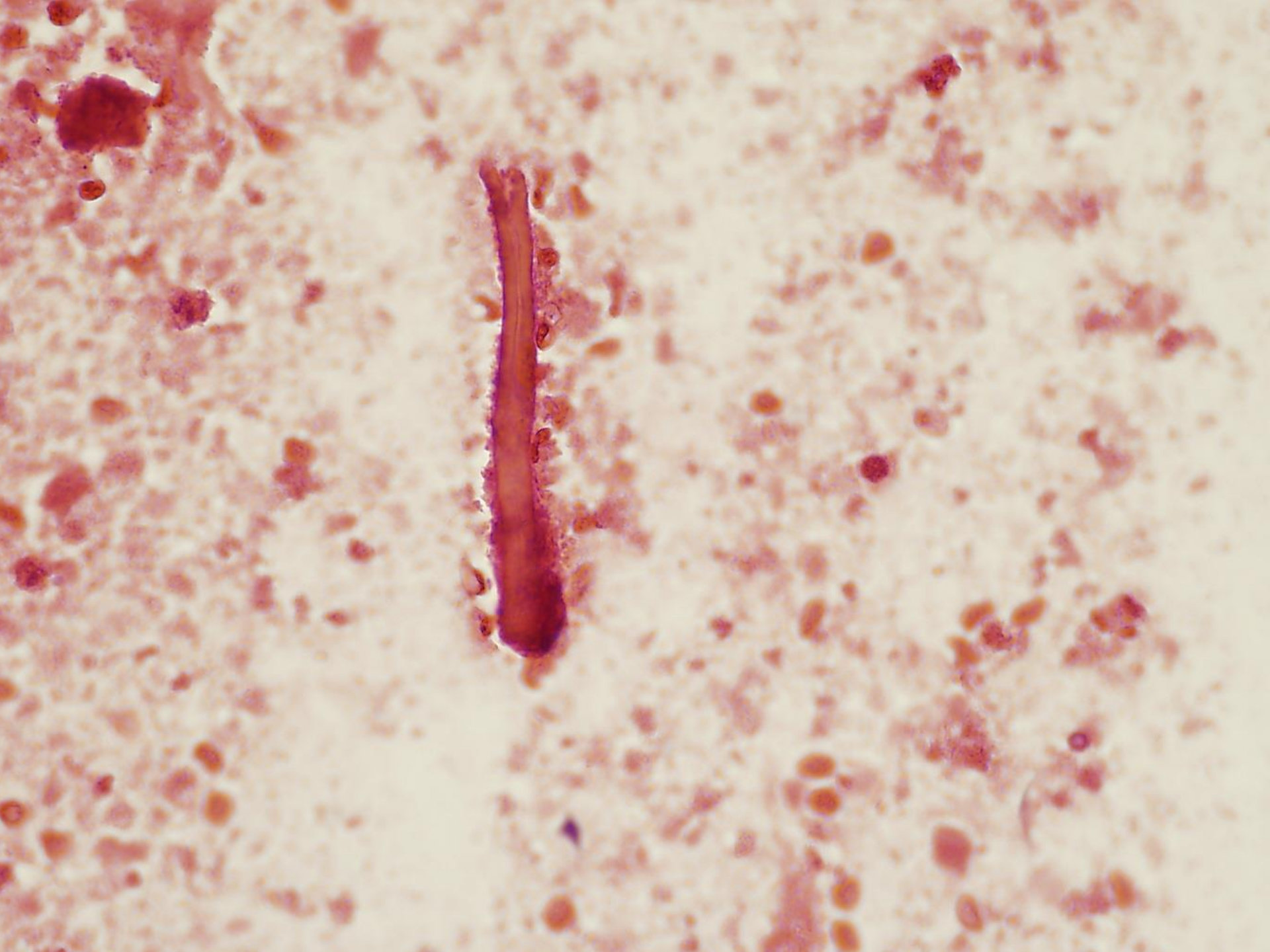
65 éves nő

Kb. 20 éve vese pólus
resectio

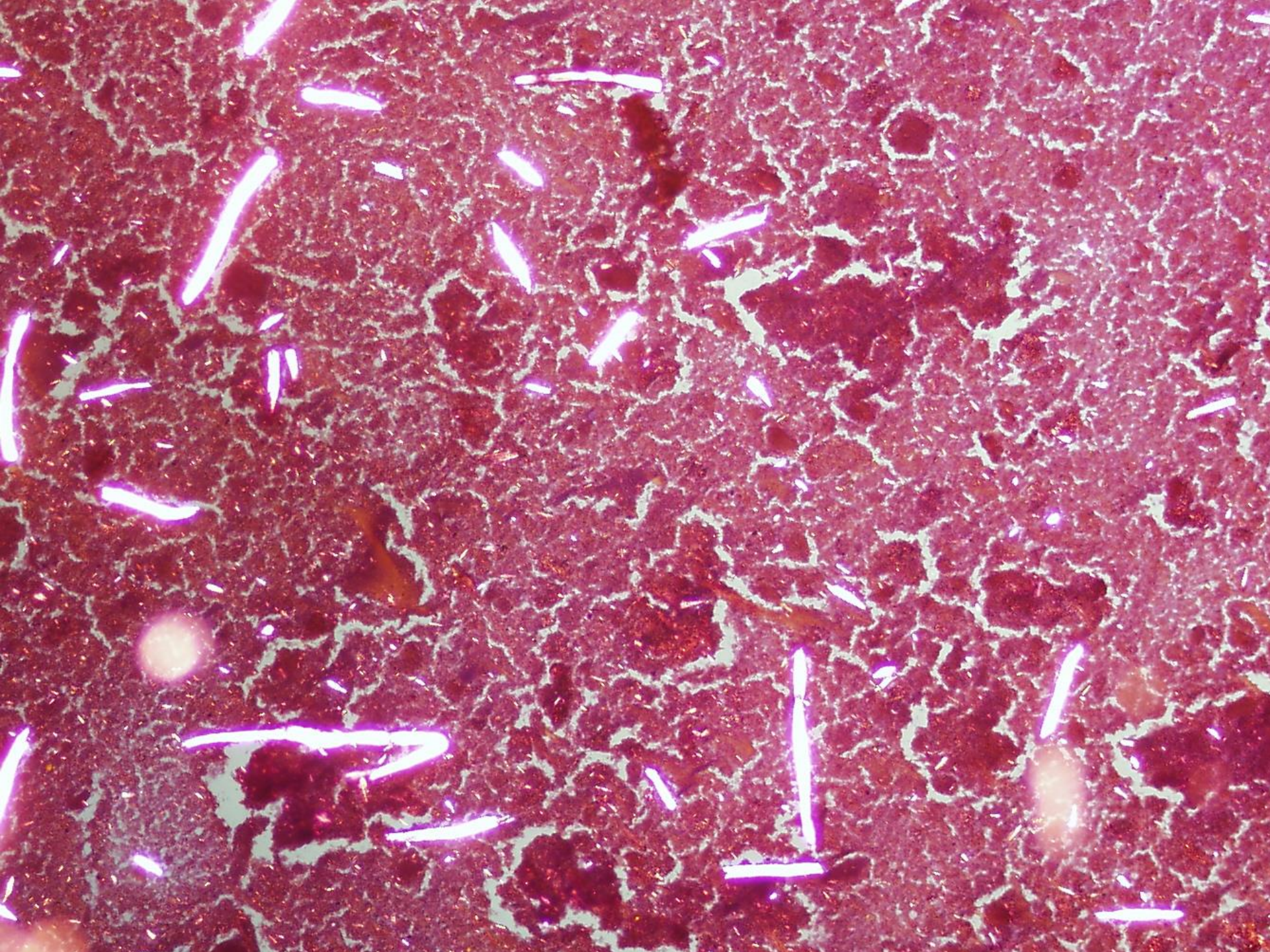
Kontroll vizsgálatok
