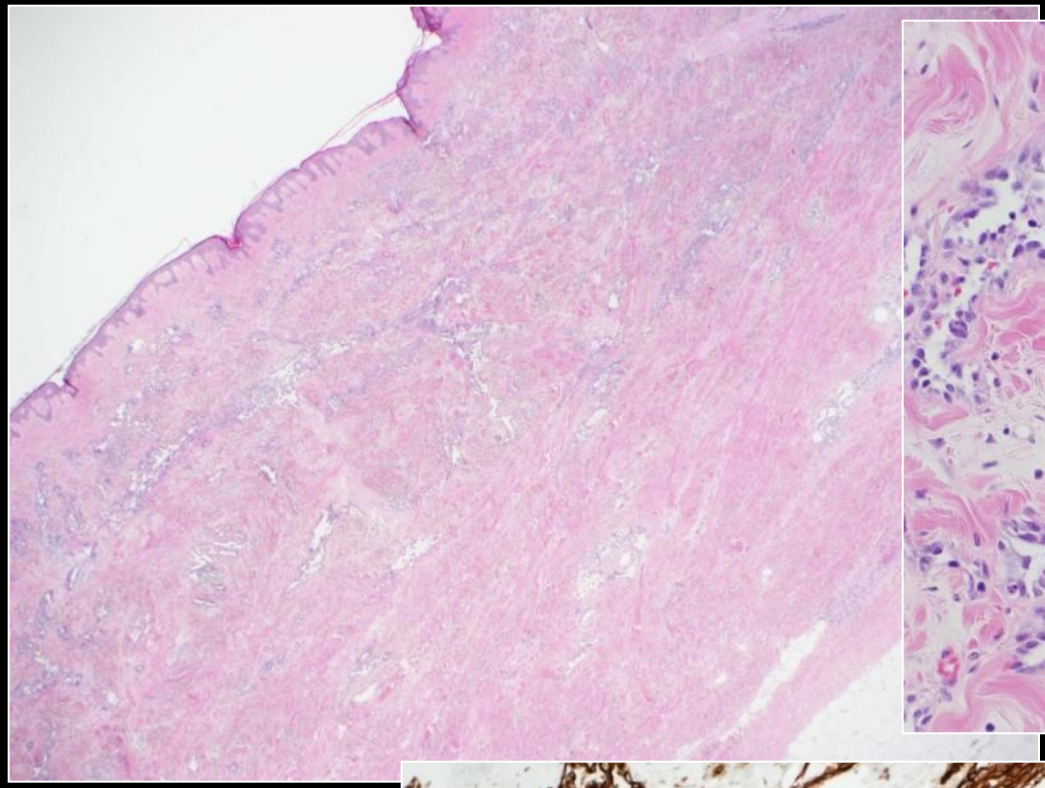
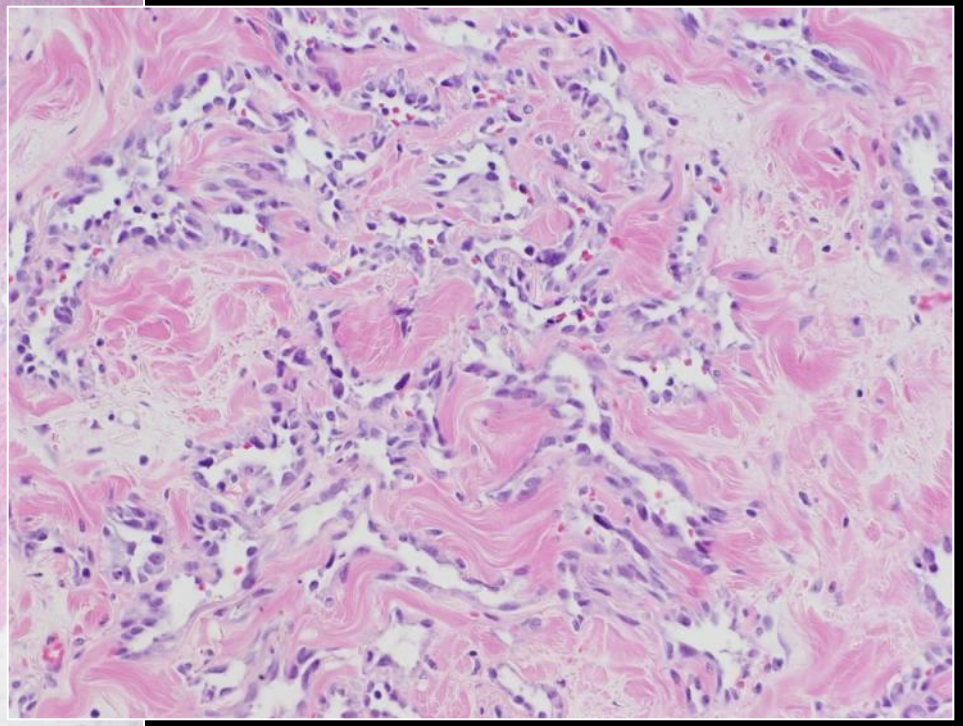
Metaplastic carcinoma subtypes

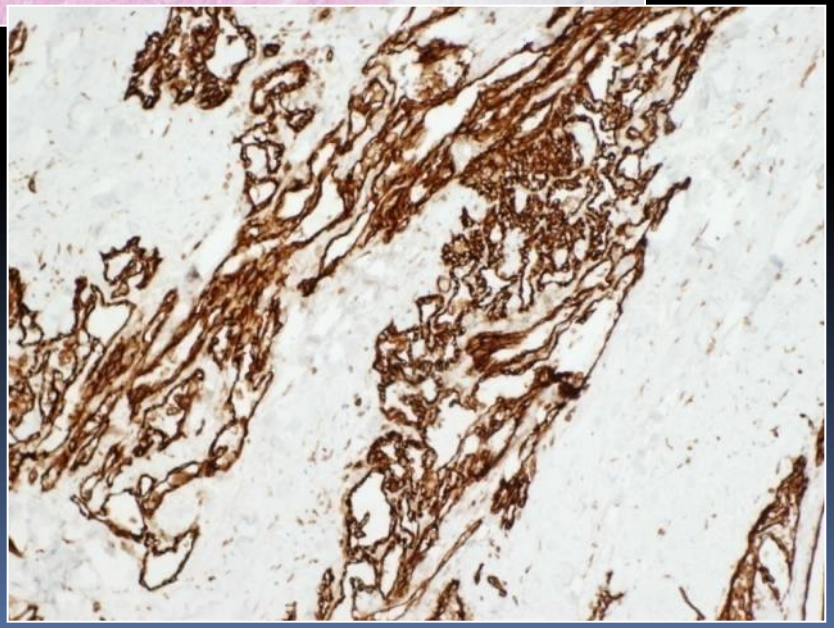
- Low grade adenosquamous carcinoma
- Fibromatosis-like metaplastic carcinoma
- Squamous cell carcinoma
  - Acantholytic/pseudoagiomatoid variant
- Spindle cell carcinoma
- Carcinoma with mesenchymal differentiation
  - Chondroid
  - Osseous
  - Other types
- Mixed metaplastic carcinomas

