

Prípad SD IAP č. 860

B. Rychlý
Unilabs Bratislava



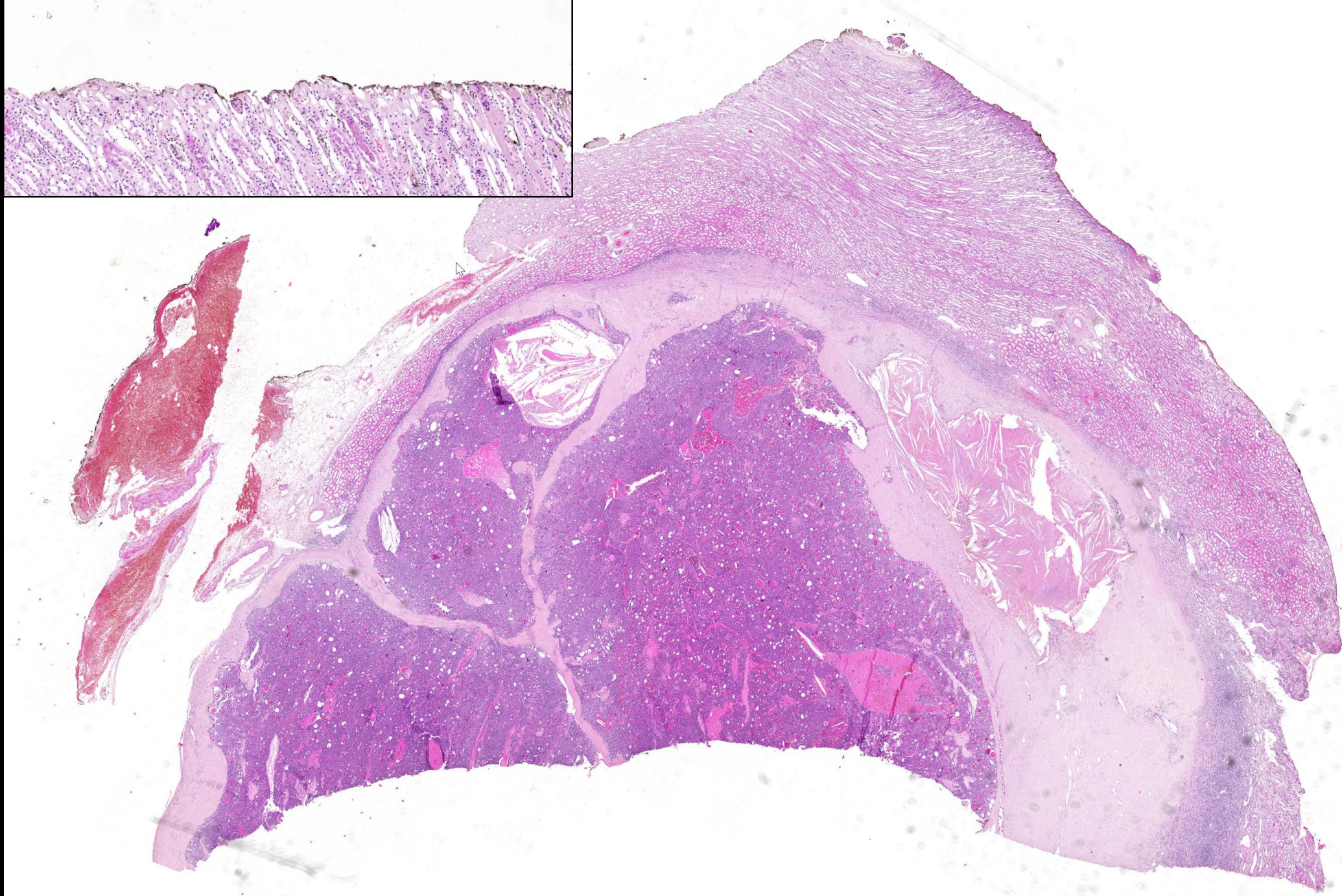
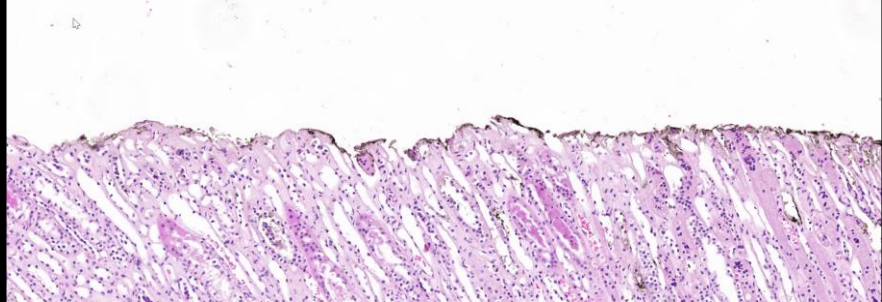
Klinické údaje