során CT-vel veséből
előemelkedő 3 cm-
es tumort találtak









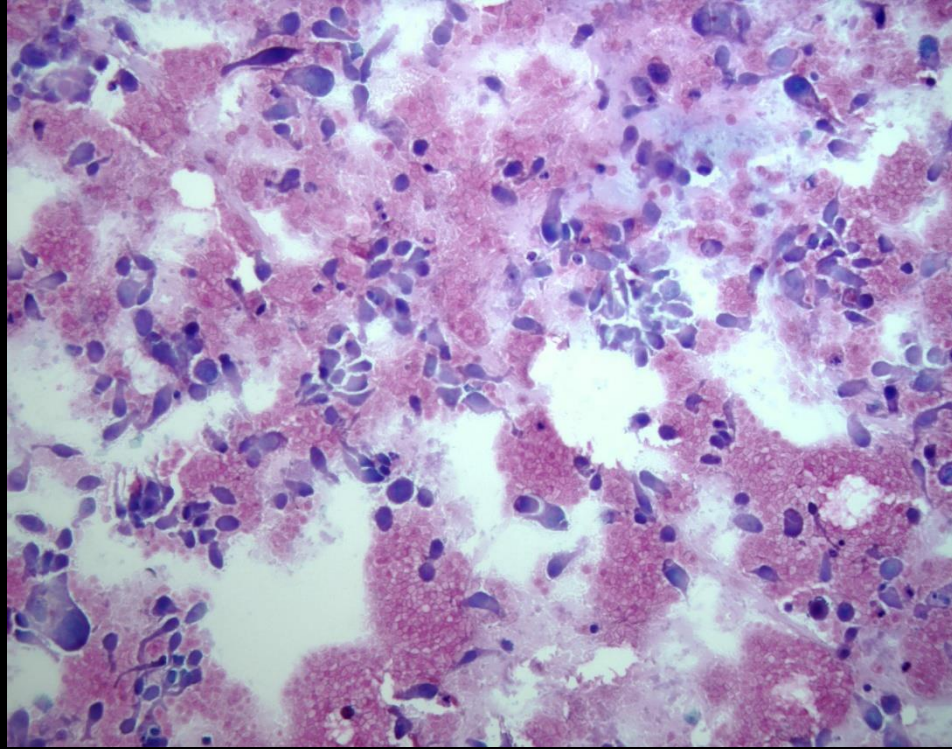
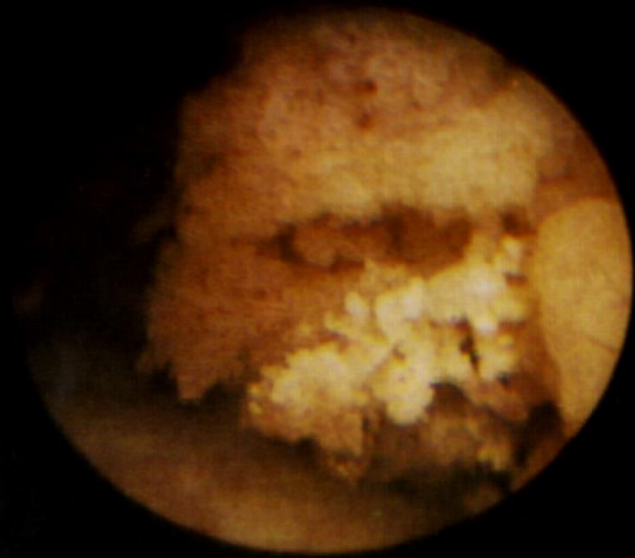