DDx

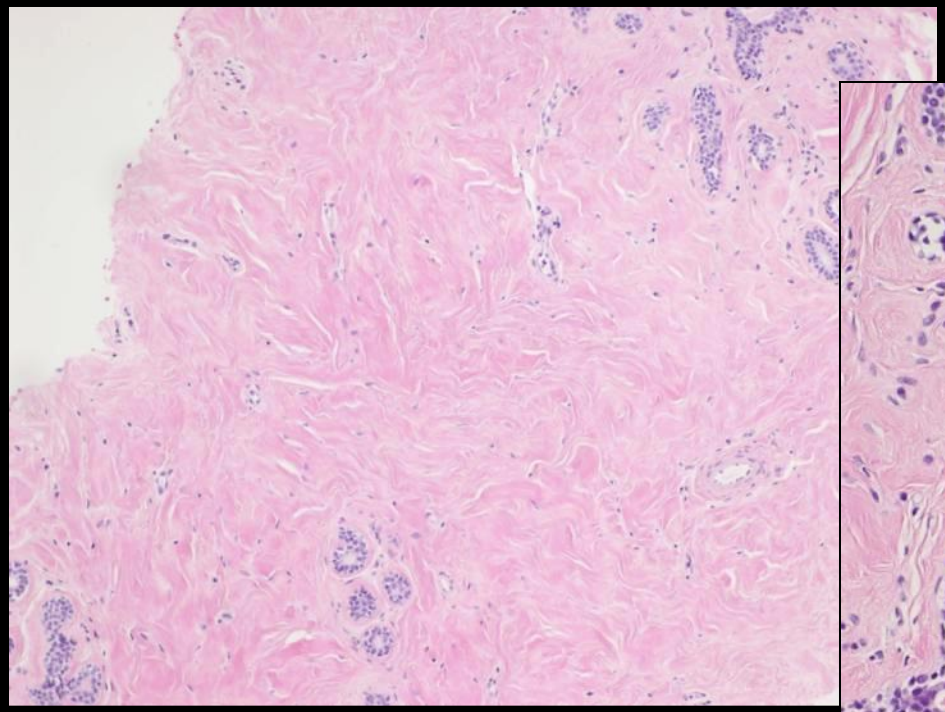
- Metastatic SCC – clinical history

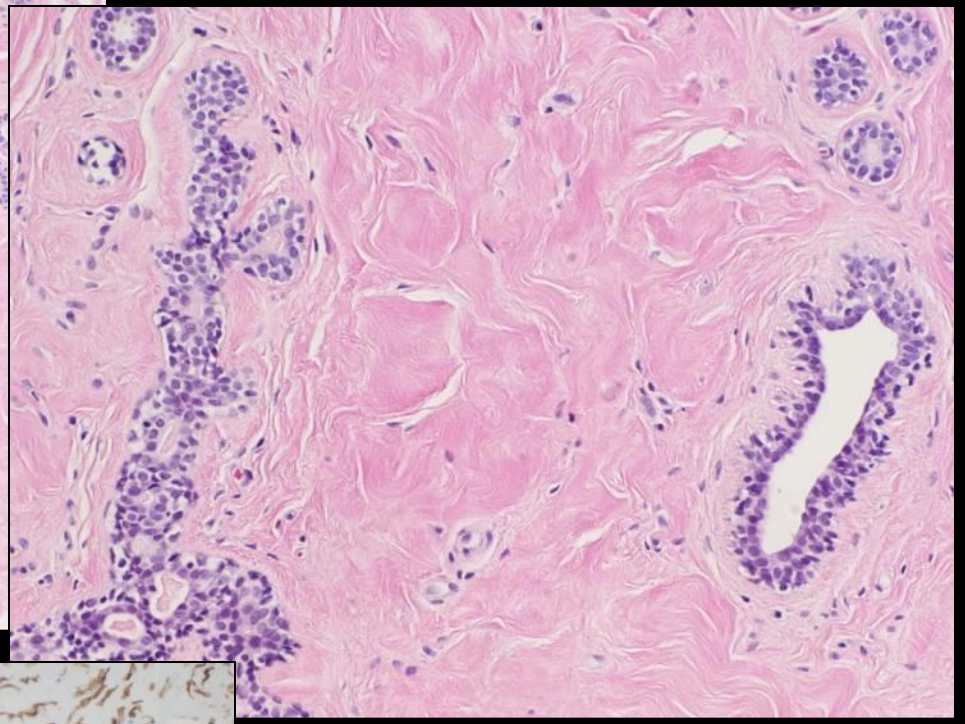


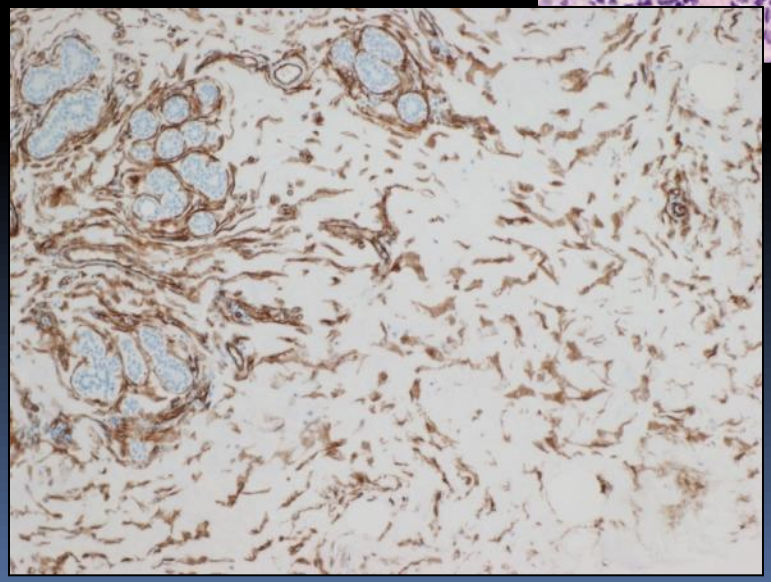




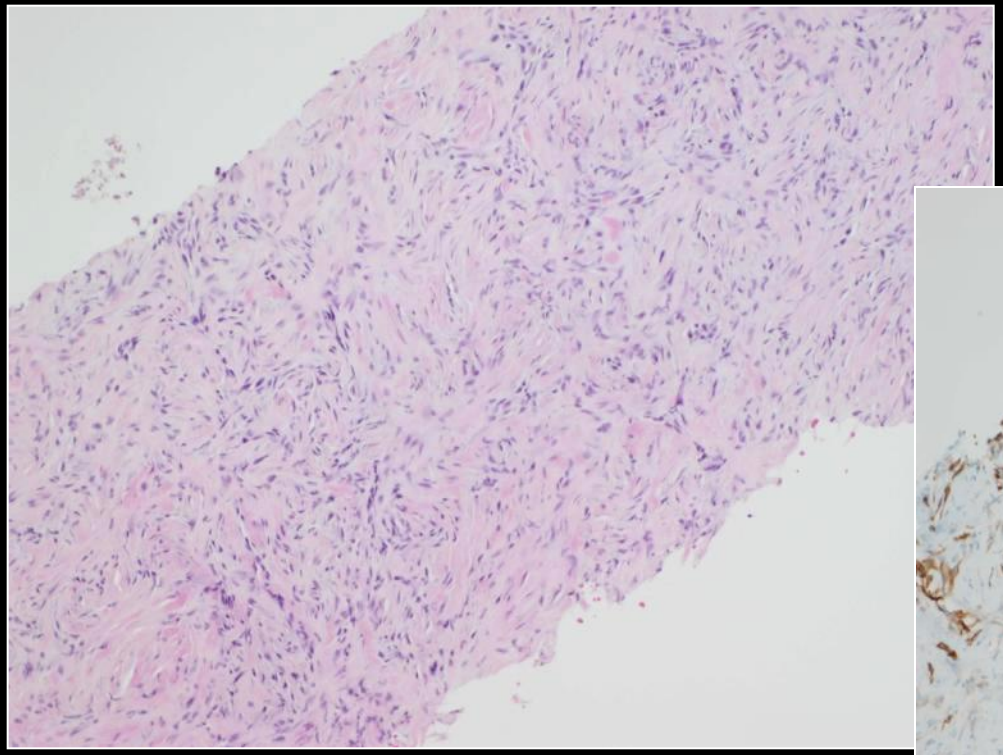
Angiosarcoma

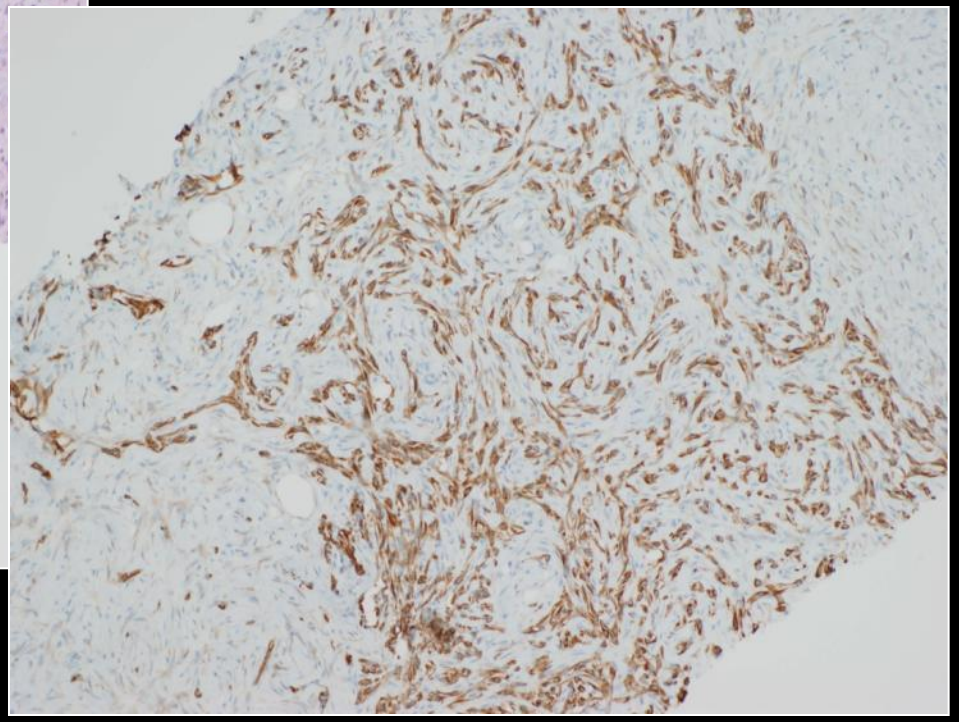


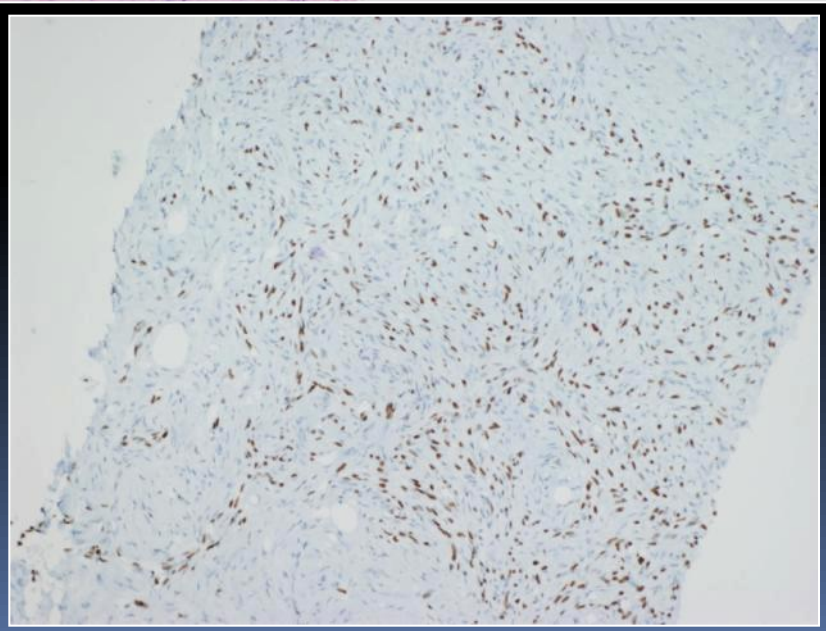




PASH







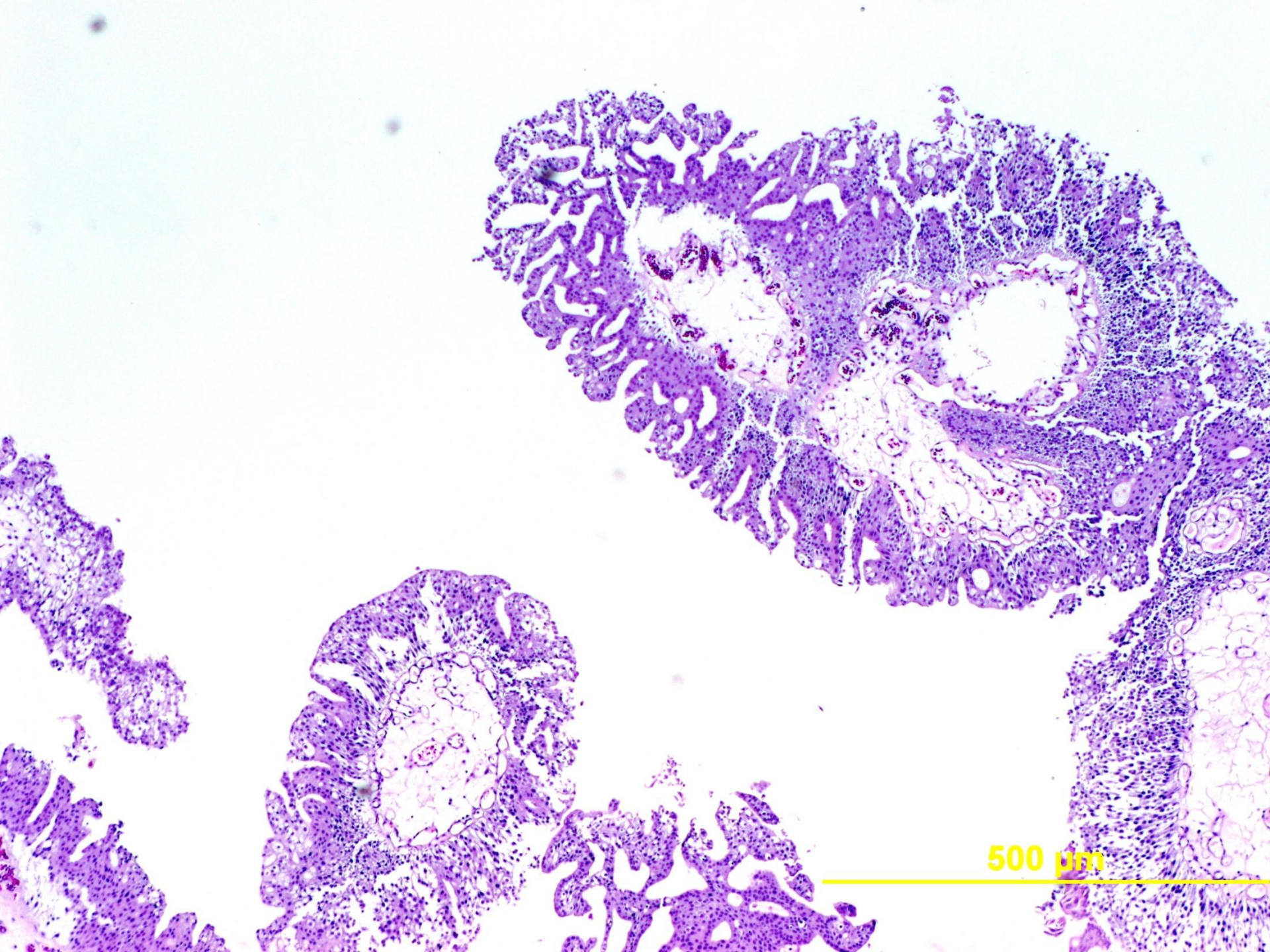
Metaplastic carcinoma – spindle cell ca

Metaplastic carcinomas

- Approximately 1% of all invasive breast cancers
- No distinctive gross appearance except pure SCC
- Biomarkers: Triple negative
- Prognosis:
  - Lower rate of lymph node metastasis than ductal carcinoma, NST. Preferred mets to brain and lung
  - Outcome variable but generally poor with lower response rates to conventional chemotherapy
  - Some studies suggest better outcome in low grade adenosquamous ca and fibromatosis-like ca

Case submitted by Dr. Cheng Wang
Capital District Health Authority / Dalhousie University

