GUONE
GRUPPO URO-ONCOLOGICO del NORD EST

CONGRESSO ANNUALE GUONE

"LA QUALITÀ DI VITA IN URO-ONCOLOGIA: I PAZIENTI AL CENTRO"

18-19 MAGGIO 2023

UDINE
Sala Ajace, Palazzo d'Aronco del Comune di Udine

WWW.GUONE.ORG

II SESSIONE

Moderatori: *Alessandro Antonelli, Paola Ermacora, Rossano Girometti*

17.00 • Può il patologo contribuire a migliorare la qualità di vita del paziente uro-oncologico?
Matteo Brunelli

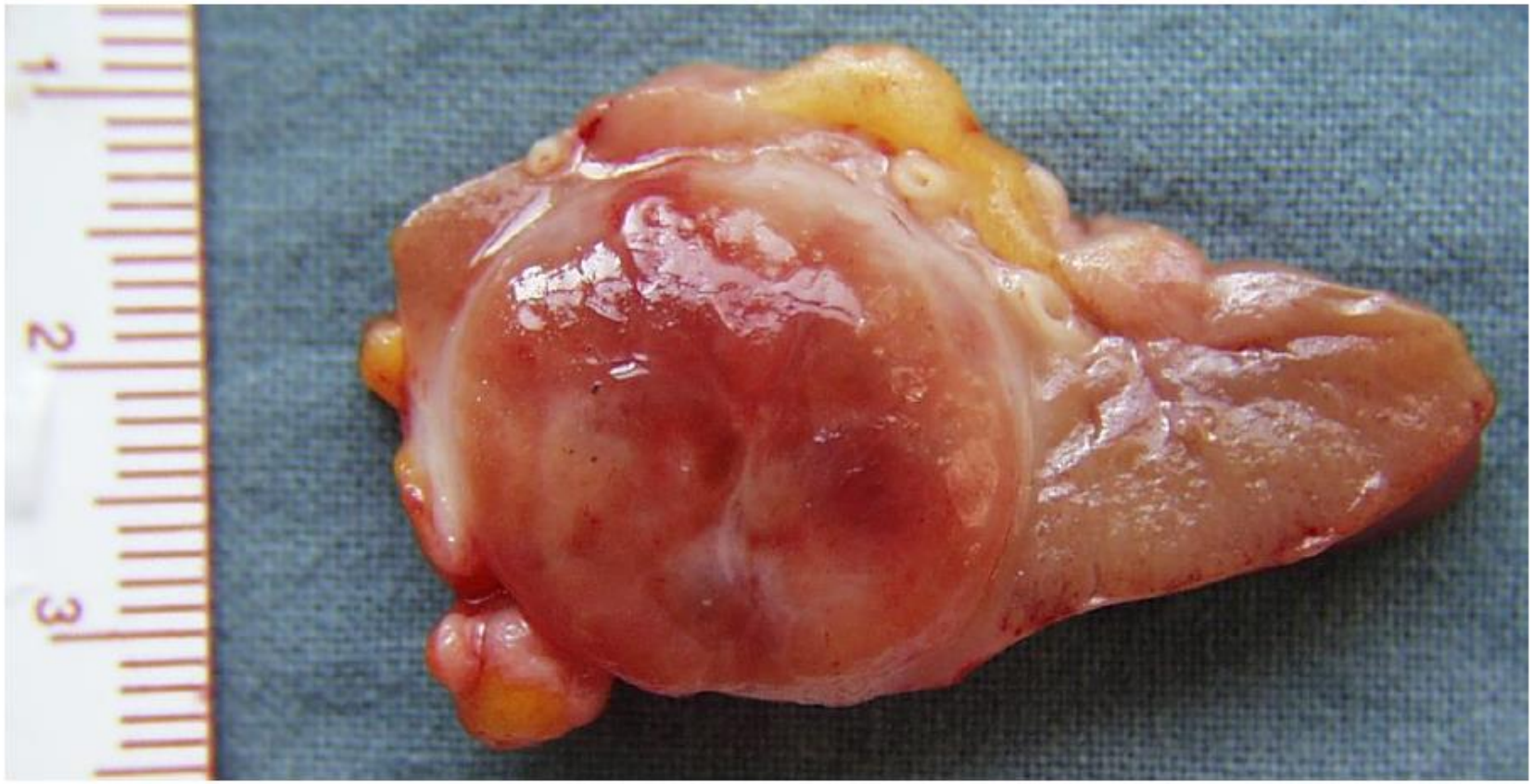
new favourable biological entities

new actions in new setting

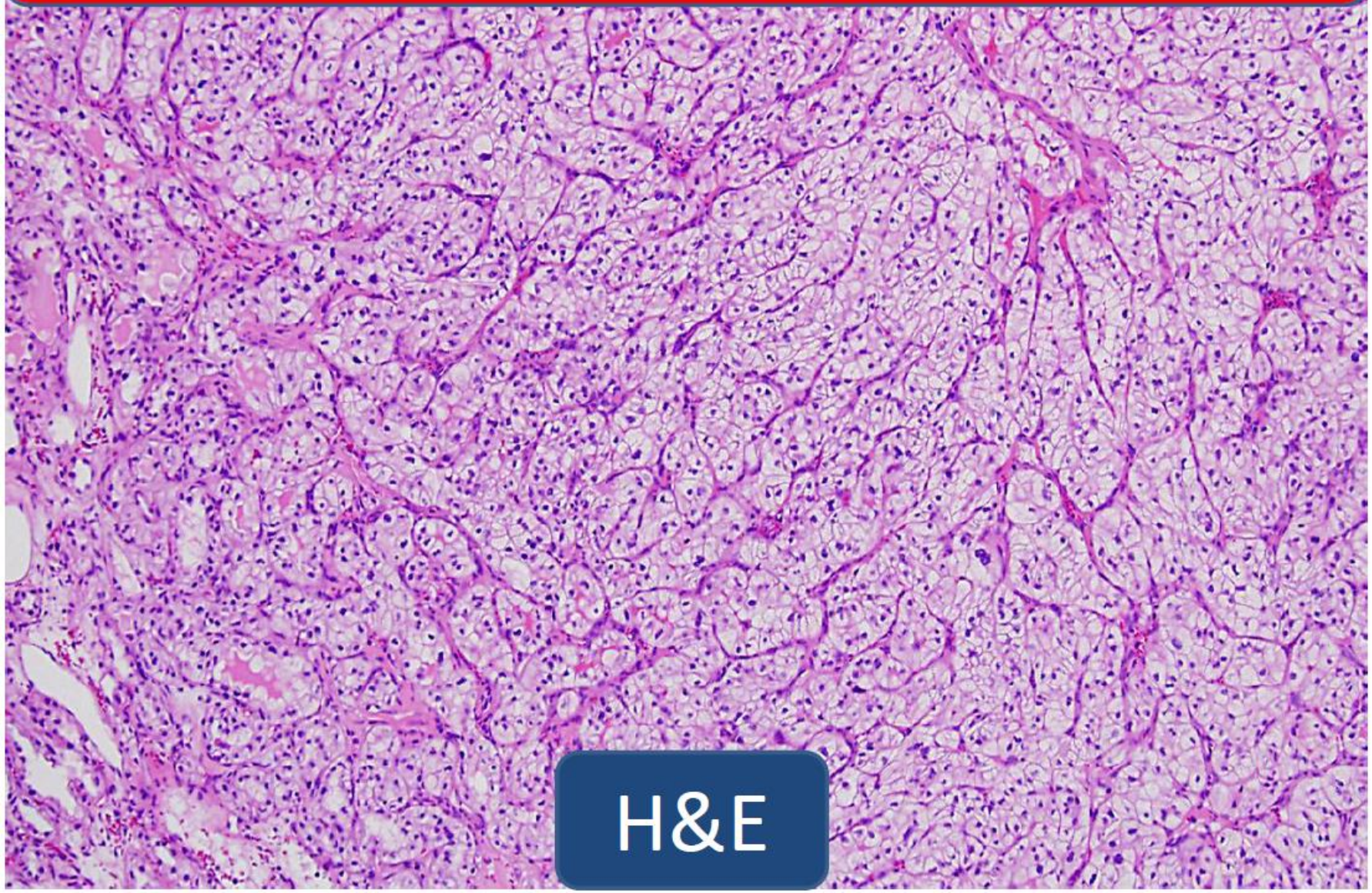
communication

benign tumor or carcinoma
renal adenoma

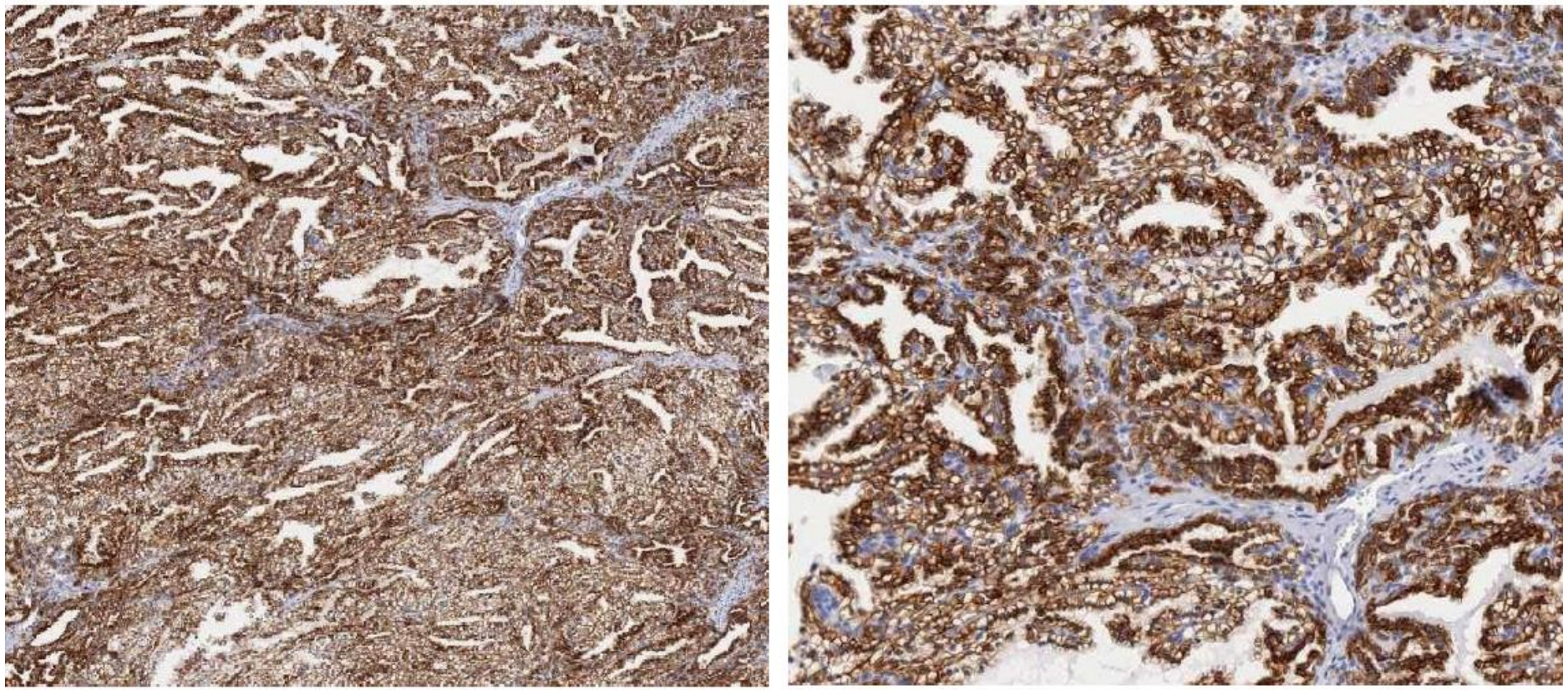
GROSS EXAMINATION