63 éves nő

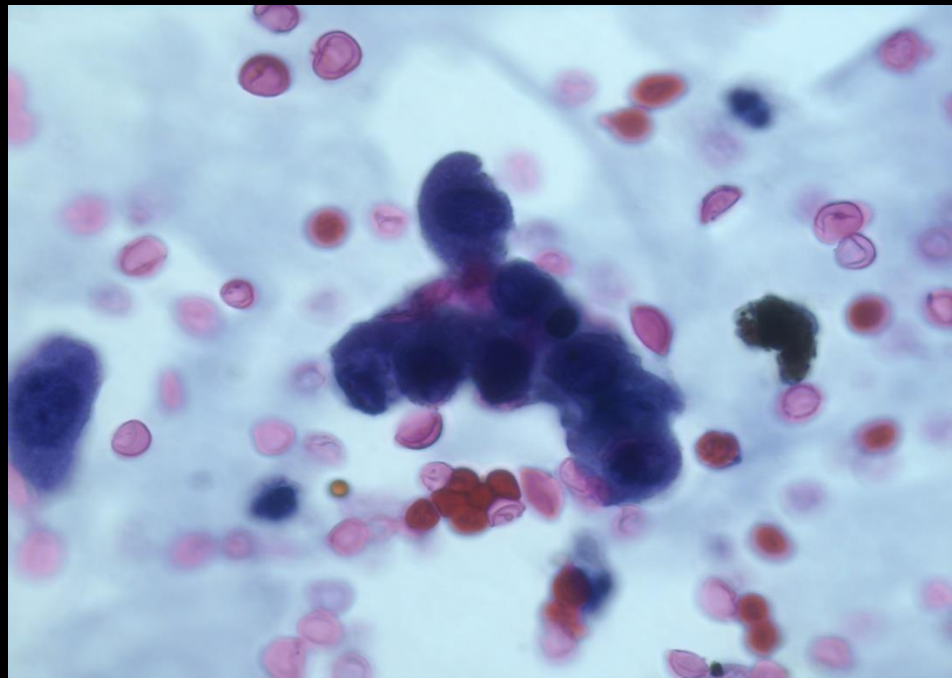
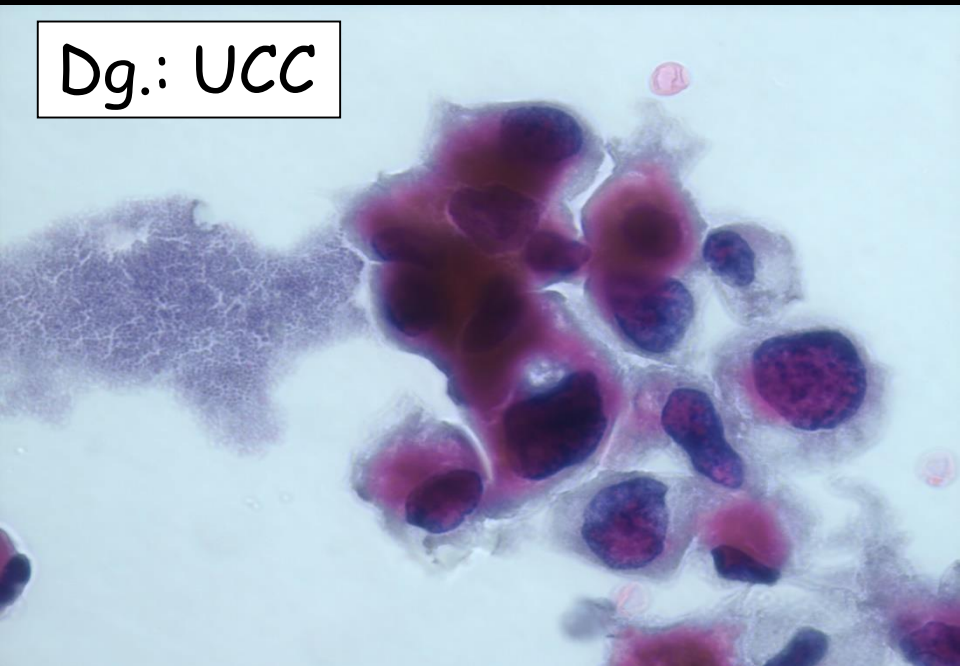
Dohányzik