59 year old male with hematuria. A mass was seen on cystoscopy (TUR / biopsy).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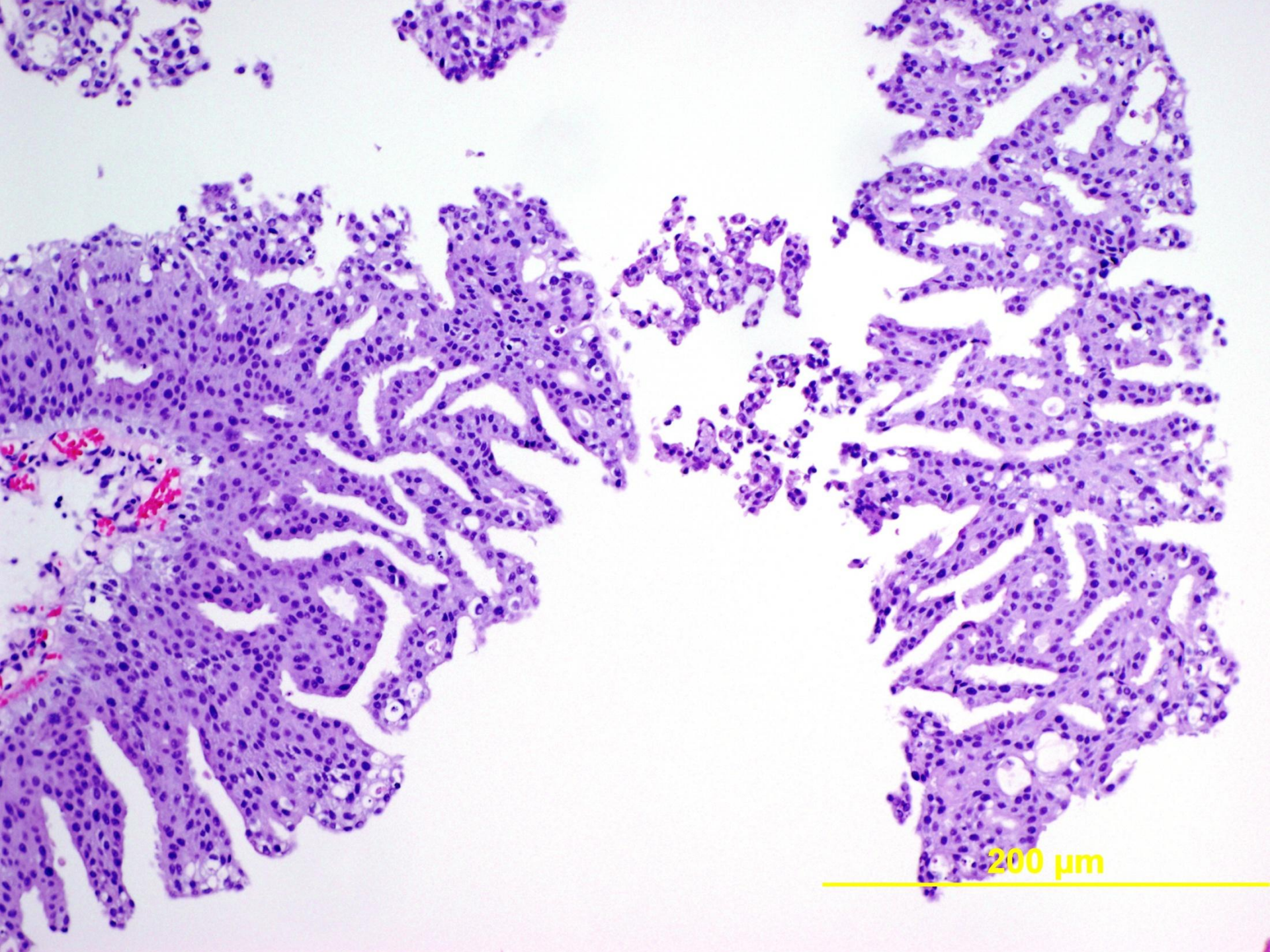
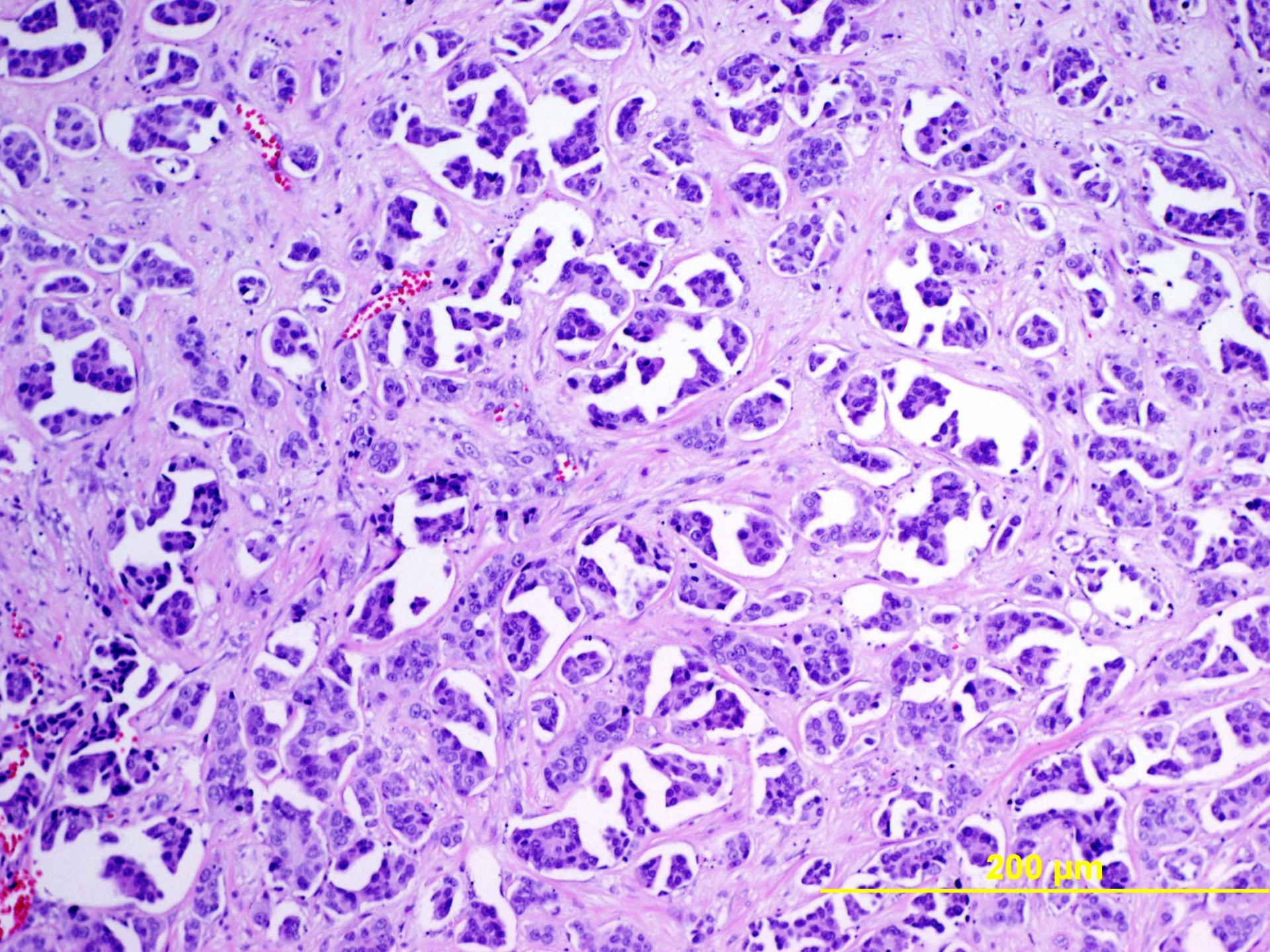
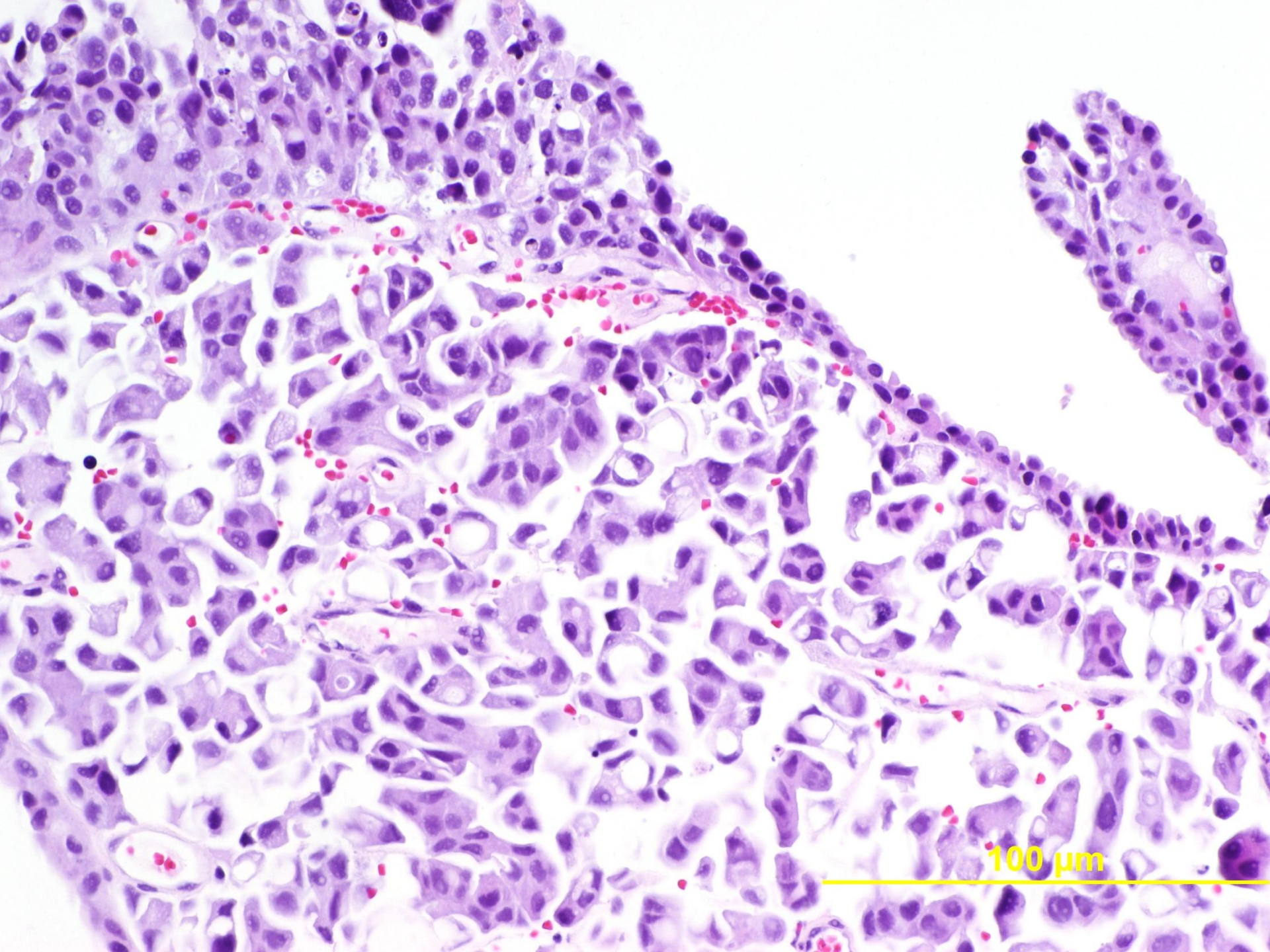
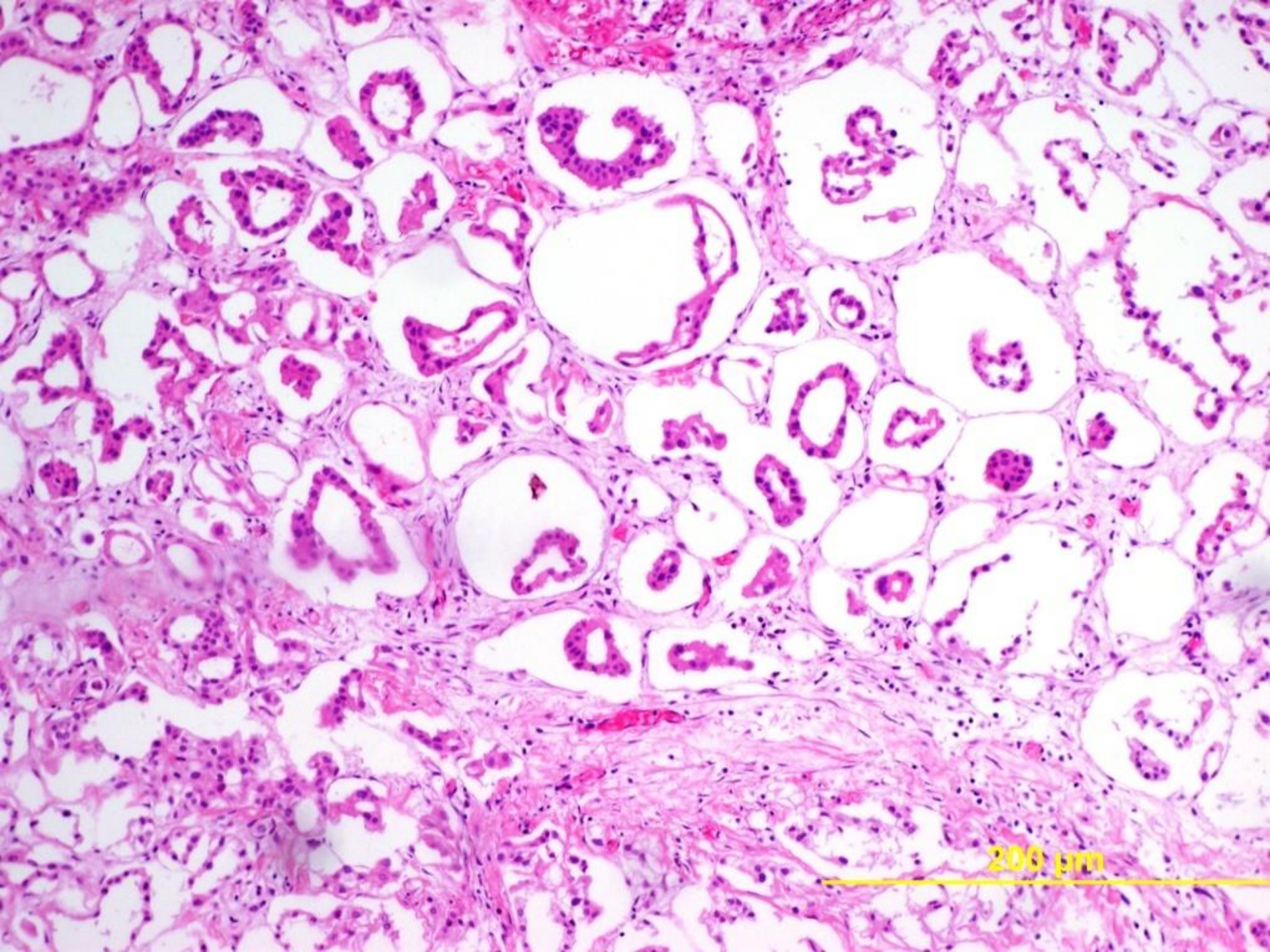