Clear cell renal cell carcinoma

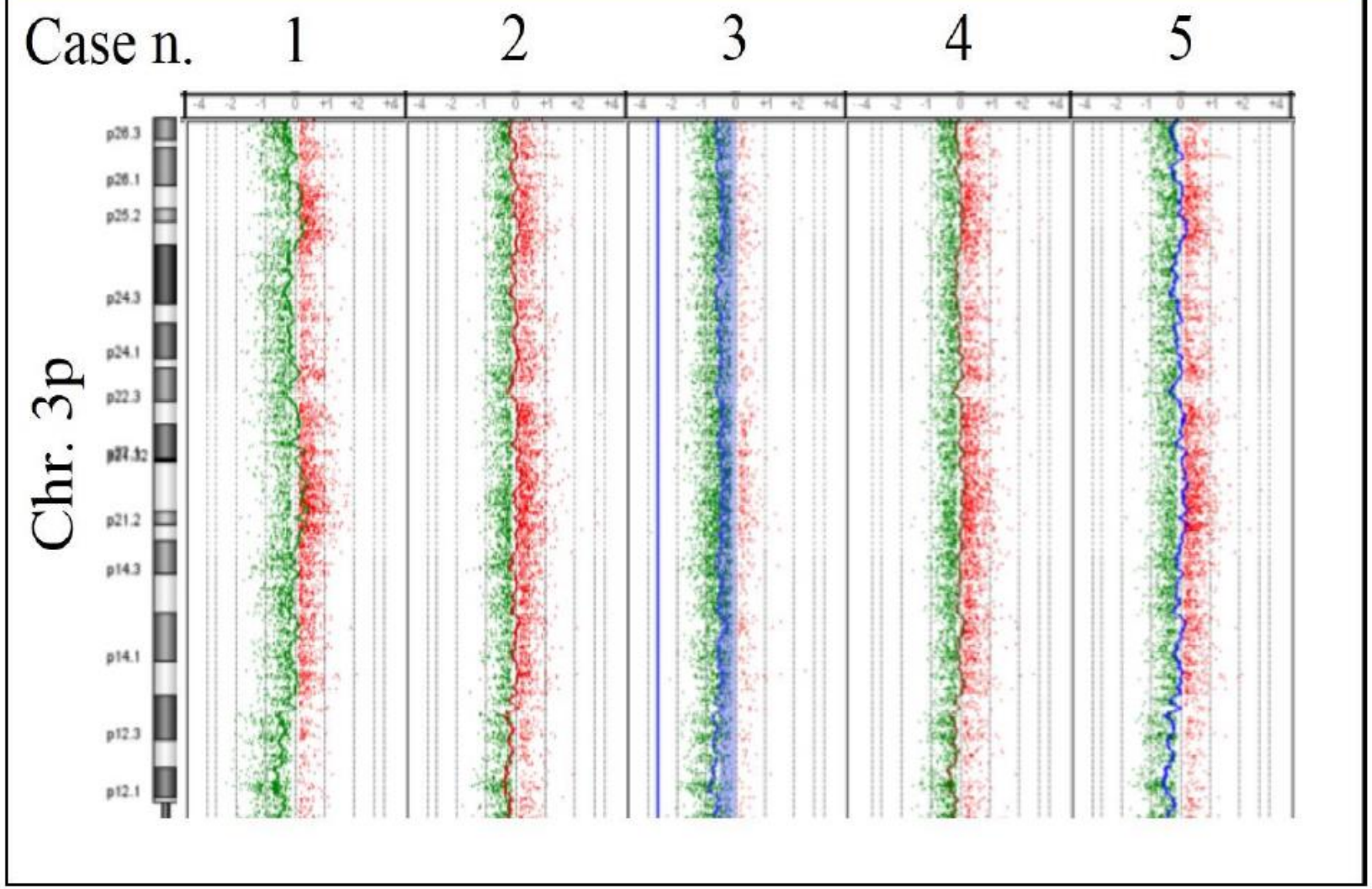


Immunoprofiling



CK7

aCGH


Case n.
1
2
3
4
5
Chr. 3p
p26.3
p26.1
p25.2
p24.3
p24.1
p22.3
p21.2
p14.3
p14.1
p12.3
p12.1

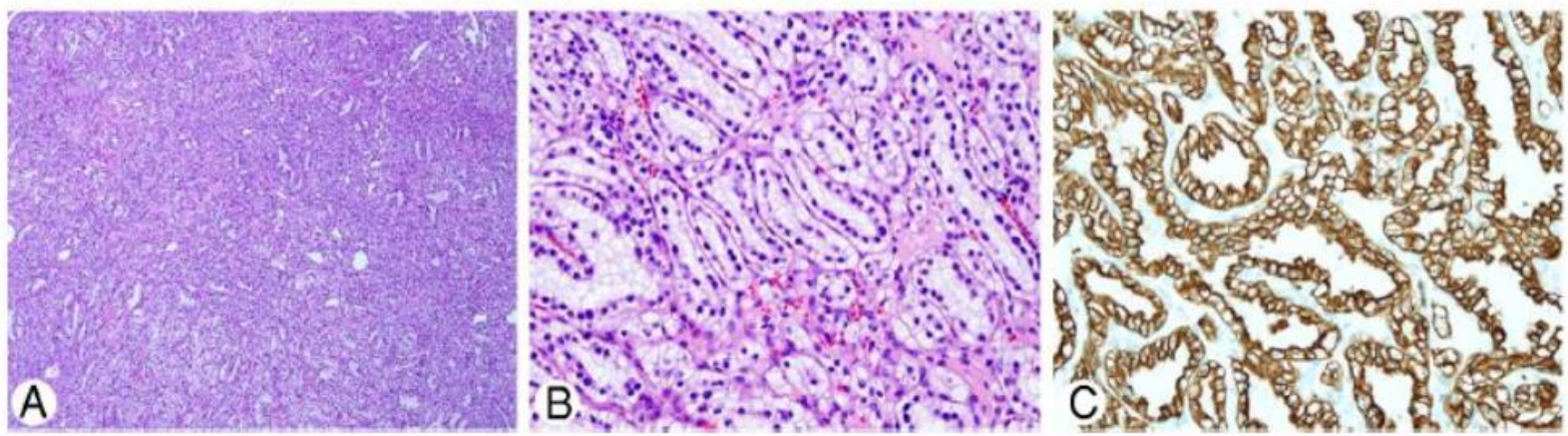
Human Pathology (2014) 45, 59–64

4° most common type of renal cancer

Original contribution

Clear cell papillary renal cell carcinoma is the fourth most common histologic type of renal cell carcinoma in 290 consecutive nephrectomies for renal cell carcinoma ☆

Haijun Zhou MD, PhD [a,b], Shaojiang Zheng MD, PhD [c], Luan D. Truong MD [a,b], Jae Y. Ro MD, PhD [a,b], Alberto G. Ayala MD [a,b], Steven S. Shen MD, PhD [a,b,*]