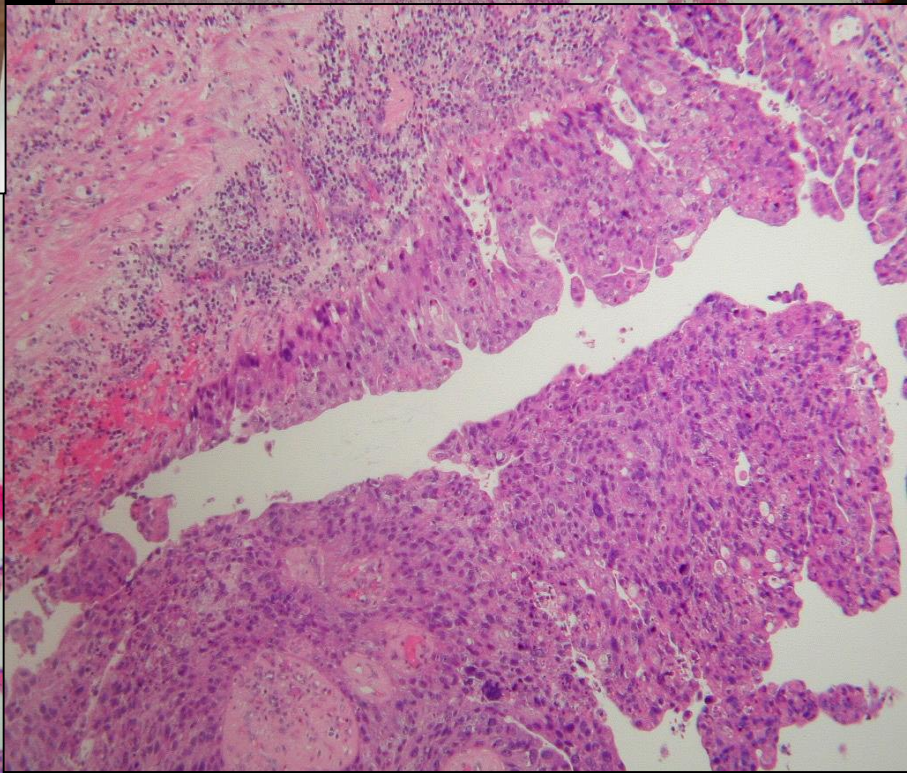
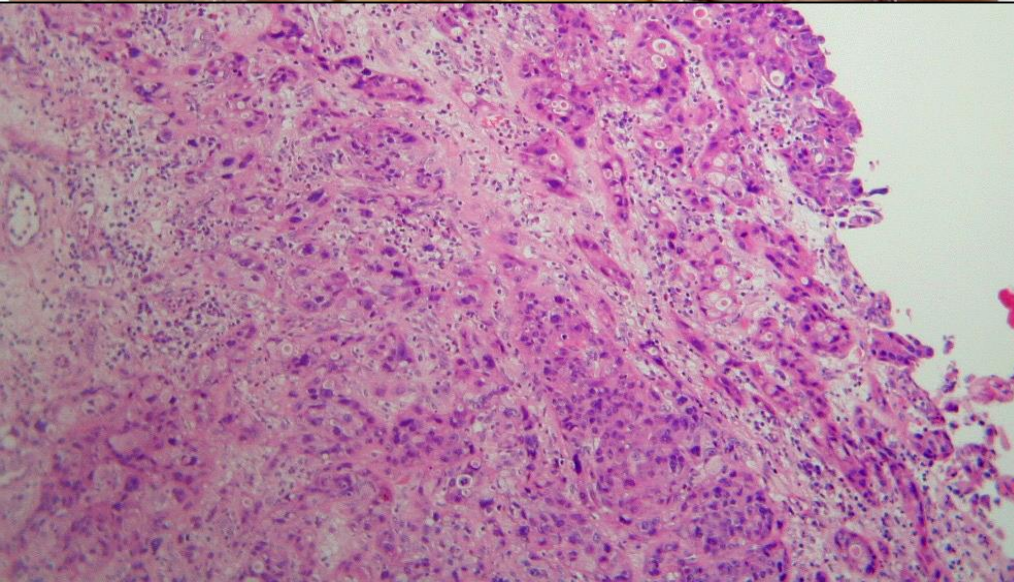
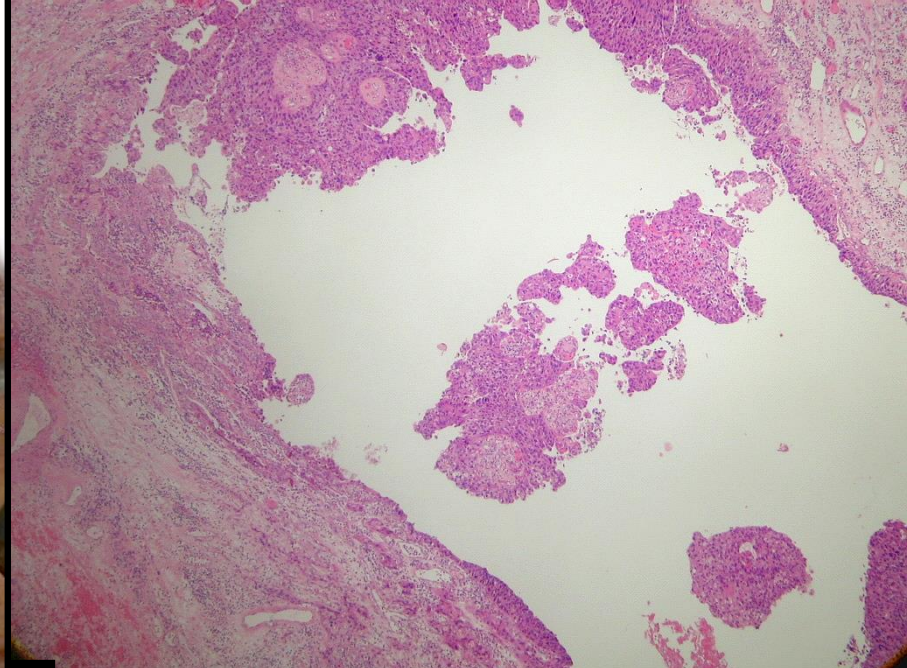
Deréktáji fájdalom, hematuria