200 µm


200 µm


100 µm


200 µm

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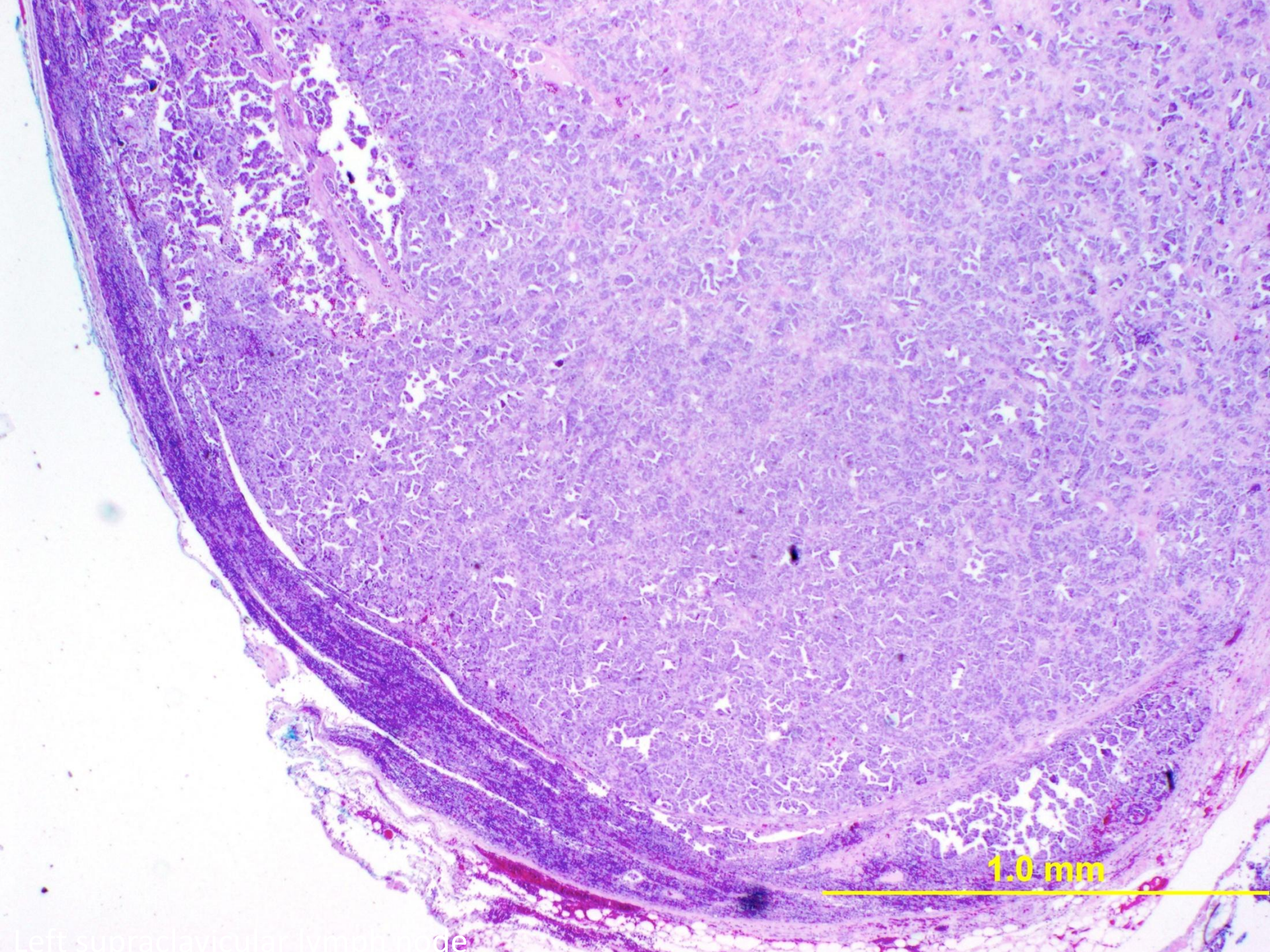
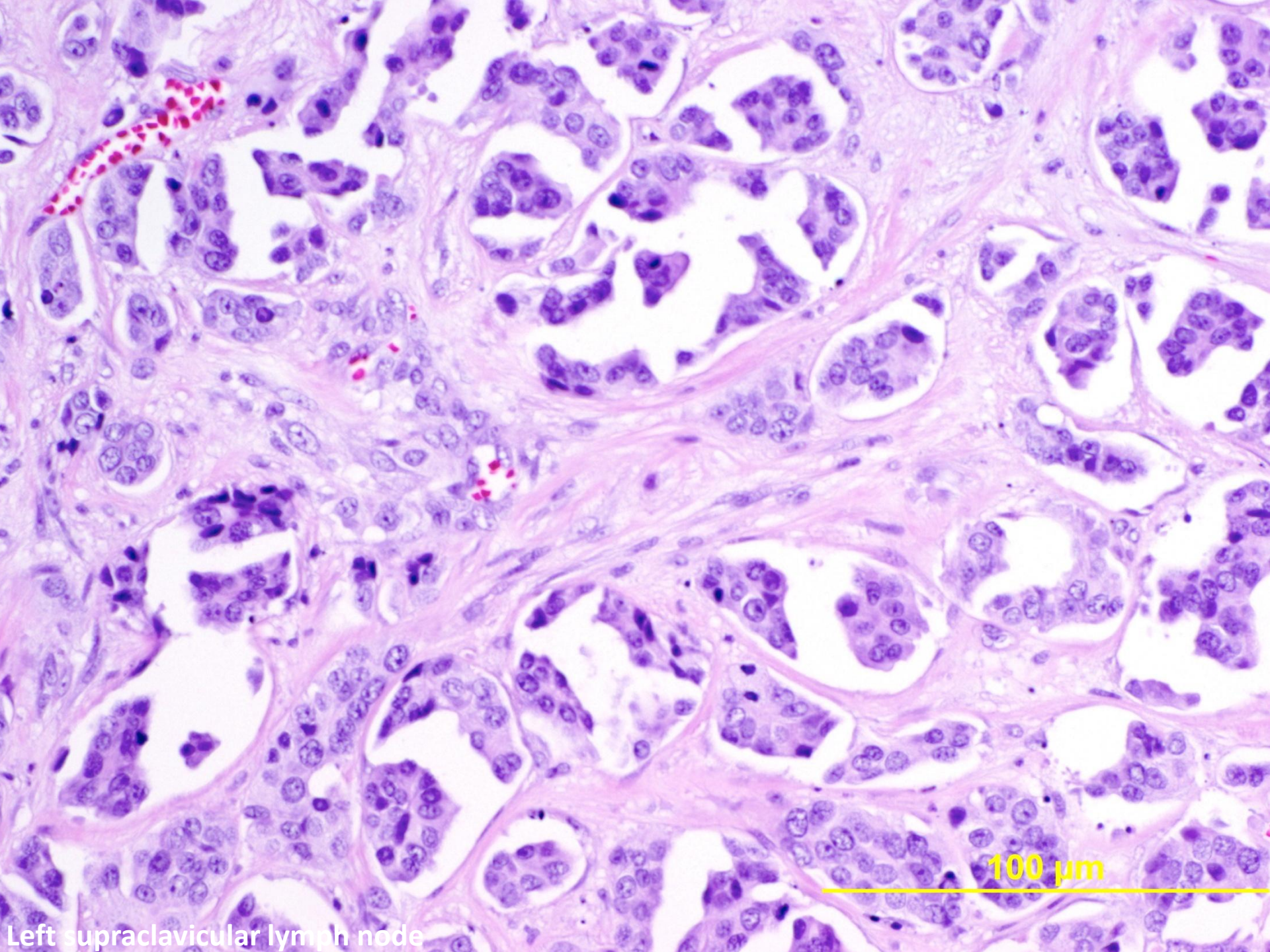
Additional history