WHO 2016

All without evidence of disease

Prognosis and predictive factors

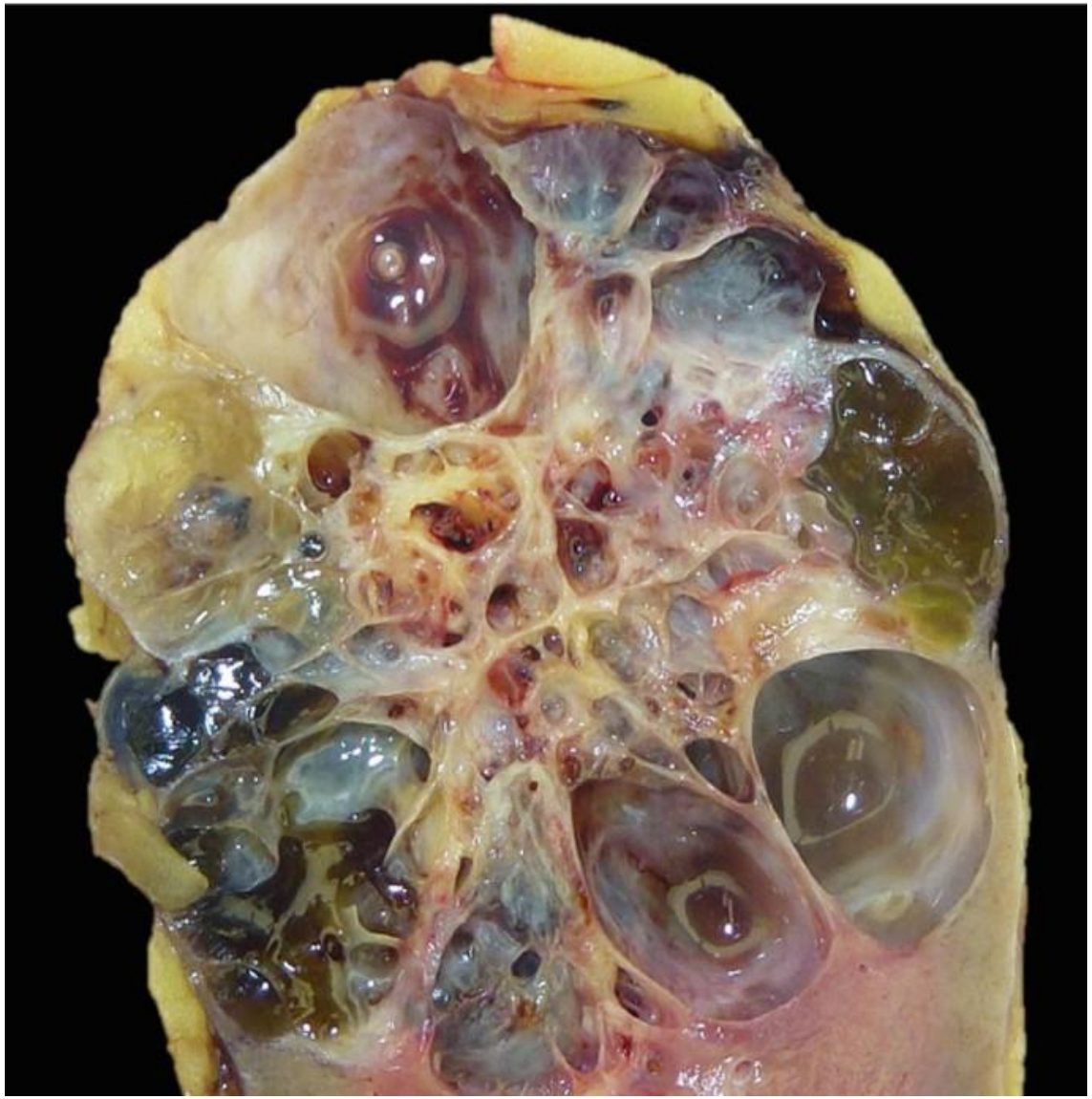
For the cases reported to date, no local recurrence or metastasis has been documented {1549,2590}.

Clear cell papillary renal cell tumour

WHO 2022

Renal cell adenoma
Renal adenomatoid tumor

Ex clear cell renal cell carcinoma

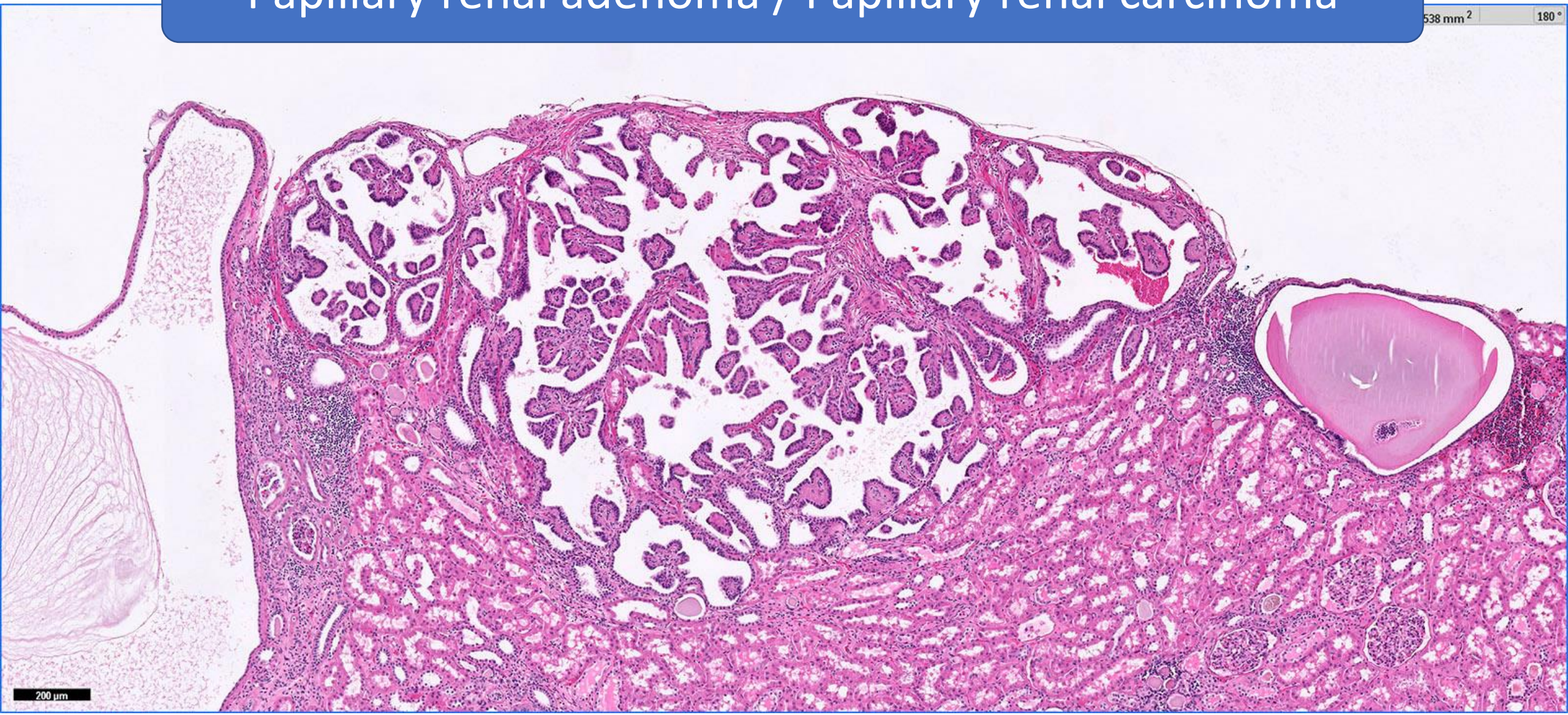


Multilocular cystic renal neoplasm of low malignant potential is a cystic renal tumor with indolent clinical behavior.