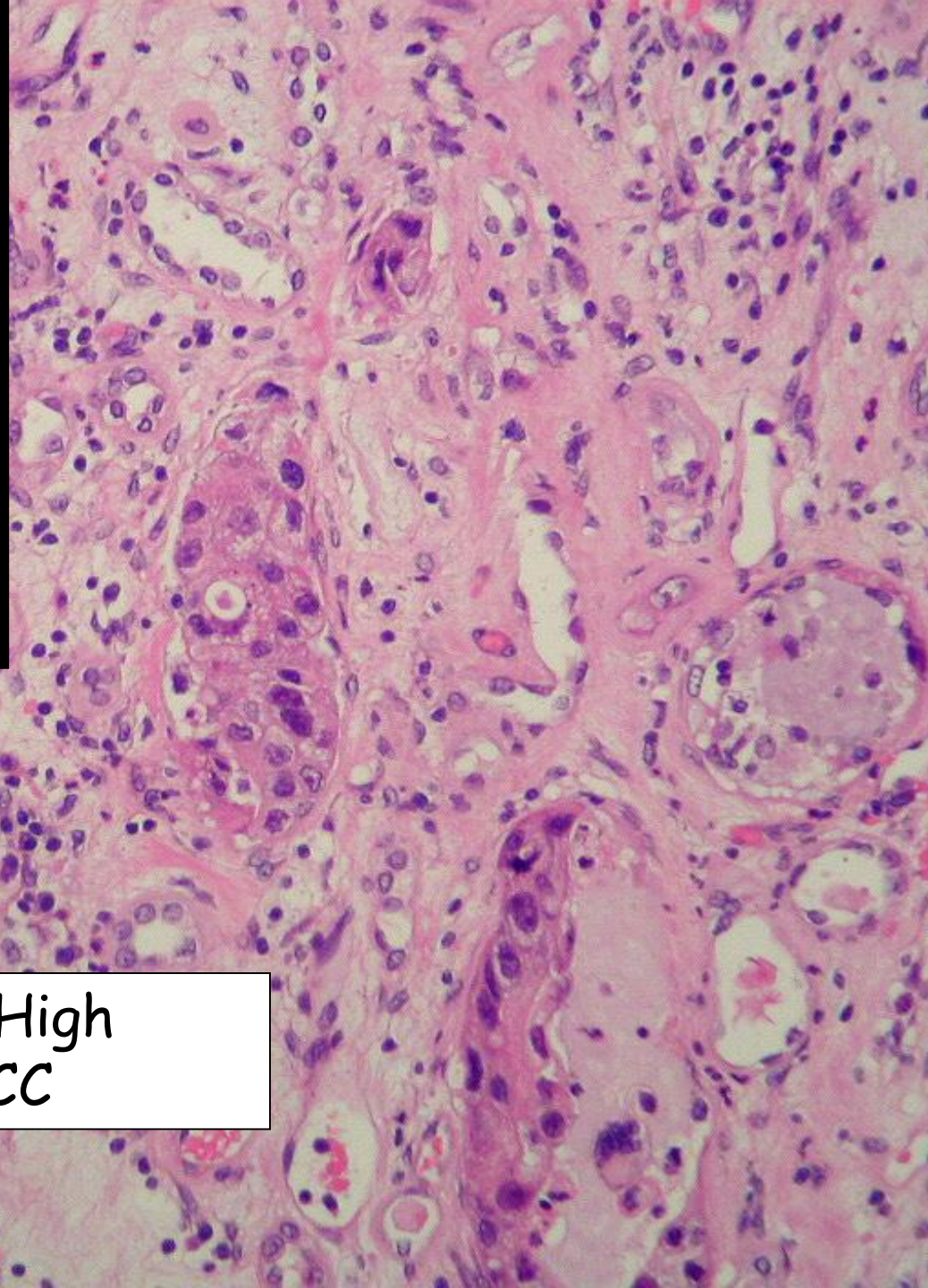
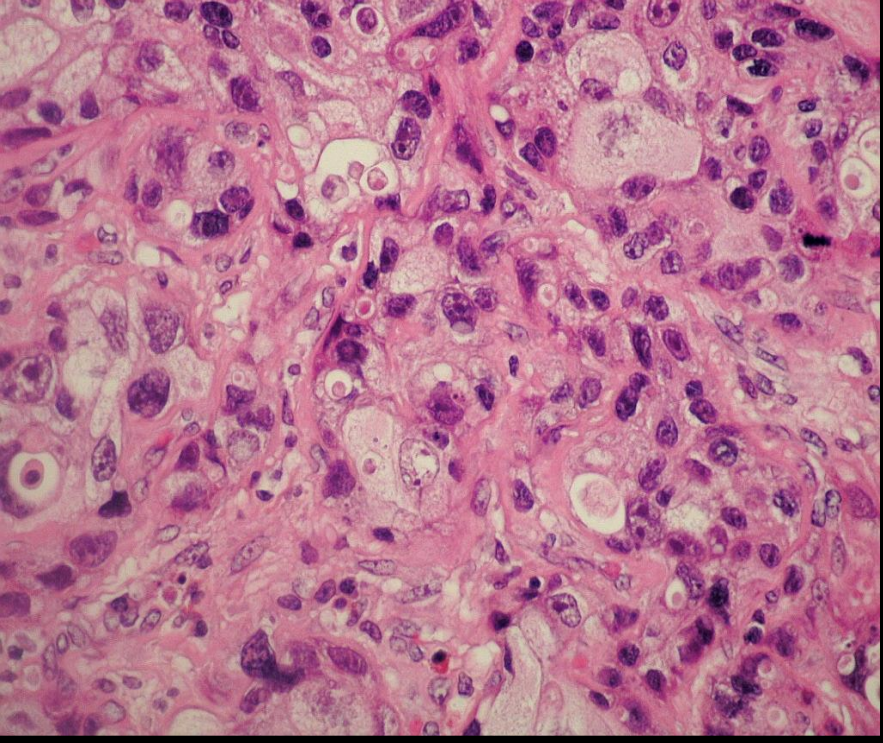
Ureteroscoppal papilláris tumor látszik