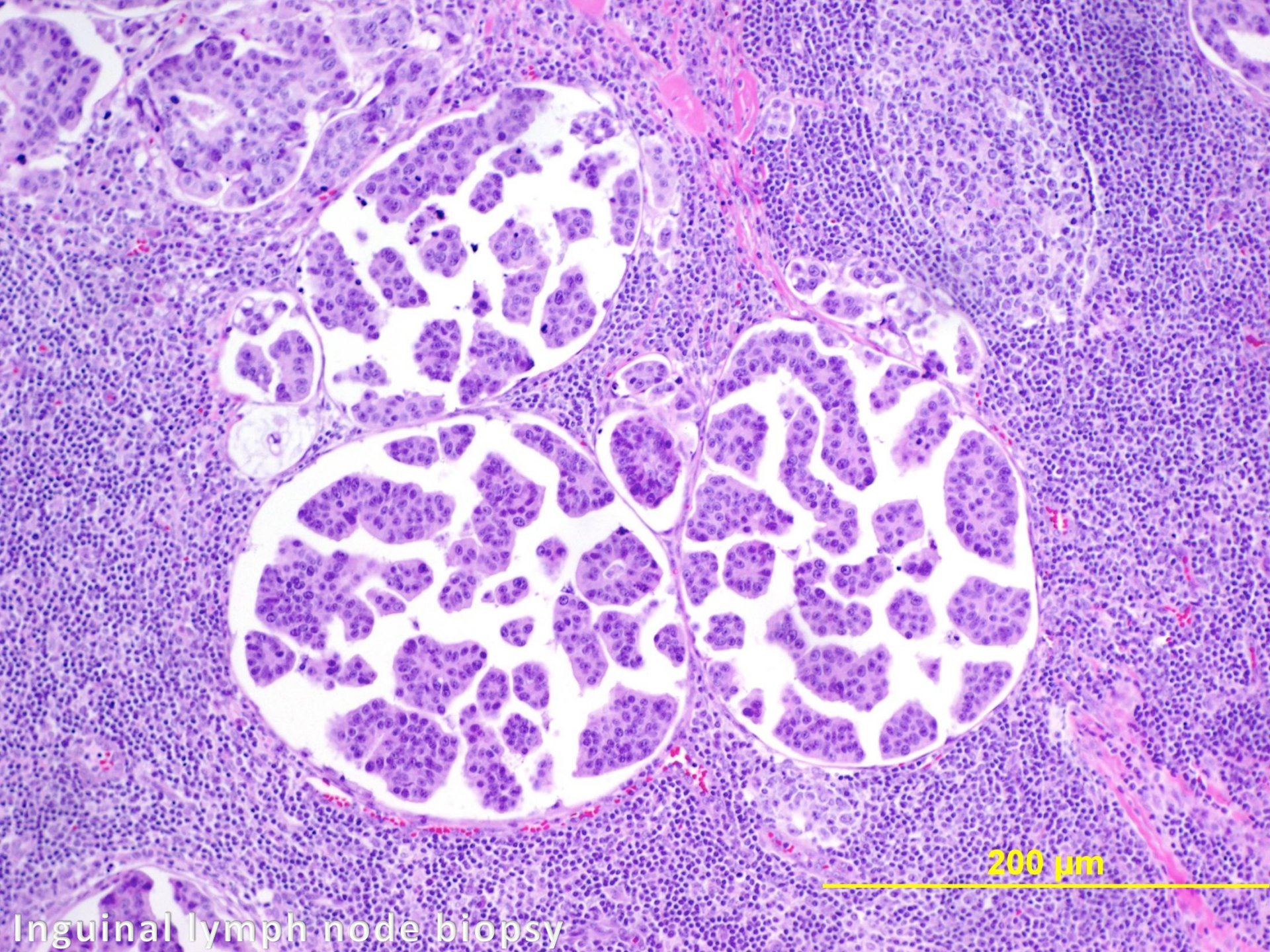
- Patient was then treated with BCG in 2010
- Unfortunately three years later, the patient developed multifocal lymphadenopathy



Left supraclavicular lymph node



Left supraclavicular lymph node



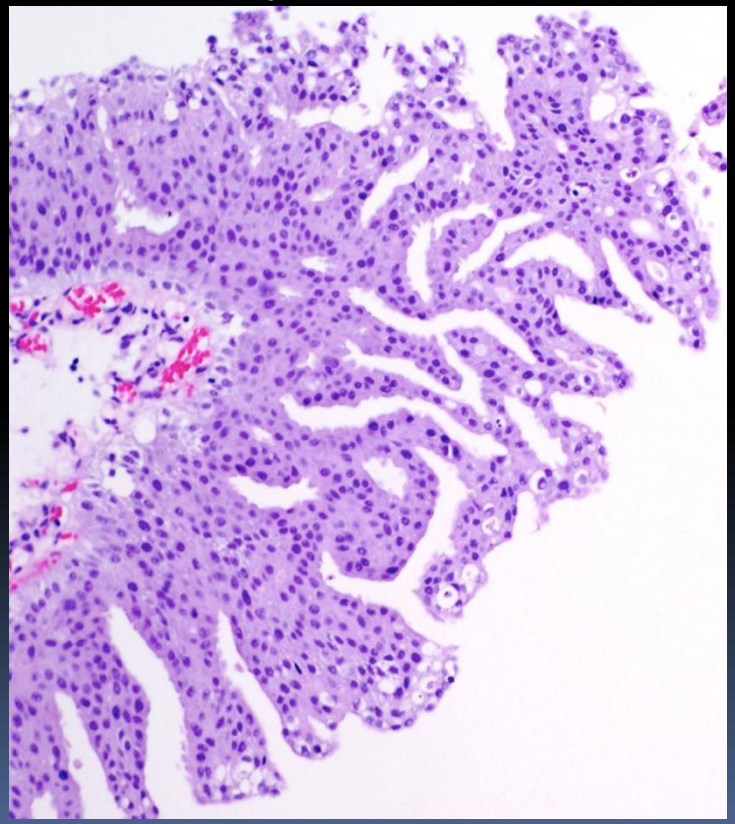
Inguinal lymph node biopsy

Urothelial Carcinoma Micropapillary Variant

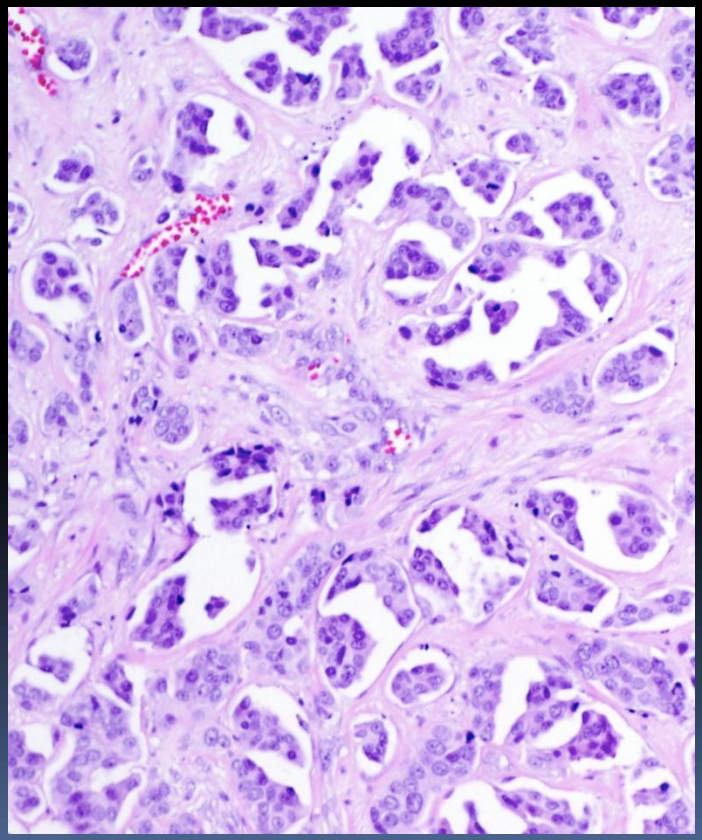
- More frequent in elderly men (M:F 5:1, mean age: 66) and present with hematuria
- Often co-exists with the conventional urothelial carcinoma. Pure micropapillary variant is rare (about 1% of all urothelial carcinoma).
- Most cases of the micropapillary variant are high stage cancer at diagnosis with frequent lymph node metastasis

Micropapillary variant: histological features

- Non-invasive: Slender-delicate fine papillary and filiform processes



- Invasive: small clusters in back to back lacunae



Invasive micropapillary urothelial carcinoma of the bladder☆,☆☆

Antonio Lopez-Beltran MD, PhD[a,*], Rodolfo Montironi MD, FRCPath[b], Ana Blanca PhD[c], Liang Cheng MD[d]

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[c]*Biomedical Research Unit, University Hospital, E14004 Cordoba, Spain*
[d]*Department of Pathology and Laboratory Medicine, Indiana University School of Medicine, Indianapolis, IN 46202, USA*