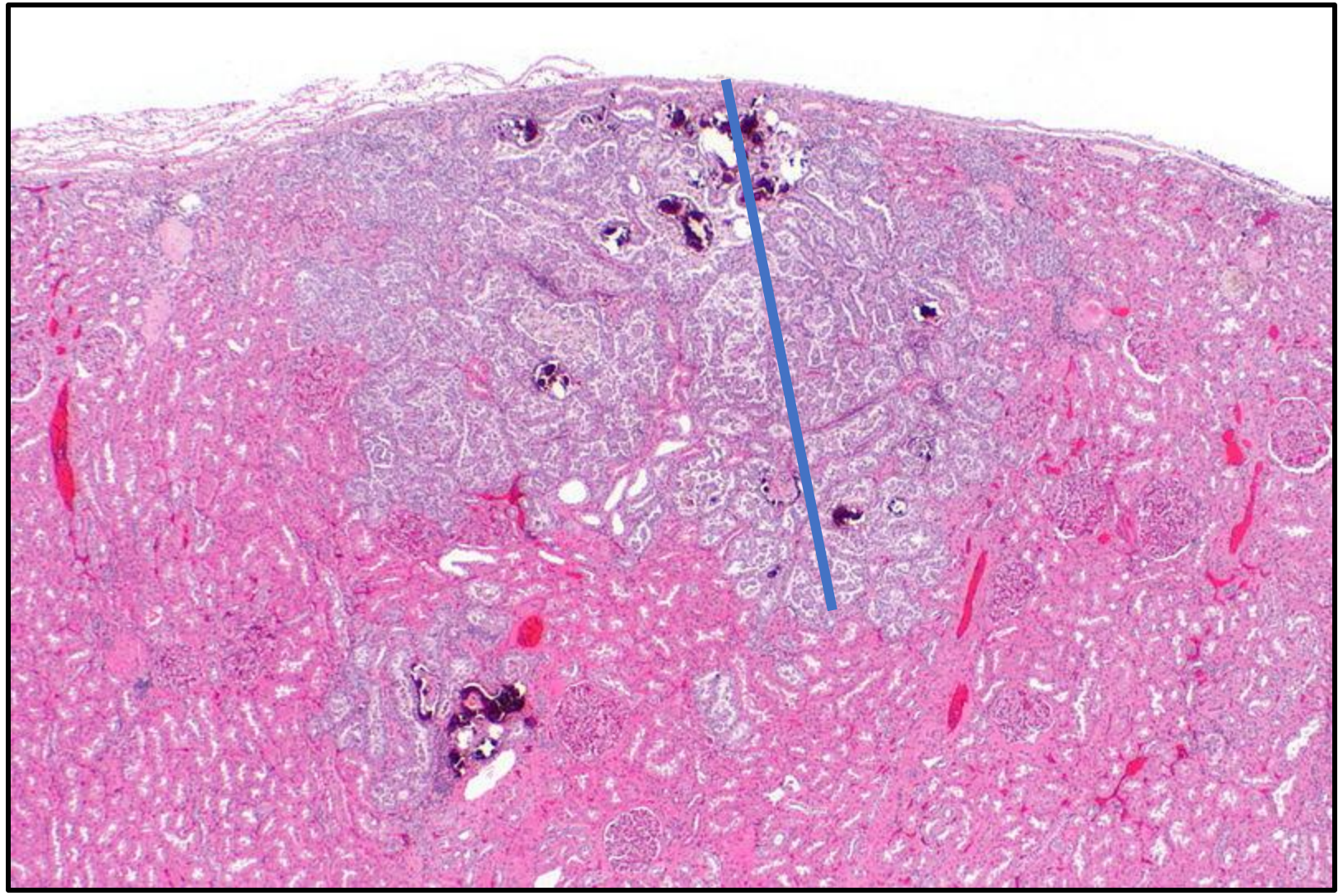
In most of cases, it is an incidental finding during the examination of other health issues.

The true incidence rate is estimated to be between 1.5% and 4% of all RCCs

Papillary renal adenoma / Papillary renal carcinoma




KIDNEY
TRANSPLANT



5 mm – 15 mm
1,5 cm

Ex papillary renal carcinoma

Papillary renal adenoma

Low grade oxyphilic renal neoplasm

Histol Histopathol (2022) 37: 405-413

http://www.hh.um.es

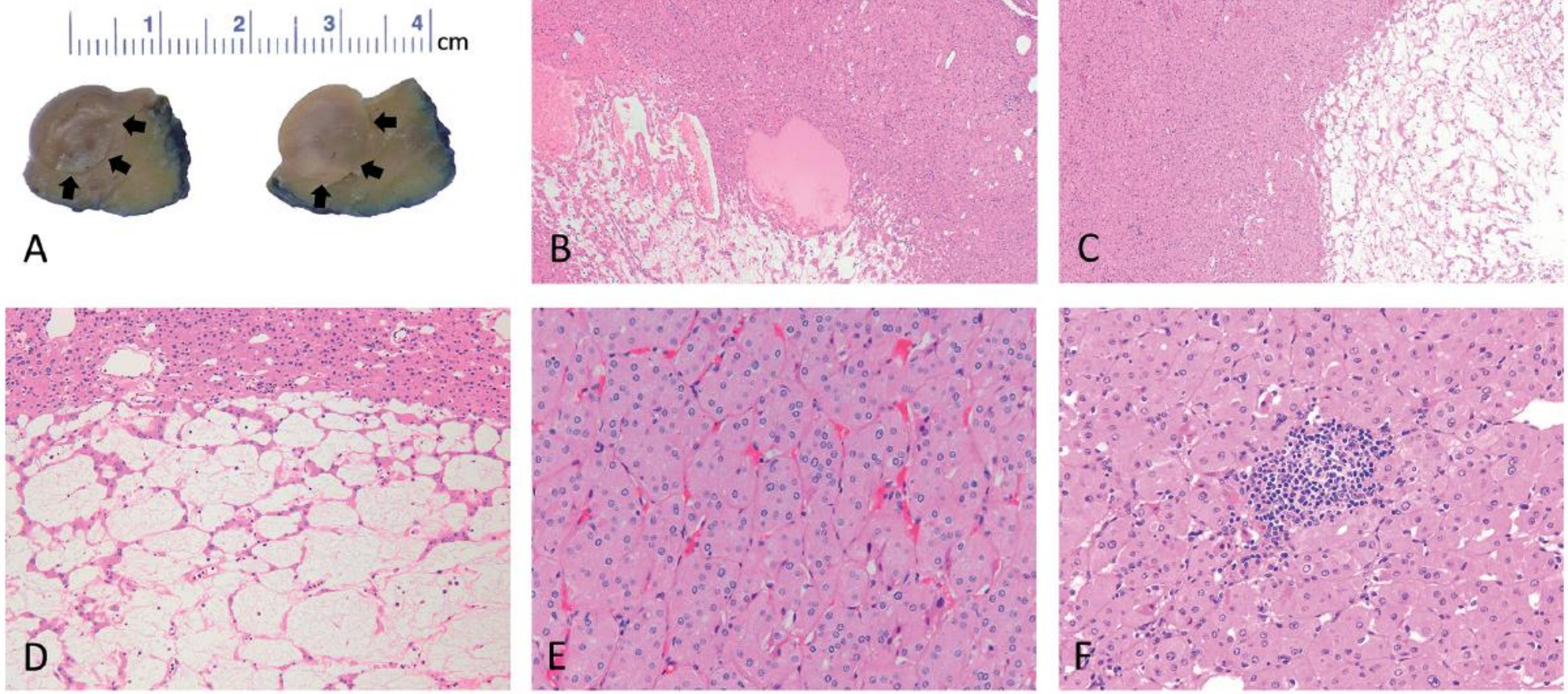
Histology and Histopathology
From Cell Biology to Tissue Engineering

REVIEW **Open Access**

Low-grade oncocytic tumor (LOT) - a new renal entity ready for a prime time: An updated review

Mehdi Mansoor, Farshid Siadat and Kiril Trpkov

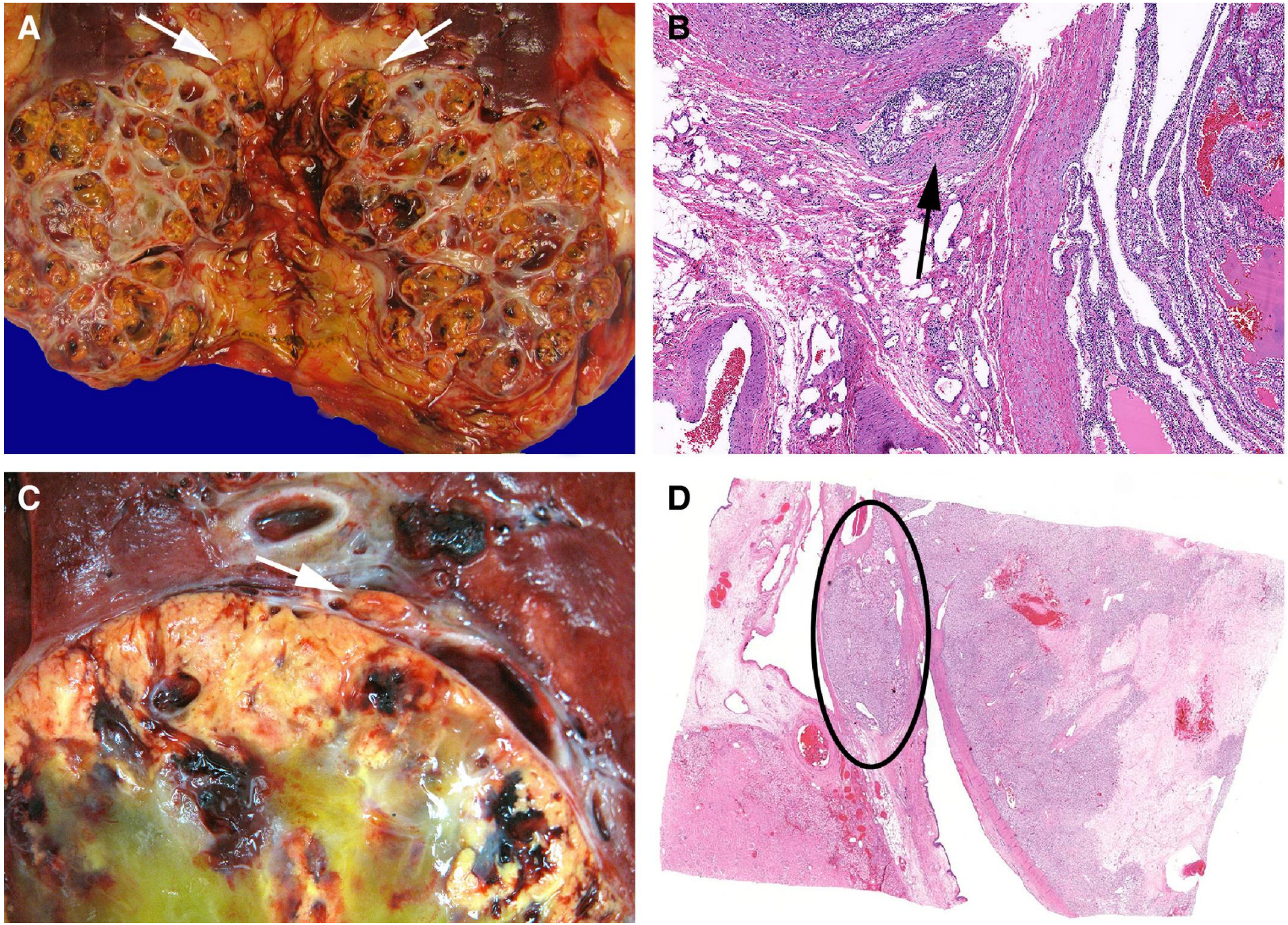
Department of Pathology and Laboratory Medicine, Cumming School of Medicine, University of Calgary and Alberta Precision Laboratories, Calgary, AB, Canada