Dg.: UCC







Dg.: Tu., High
grade UCC

Urotheliális (Transitionális sejtes) carcinoma- (UCC/TCC) -tünetek

Hematuria

Hydronephrosis

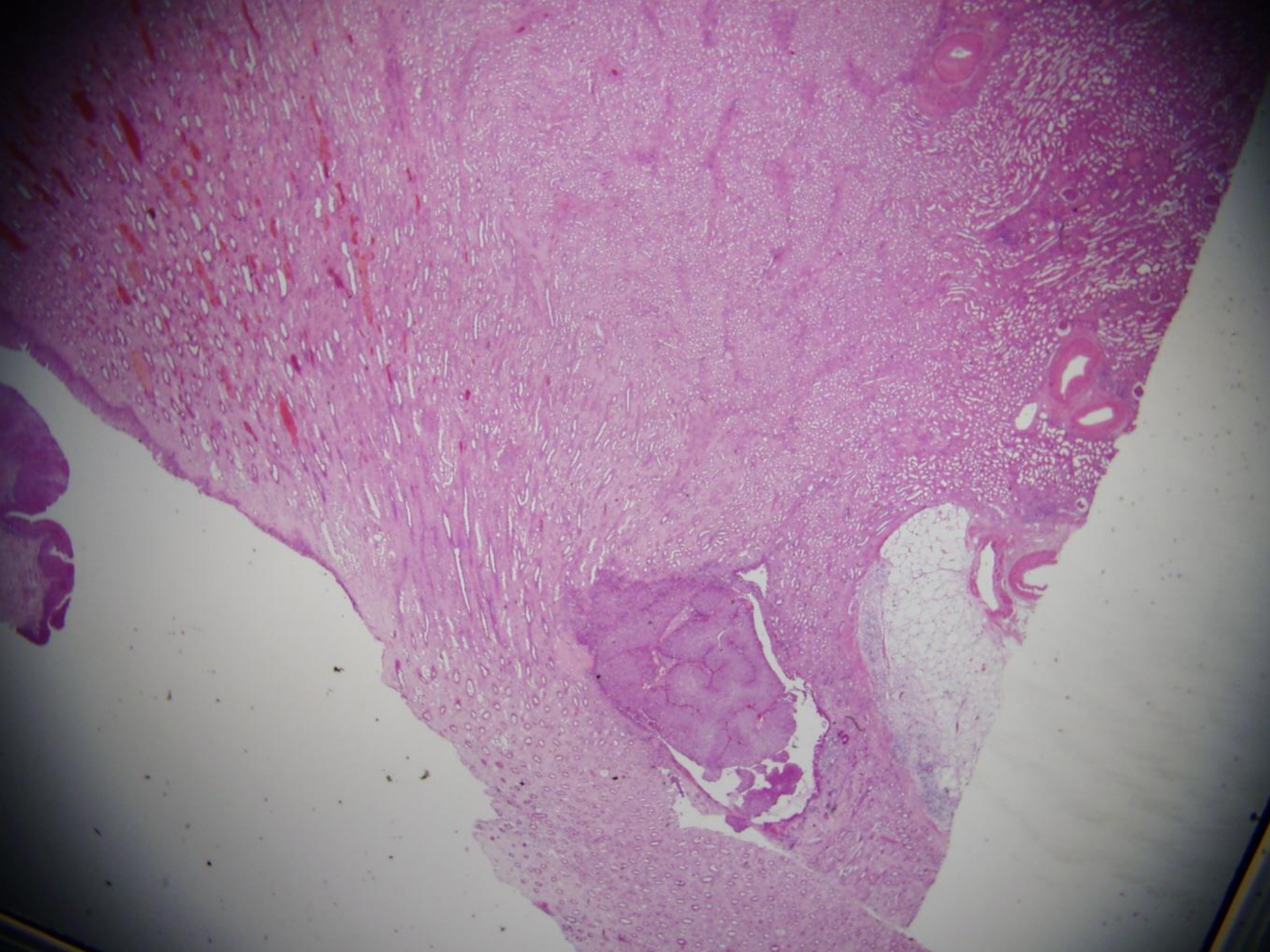
Fájdalom

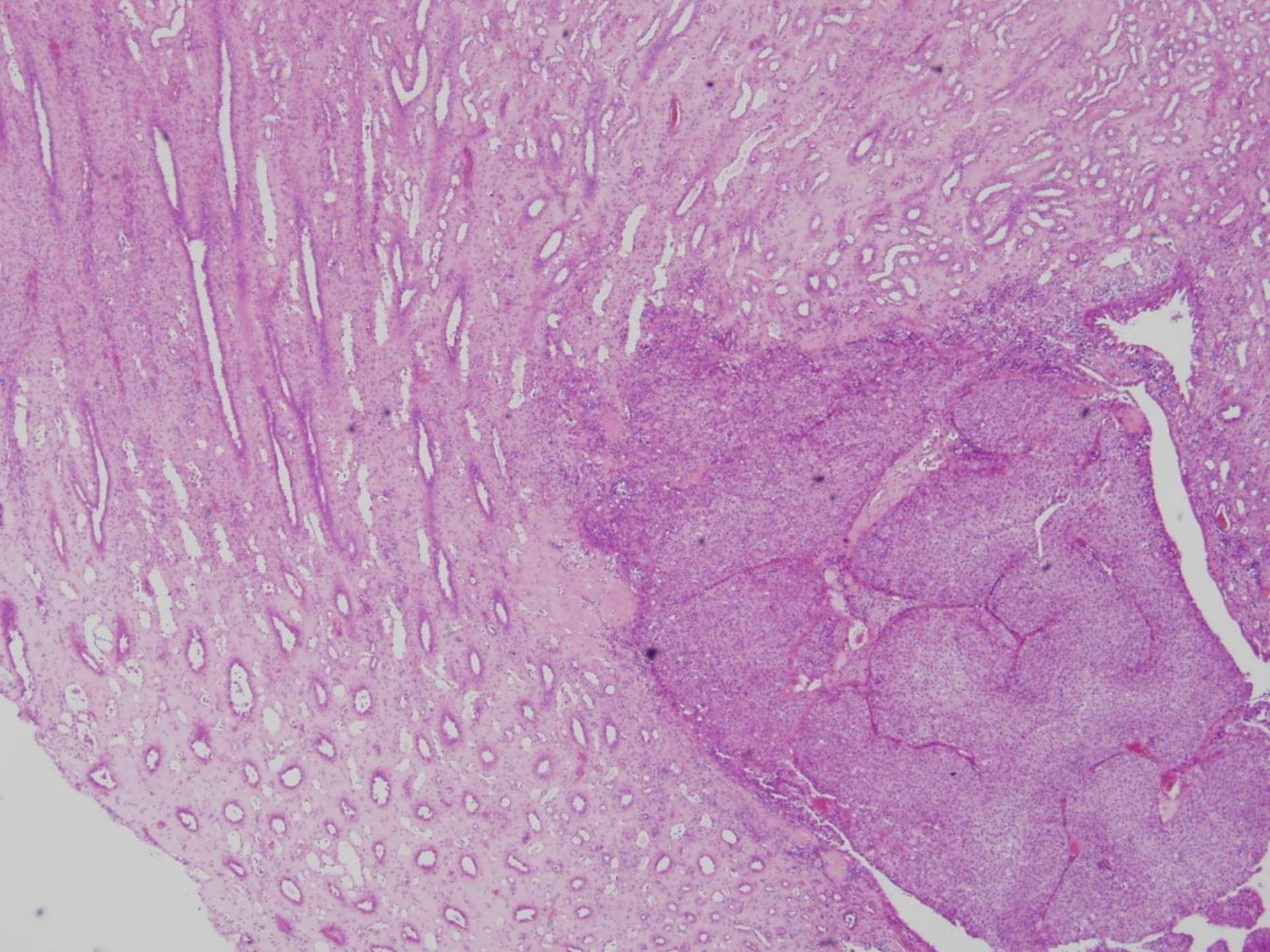
(Chr. aberrációk: 9 monoszómia, 9p,9q,
17p, 13q, 11p, 14q del.)