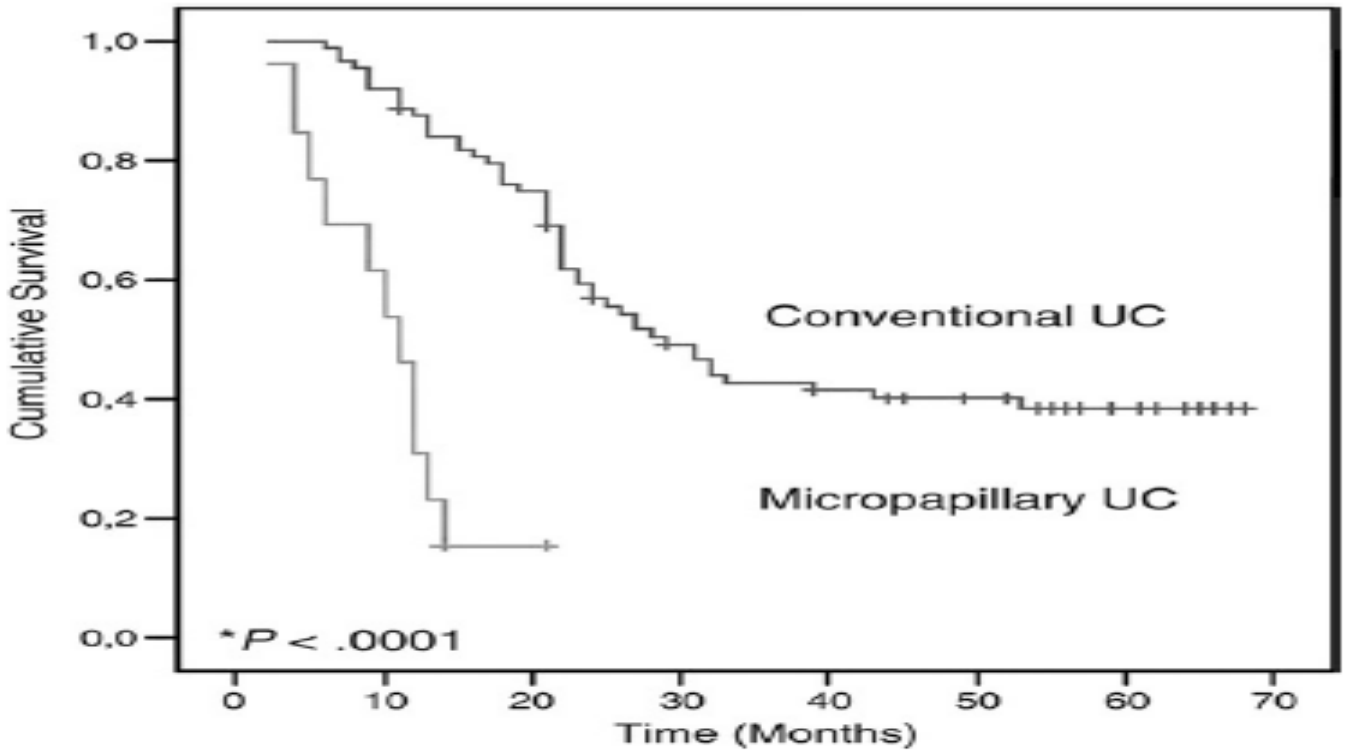

Fig. 2 Kaplan-Meier plots showing bladder cancer–specific mortality probability for conventional urothelial carcinoma compared with invasive micropapillary carcinoma. *P value based on log-rank test.

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Urologic Oncology: Seminars and Original Investigations ▮ (2014) ▮▮▮–▮▮▮

UROLOGIC ONCOLOGY

Original article

Micropapillary bladder cancer: Current treatment patterns and review of the literature

Daniel L. Willis, M.D.[a], Thomas W. Flaig, M.D.[b], Donna E. Hansel, M.D., Ph.D.[c], Matthew I. Milowsky, M.D.[d], Robert L. Grubb, M.D.[e], Hikmat A. Al-Ahmadie, M.D.[f], Elizabeth R. Plimack, M.D., M.S.[g], Theresa M. Koppie, M.D.[h], David J. McConkey, Ph.D.[a], Colin P. Dinney, M.D.[a], Vanessa A. Hoffman, M.P.H.[i], Michael J. Droller, M.D.[j], Edward Messing, M.D.[k], Ashish M. Kamat, M.D.[a,*]

Survey results for stage-specific management of MPBC

Question	Response (%)
Treatment recommendation for cTa stage MPBC	
TUR alone followed by observation	22.0
Intravesical BCG	37.3
Early radical cystectomy	28.0
Neoadjuvant chemotherapy followed by radical cystectomy	0
Not applicable to my practice	12.7
Treatment recommendation for cT1 stage MPBC	
TUR alone followed by observation	1.7
Intravesical BCG	11.9
Early radical cystectomy	72.9
Neoadjuvant chemotherapy followed by radical cystectomy	7.6
Radiation therapy (±chemotherapy)	0
Not applicable to my practice	5.9

Diagnostic Criteria for Invasive Micropapillary Variant Proposed By Dr. J. McKenney