1
2
3
4
cm
A
B
C
D
E
F

Chromphobe RCC versus Renal Oncocytoma

Table 2. Salient morphologic and immunohistochemical features helpful in the differential diagnosis of low-grade oncocytic tumor (LOT) vs. other similar renal eosinophilic tumors.

Diagnosis	Key distinguishing features	Immunohistochemistry
Low-grade oncocytic tumor (LOT)	Solid sheets and compact nests, may show focal transition to tubuloreticular areas (more centrally) Sharply delineated edematous stromal areas with loose and irregular cell growth ('boats in a bay' arrangement); may show frequent hemorrhage Round to oval nuclei, without irregularities, often with perinuclear 'halos'	CD117- CK7+ GATA3+ (limited data)
Oncocytoma	Diffuse, nested, tubulocystic growth Central stromal areas with 'archipelagenous' growth containing larger cell nests or aggregates Round to oval nuclei that lack perinuclear 'halos'	CD117+ CK7-/+ (usually only scattered cells) GATA3- (limited data)
Chromophobe RCC, eosinophilic	Solid growth, typically no stromal areas Cells with more prominent membranes, irregular (raisinoid) nuclei and perinuclear 'halos'	CD117+ CK7+ (can be variable) GATA3-/+ (limited data)
Hybrid oncocytic tumor (Birt-Hogg Dubé syndrome)	Often multiple tumors with solid or nested growth, and 'hybrid' (oncocytoma/chromophobe-like) look, no stromal areas Often scattered cells with clear cytoplasm (mosaic pattern) Typically round to oval nuclei, perinuclear halos may be present	CD117+ CK7-/+ (usually only scattered cells) Cathepsin K+/- (limited data)
SDH-deficient RCC	Solid to focal tubulocystic growth Edematous stromal areas may be present with scattered cells ('boats in a bay' arrangement) Cells with flocculent cytoplasm and cytoplasmic vacuoles Round to oval (low-grade) nuclei, no nuclear irregularities, lack perinuclear halos (if typical morphology)	CD117- CK7- SDH- AE1/AE3- (often)

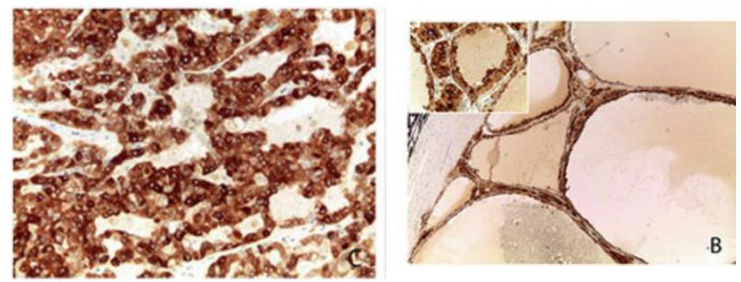

A
B
C
D

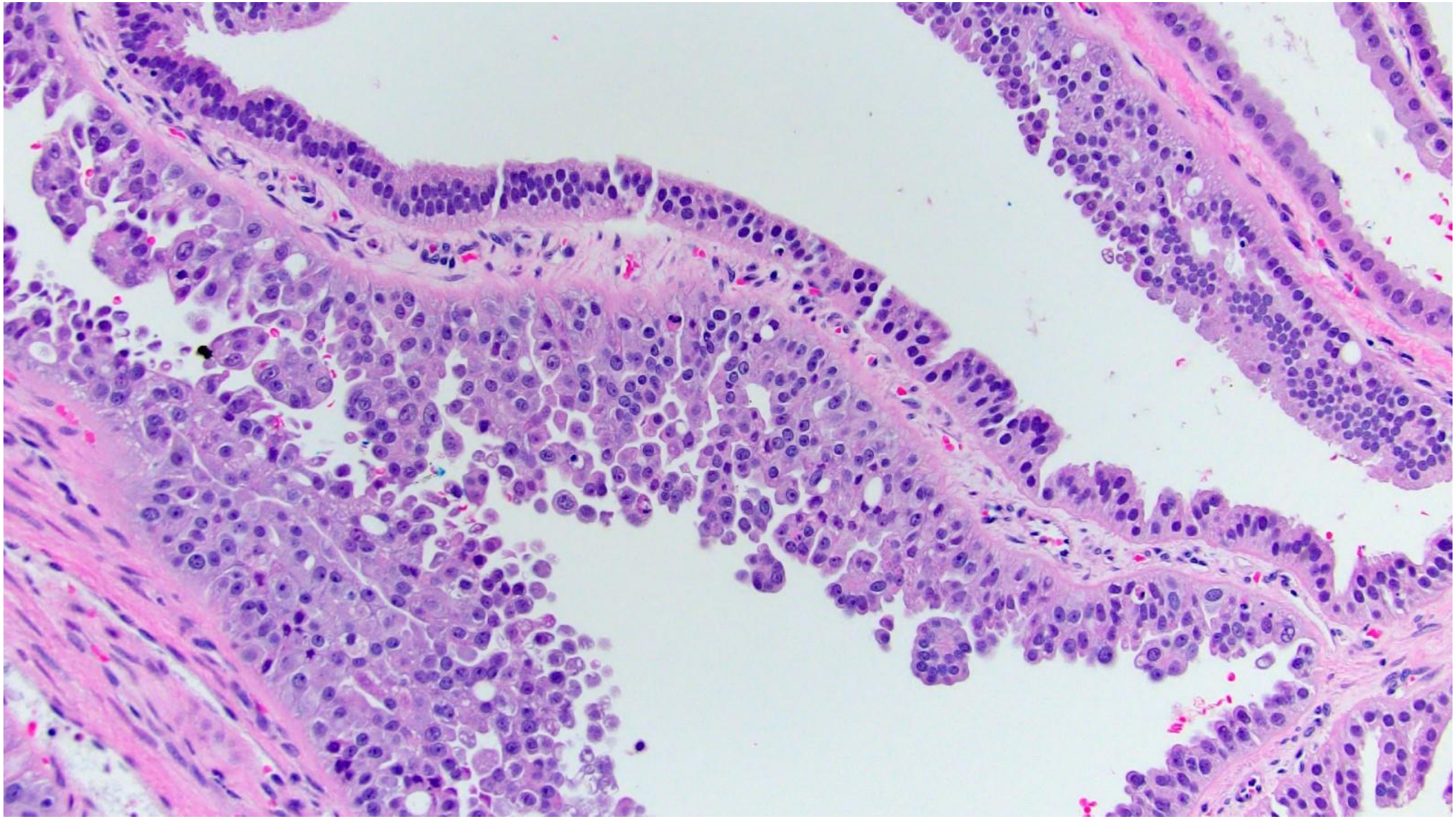
Adult Xp11 translocation renal cell carcinoma