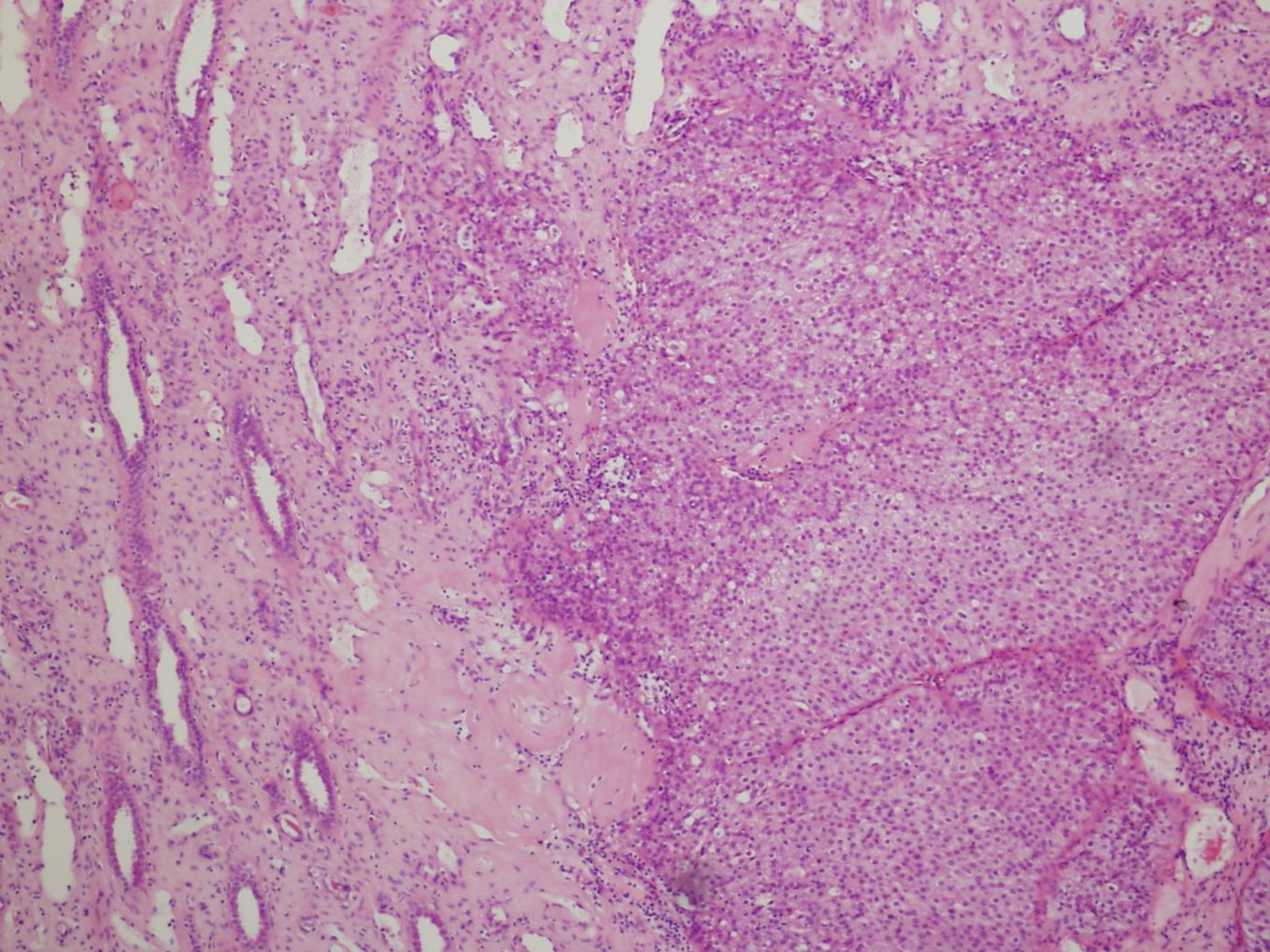
Kb. 60 éves férfi

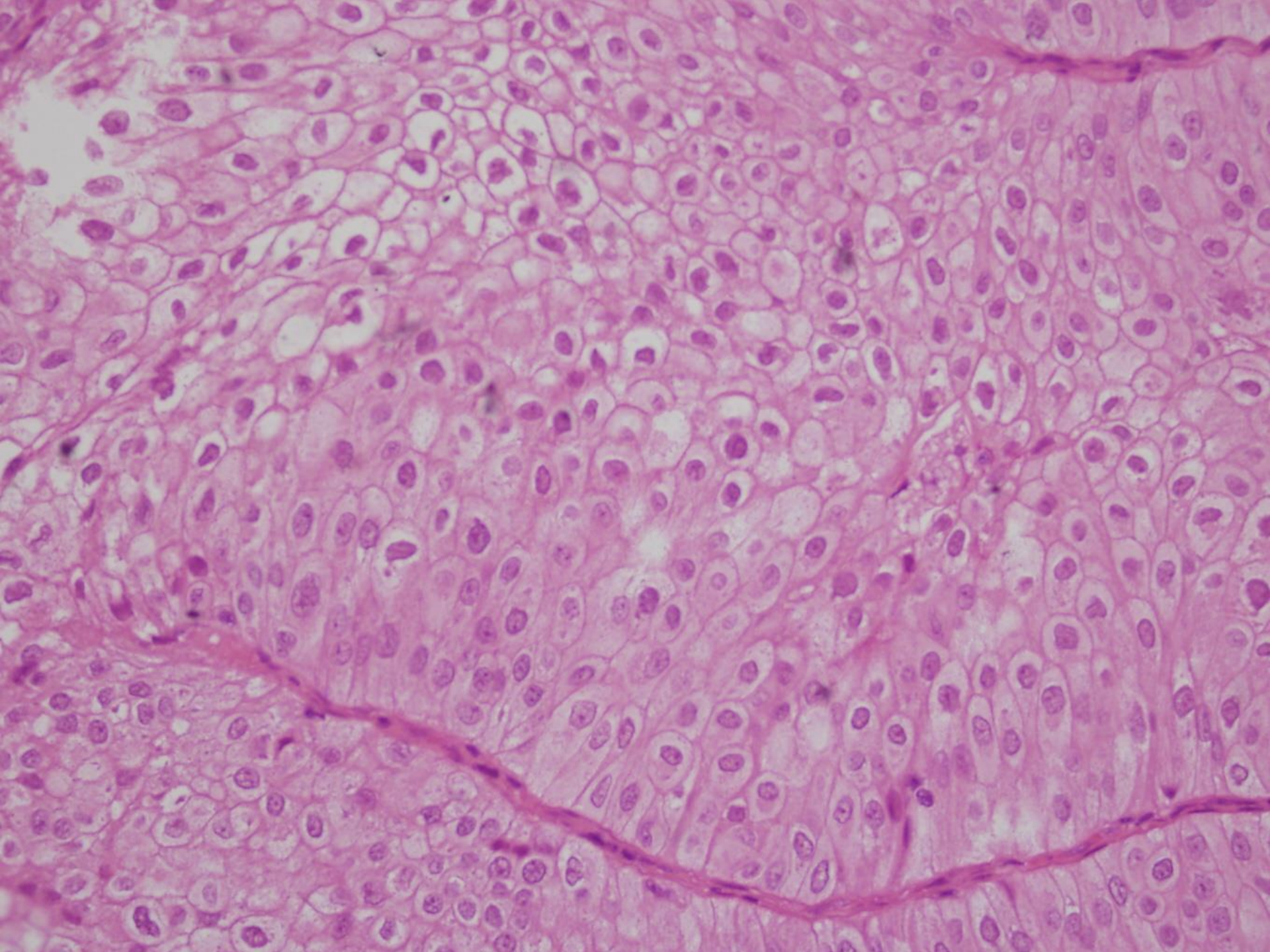
Anaemia igen súlyos, 6 éve
időről időre jelentkező
haematuria miatt végzett
urológiai vizsgálatok













Köszönetnyilvánítás

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