Recommended Restricted Criteria

Major feature

① Multiple small nests in same lacunar space

Frequently seen features

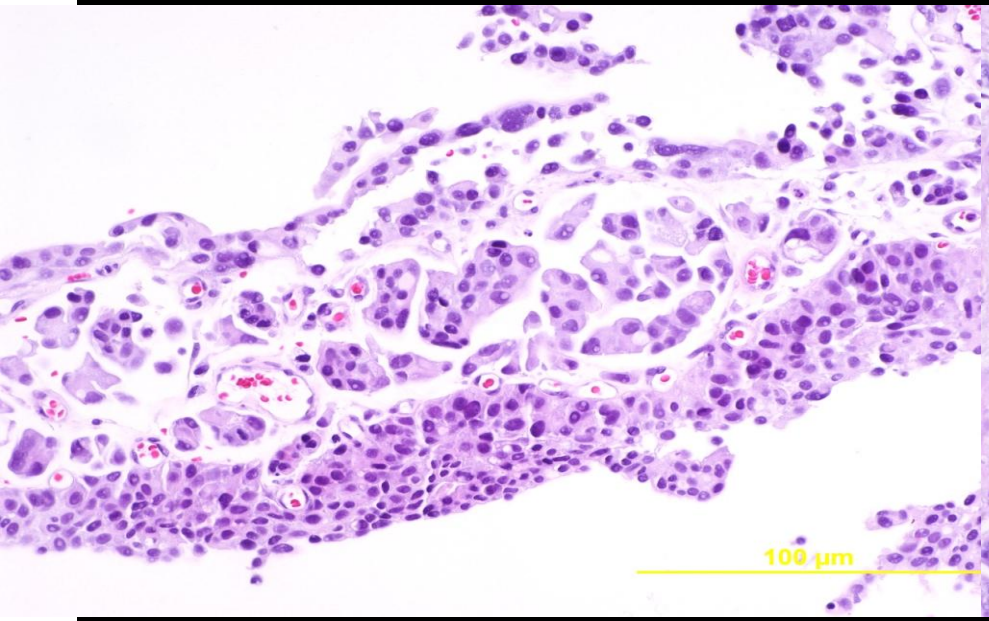
① Epithelial ring forms

② Back to back lacunae

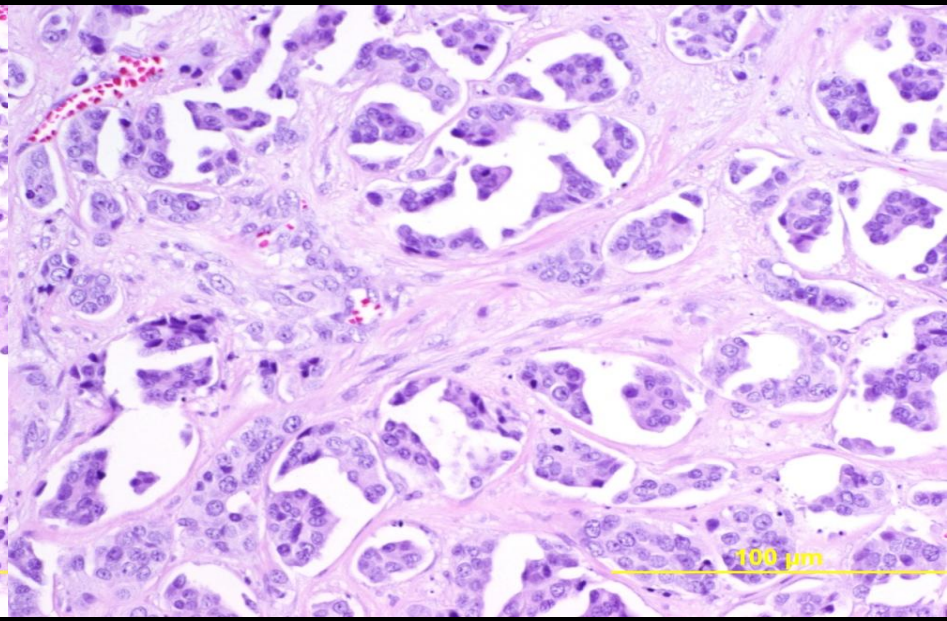
③ Peripheral nuclei

④ Cytoplasmic vacuolization

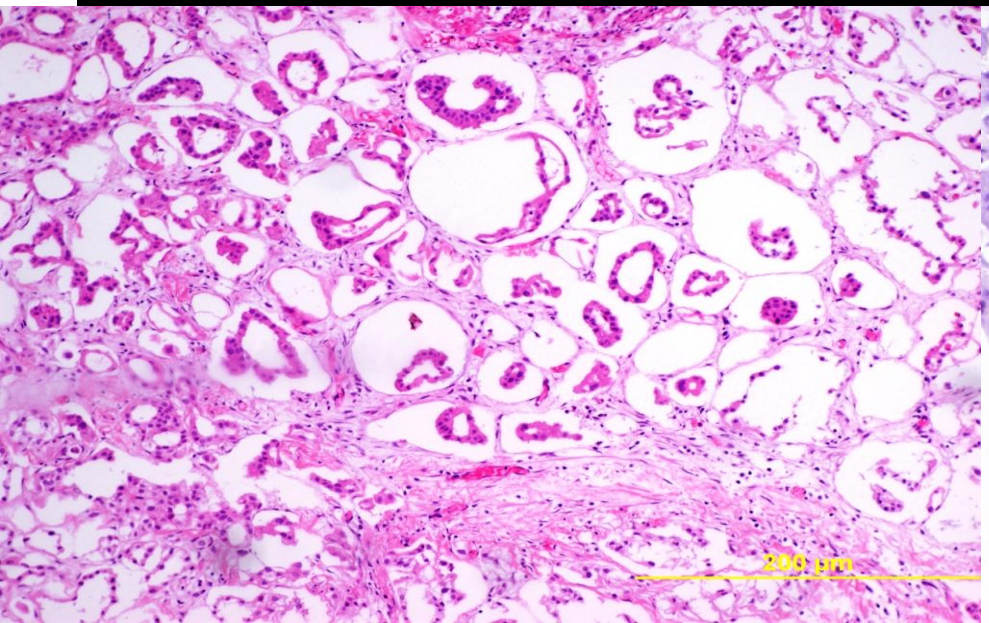
Multiple nests in same lacunae



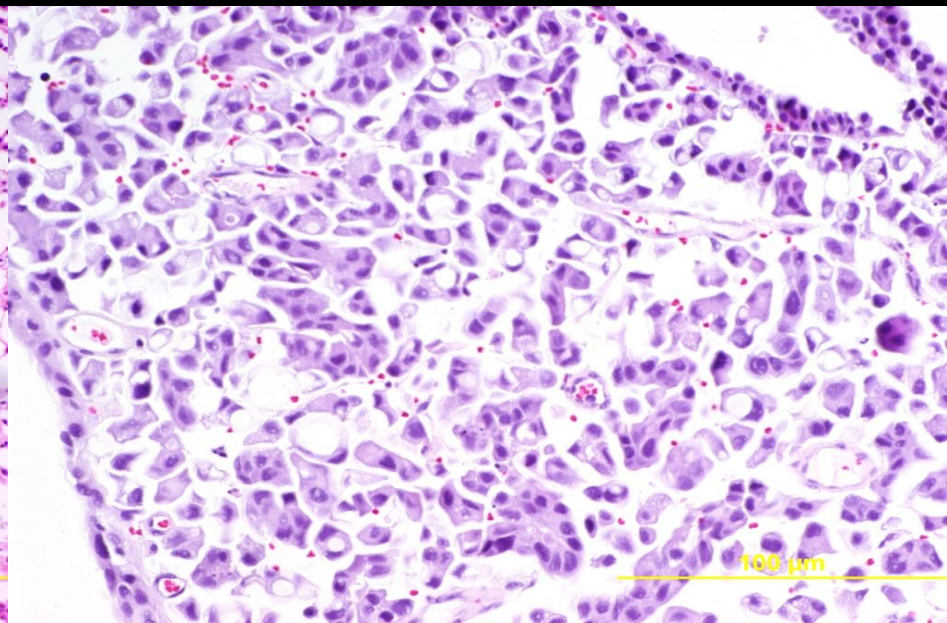
Back to back lacunae



Epithelial rings, back to back lacunae



Cytoplasmic vacuoles



Micropapillary Variant Reporting Recommendation

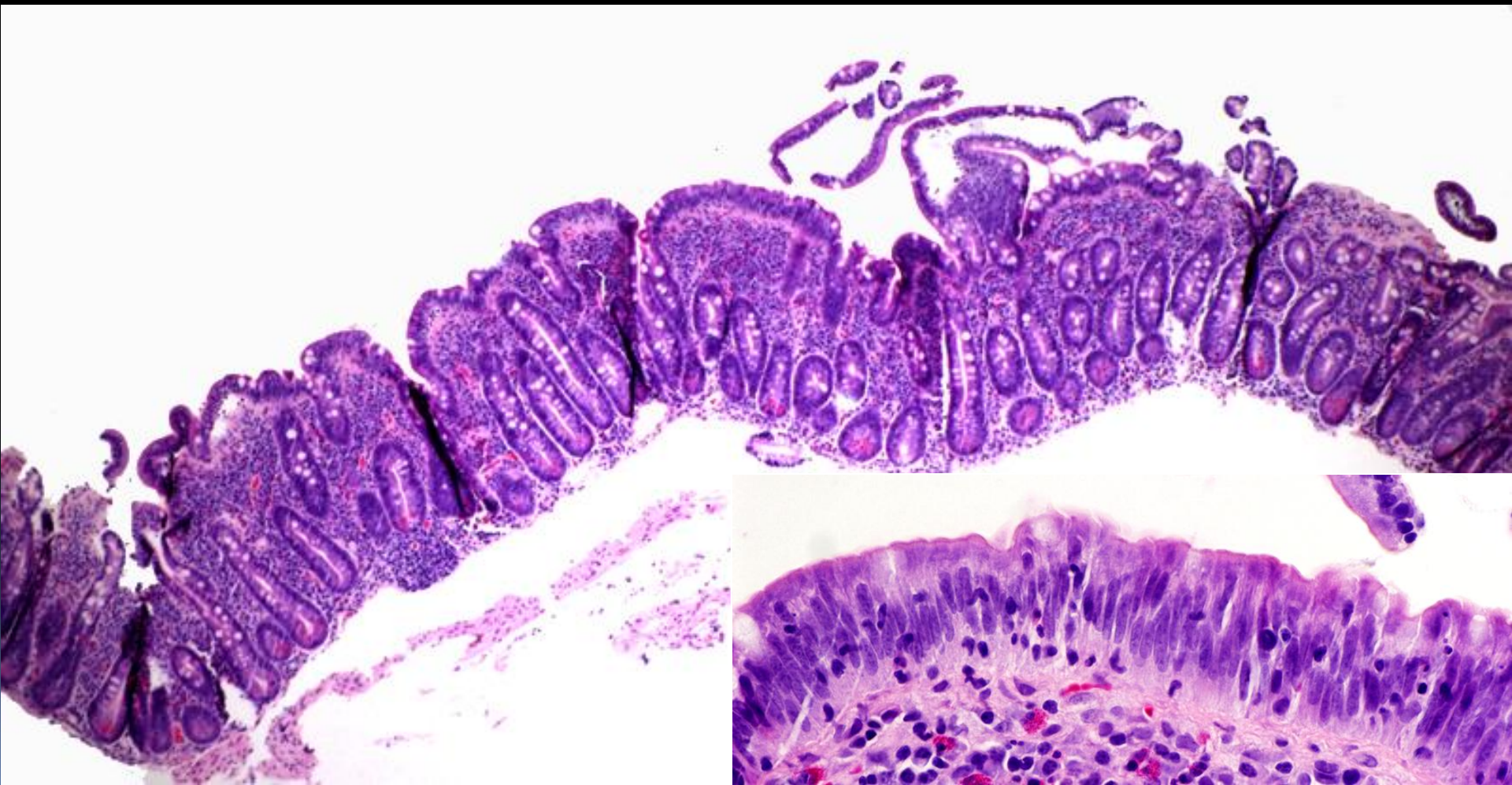
- Report presence of any micropapillary component, specify if it is non-invasive or invasive and give percentage
- Use restricted criteria for micropapillary variant (especially in T1 disease)

References

- WHO Classification of Tumors of the Urinary System and Male Genital Organs
- Perepletchikov and Parwani: Micropapillary urohtelial carcinoma: Clinic-pathologic review. Pathology-Research and Practice 205 (2009) 807-810
- Willis et al. : Micropapillary bladder cancer: Current treatment patterns and review of the literature. Urologic Oncology: Seminars and original investigations (2014)
- Lopes-Beltran et al. : Invasive micropapillary urothelial carcinoma of the bladder. Human Pathology, (2010), 41, 1159-1164
- Hansel et al.: A Contemporary Update on Pathology Standards for Bladder Cancer: Transurethral Resection and Radical Cystectomy Specimens, European Urology, 6 3 (2 0 1 3) 3 2 1 – 3 3 2

Case submitted by Dr. Tom Arnason
Capital District Health Authority / Dalhousie University

68 year old male with diarrhea (duodenal biopsy)



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History:

ID: 68 y.o male

HPI:

- 5 weeks of diarrhea (3-8 loose BMs/day)
- Vomiting with most meals
- 20 lb weight loss
- Previously 1 BM/day
- No fevers, no travel

PMHx: Aortic valve repair, kidney stones, HTN

Meds: Olmesartan (ARB for HTN – taking it for years)

SocHx: Retired accountant, no ETOH/drugs/smoking

Presentation:

- Presents this history to family doctor
- B/W done – Creatinine 474 (normal 54-113)
- Sent to ER
- Admitted to MTU (for acute kidney injury, presumed due to dehydration)
- GI consulted
- EGD done in hospital

Duodenum