1	68/F/R	pT1bNXMX stage I (5 cm primary)	Molecularly confirmed *ASPL-TFE3* type 1 fusion. t(X;17)(p11;q25)
2	23/F/R	pT1aNXMX stage I (2.8 cm primary)	Cytogenetically confirmed t(X;1)(p11;p34) (*PSF-TFE3* fusion)
3	28/F/R	pT3aNXMX stage III (21 cm primary)	NED 4 mo: cystic and extensively necrotic neoplasm
4	27/F/R	pT1bNXMX stage I (5.5 cm primary)	Biphasic small cell/large cell mimicking t(6;11) renal carcinoma
5	34/F/L	pT1N1M1 stage IV (6.5 cm primary, 3/4 lymph nodes positive, lung metastasis)	Probable *ASPL-TFE3* RCC
6	38/M/L	pT3bN2MX stage IV (8.3 cm primary)	DOD 3 mo; probable *ASPL-TFE3* RCC
7	29/M/?	Stage IV (spinal metastasis)	DOD 10 mo; probable *ASPL-TFE3* RCC
8	20/F/?	Stage IV (supraclavicular lymph node metastasis)	Probable *ASPL-TFE3* RCC
9	47/F/R	pT1bNxMx stage I (5 cm primary)	NA
10	78/M/L	pT3bN2MX stage IV (10 cm primary, 11/15 positive lymph nodes)	Probable *ASPL-TFE3* RCC
11	26/F/R	pT3aNXMX stage III (6 cm primary)	NA
12	37/F/?	pT1aNXMX stage I (2.8 cm primary, partial nephrectomy)	Probable *ASPL-TFE3* RCC
13	28/F/R	pT1bN2MX stage IV (5.8 cm primary, 3/8 positive lymph nodes)	NA
14	58/F/R	pT1bN2MX stage IV (4.8 cm primary, 3/6 positive lymph nodes)	Probable *ASPL-TFE3* RCC
15	63/F/R	pT1NXMX stage I (3.3 cm primary)	Favor *ASPL-TFE3* RCC. Calcified on plain film, thought to be lithiasis until contrast CT was performed; patient underwent ESWL
16	34/M/R	pT3N2MX stage IV (8.8 cm primary)	Developed epidural metastasis at 6 y; probable *ASPL-TFE3* RCC
17	22/F/R	pT1aNXMX stage I (2.1 cm primary, partial nephrectomy)	NED 6 mo
18	33/M/R	pT1bN0M1 stage IV (6.1 cm primary, spinal metastasis)	Developed liver metastasis at 1 y, alive with disease (spinal metastases); probable *ASPL-TFE3* RCC
19	25/M/L	pT2NXMX stage II (9 cm)	Hematuria
20	44/F/L	pT3bN2MX stage IV (7.5 cm primary)	NA
21	29/F/R	pT1bNXMX stage I (6 cm primary)	NA
22	27/F/R	pT2NXMX stage II (7 cm primary)	NA
23	26/F/L	pT2NOMX stage II (7.5 cm primary)	NED 3 y
24	22/F/?	pT1bN2MX stage IV (6 cm primary, 7 lymph nodes positive)	Probable *ASPL-TFE3* RCC protruded into renal pelvis, causing xanthogranulomatous pyelonephritis.
25	32/F/L	pT3aN2MX stage IV (3.5 cm primary, 3 lymph nodes positive)	Cytogenetically confirmed t(X;3)(p11;q23), morphologically similar to *ASPL-TFE3* RCC
26	77/F/L	pT1bNXMX stage I (5 cm primary)	Cystic lesion, present for 13 y by imaging, spindle cell areas
27	38/M/?	pT3N2M1 Stage IV (13 cm primary)	Metastasis to esophagus 1 y after diagnosis
28	30/F/?	pT2N1M1 stage IV (9 cm primary; adrenal, retroperitoneal, mediastinal, cervical nodal	Poor response to interleukin therapy and radiation therapy

lymph-nodal homing

Cathepsin-K immunoexpression





FH-renal cell carcinoma

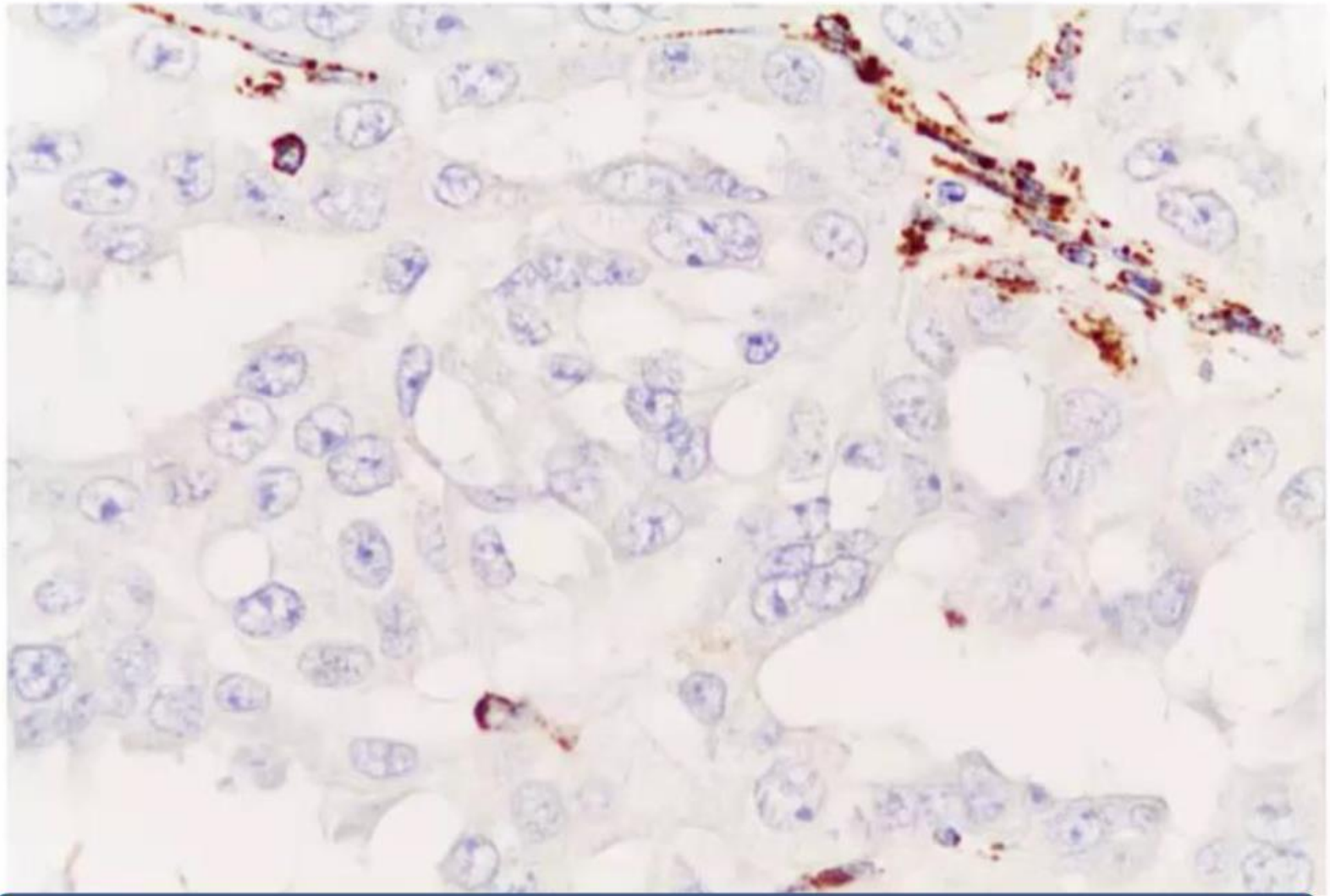
Clinical characteristics of 9 genetically confirmed HLRCC patients with renal tumors

Pt	Sex	Age	Symptoms	Leiomyoma	Family Hx at Presentation	Kidney Mass	Size (cm)	pT	Metastasis	Follow-Up (Month)
1	F	37	Flank pain	Uterine at 32	None	L /solitary	4.9	pT3a	RPLNs	DOD (44)
2	M	38	Flank pain, hematuria	None	None	R/solitary	12.5	pT3a	RPLNs, adrenal, liver, lung, bone	DOD (28)
3	F	32	Abdominal discomfort	Uterine (imaging only)	N/A (adopted)	R/ solitary	9.2	pT3a	RPLNs, lung, liver	DOD (23)
4	M	24	Flank pain	None	Mother ovarian ca	L /solitary	5	pT3a	RPLNs, lung	AWD (10)
5	M	61	Flank pain, hematuria	None	Father RCC, mother breast ca, daughter fibroid	L /two masses	15; 3	pT3a	RPLNs, adrenal, liver	DOD (8)
6	M	42	Flank pain, hematuria	None	None	L /solitary	6.5	pT3a	RPLNs, adrenal, liver	DOD (8)
7	M	34	Incidental renal mass	None	Father non-small cell lung ca	L /solitary	12.2	pT3a	RPLNs	AWD (10)
8	F	30	Flank pain	None	None	R /solitary	6.7	pT3a	RPLNs, adrenal	AWD (12)
9	F	25	Flank pain	Yes (but not identified initially)	Mother RCC	R/solitary	11.5	pT3a	RPLNs	NED (6)

RPLNs: retroperitoneal lymph nodes; DOD: death of disease; AWD: alive with disease; RCC: renal cell carcinoma; ca:cancer

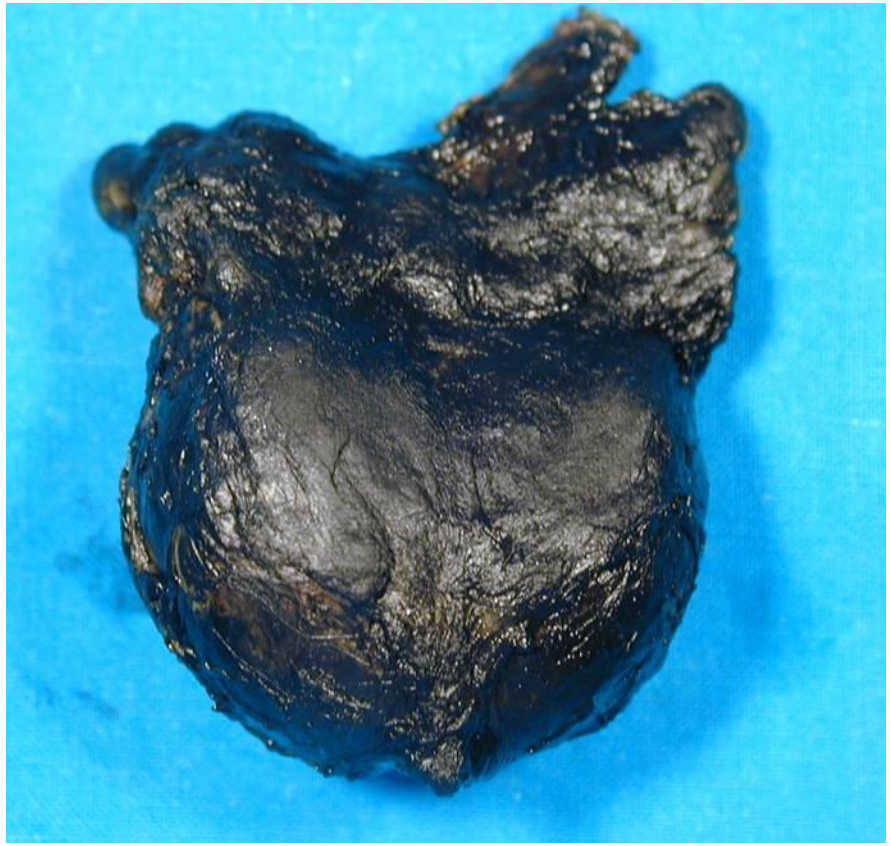
patients died of disease

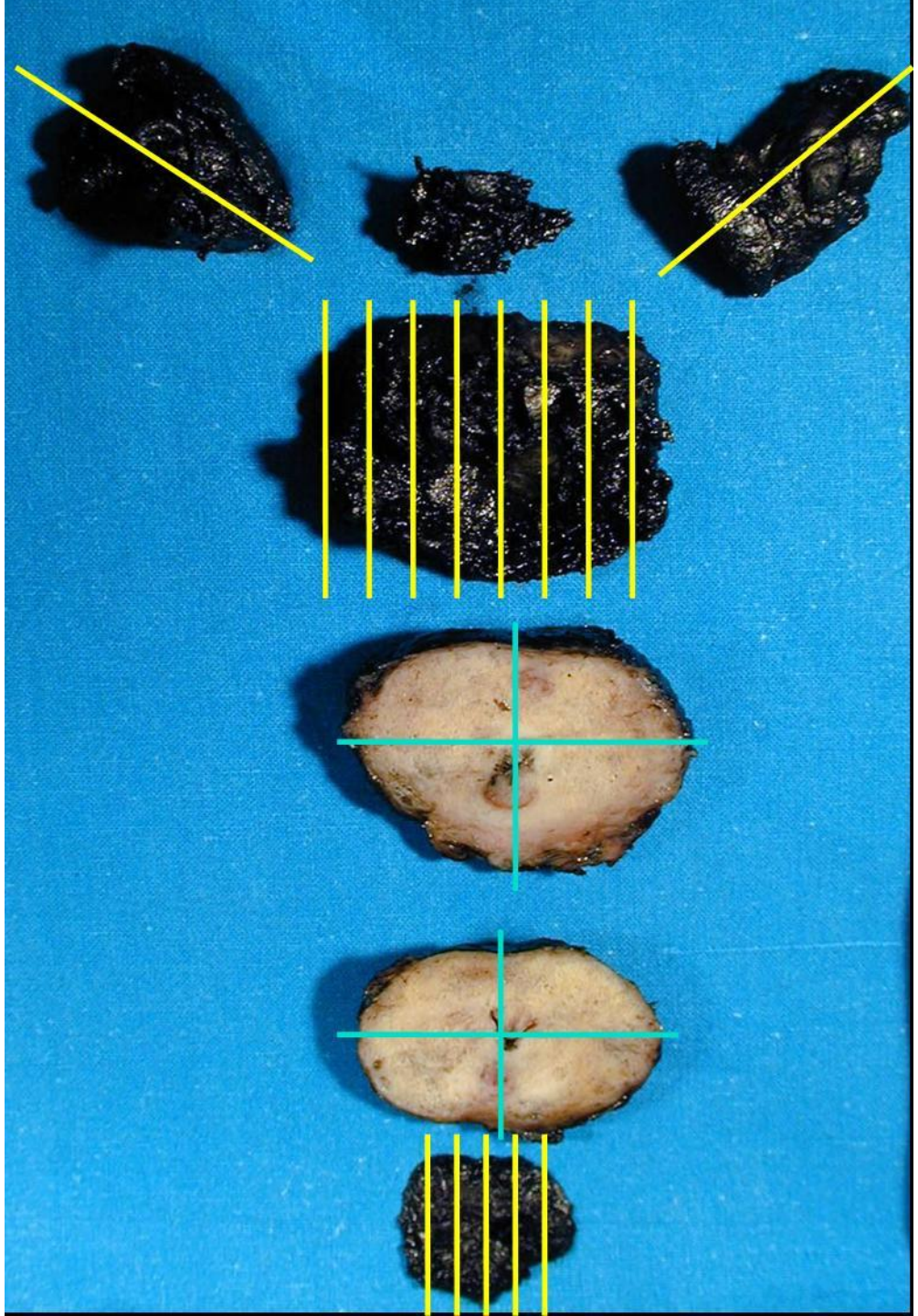
Immunohistochemistry



fumarate hydratase (FH)

Prostatectomy



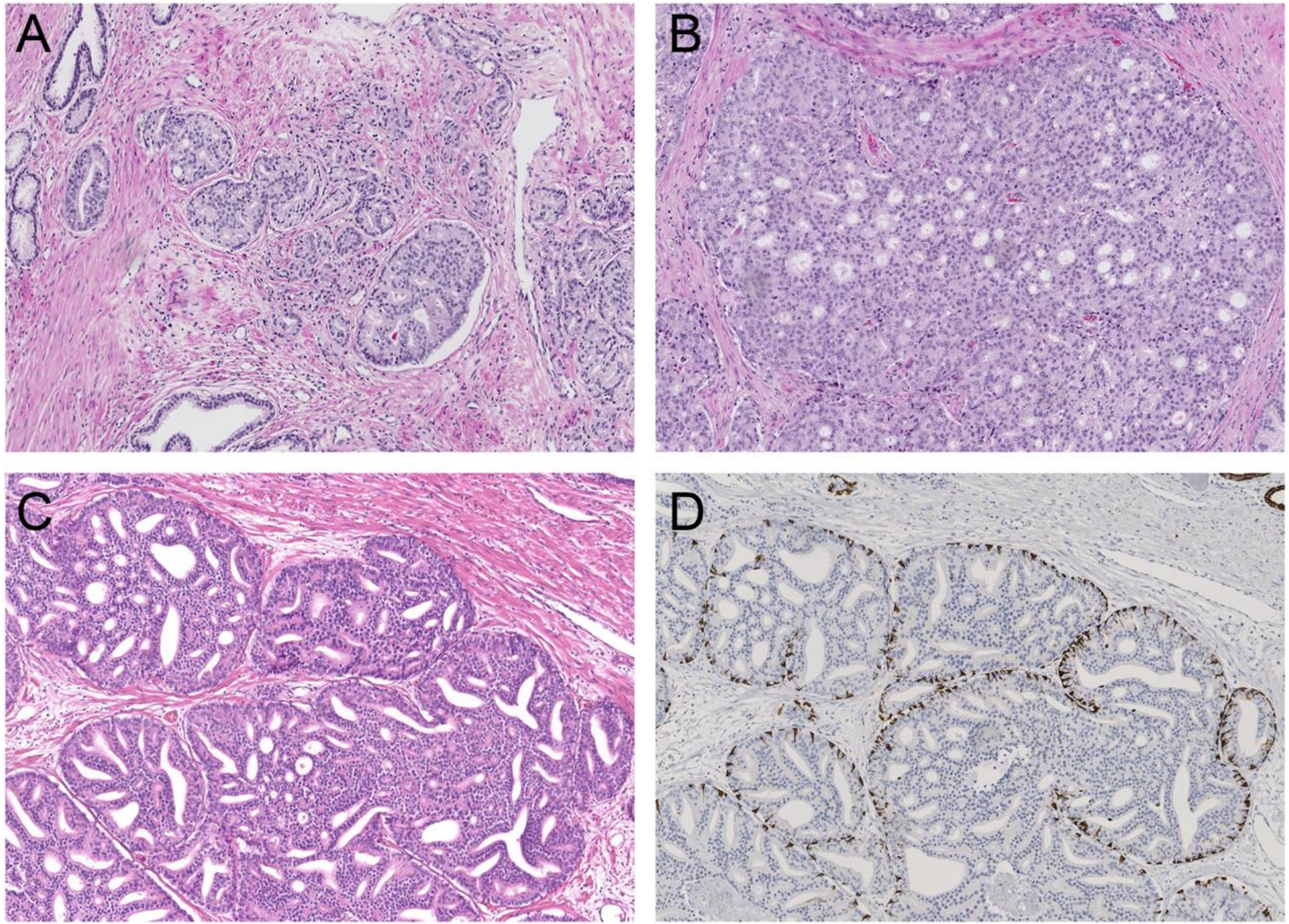


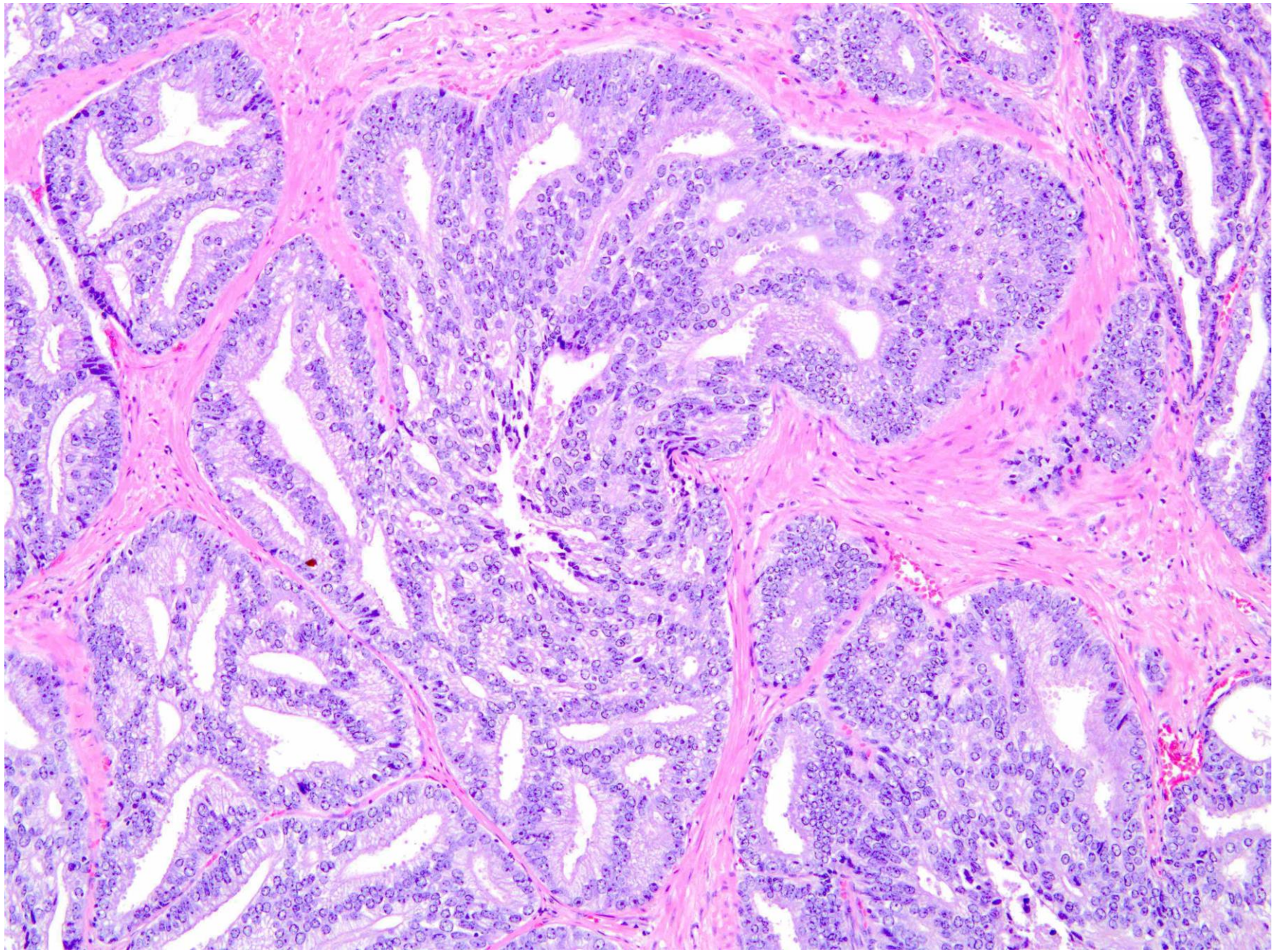
Active survaillance in patient with sporadic prostate adenocarcinoma

Diagnostic factor	Johns Hopkins	Sunnybrook	PRIAS
Clinical stage	T1c	T1c/T2	T1c/T2
PSA level	< 10 ng/ml	< 15 ng/ml	≤ 10 ng/ml
PSA density	< 0.15 ng/ml	--	< 0.2 ng/ml
Gleason score	≤ 6	≤ 6 *	≤ 6
Amount of cancer	1 or 2 positive cores; ≤ 50% cancer in any one core	As evaluated on an individual basis	1 or 2 positive cores

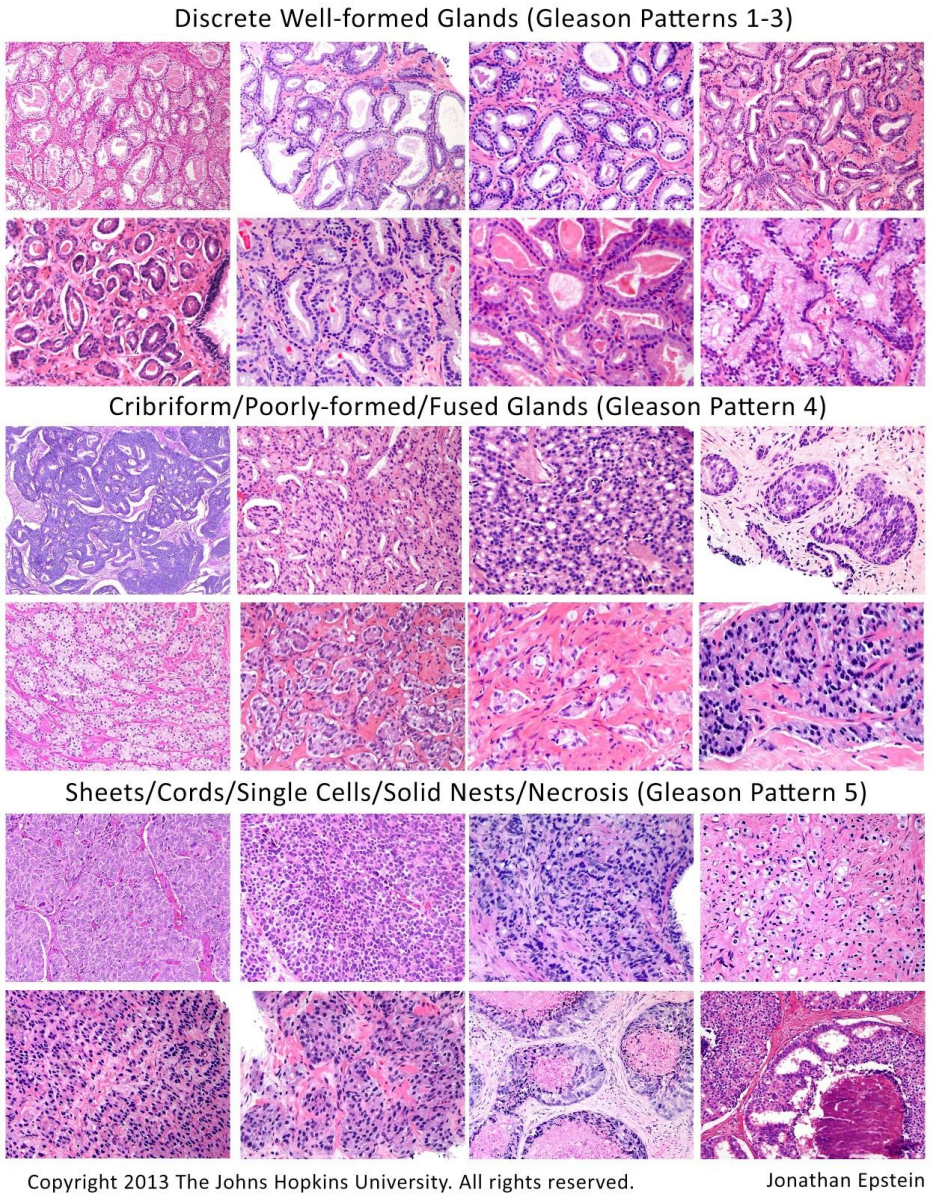
* A Gleason score of 3 + 4 = 7 has historically been acceptable in carefully selected patients in the Sunnybrook cohort.

Risk Group*	Grade Group	Gleason Score
Low/Very Low	Grade Group 1	Gleason Score ≤ 6
Intermediate (Favorable/Unfavorable)	Grade Group 2	Gleason Score 7 (3 + 4)
	Grade Group 3	Gleason Score 7 (4 + 3)
High/Very High	Grade Group 4	Gleason Score 8
	Grade Group 5	Gleason Score 9-10


A
B
C
D



ADENOCARCINOMA DELLA PROSTATA



WHO 2016

3+3 = GRADE GROUP 1
3+4 = GRADE GROUP 2
4+3 = GRADE GROUP 3
4+4 = GRADE GROUP 4
4+5; 5+4; 5+5 = GRADE GROUP 5

Vale sia su biopsia che su pezzo operatorio

new favourable biological entities

new actions in new setting

communication

GUONE
GRUPPO URO-ONCOLOGICO del NORD EST

CONGRESSO ANNUALE GUONE

"LA QUALITÀ DI VITA IN URO-ONCOLOGIA: I PAZIENTI AL CENTRO"

18-19 MAGGIO 2023

UDINE
Sala Ajace, Palazzo d'Aronco del Comune di Udine

WWW.GUONE.ORG

II SESSIONE

Moderatori: *Alessandro Antonelli, Paola Ermacora, Rossano Girometti*

17.00 • Può il patologo contribuire a migliorare la qualità di vita del paziente uro-oncologico?
Matteo Brunelli