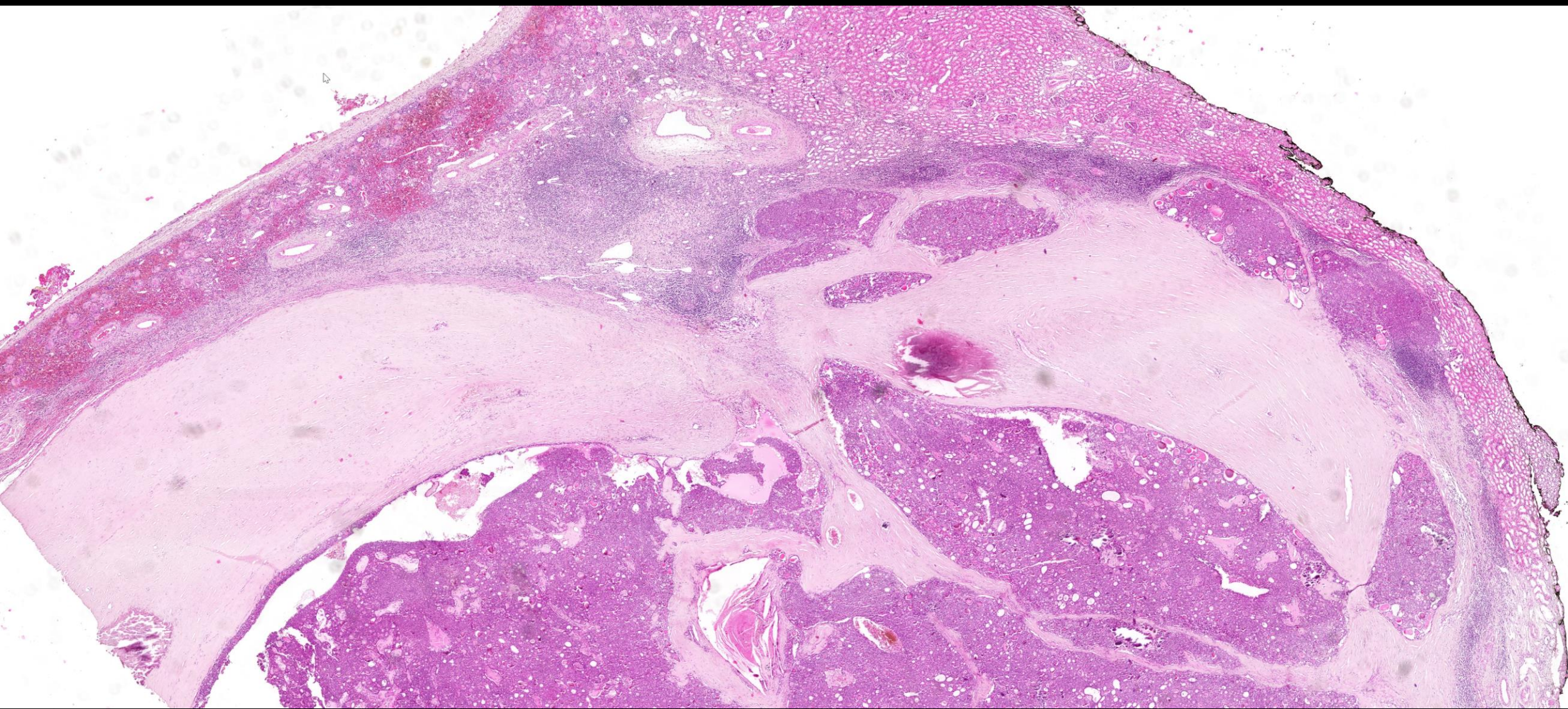
- 11-ročný chlapec
- v 2016 vyšetrovaný po páde z bicykla
- zachytený cystický tumor (ev. cysta) obličky 2,5 cm
- parciálna resekcia
- po základných IHC suponovaný thyroid follicular carcinoma-like renálny karcinóm
- po konzultáciách na dvoch ďalších zahraničných pracoviskách nález uzavretý len ako LG karcinóm obličky NOS
- archívny materiál znovu otvorený v 2024
- doplnené FISH na TFE3 a TFEB boli negatívne
- z nových IHC: SDHB a FH pozit., ALK a BRAF negat.
- posledný follow-up bol po 4 rokoch, bez známkov recidívy či MTS
- *posledný follow-up bol v 1/2024, bez známkov recidívy či MTS*

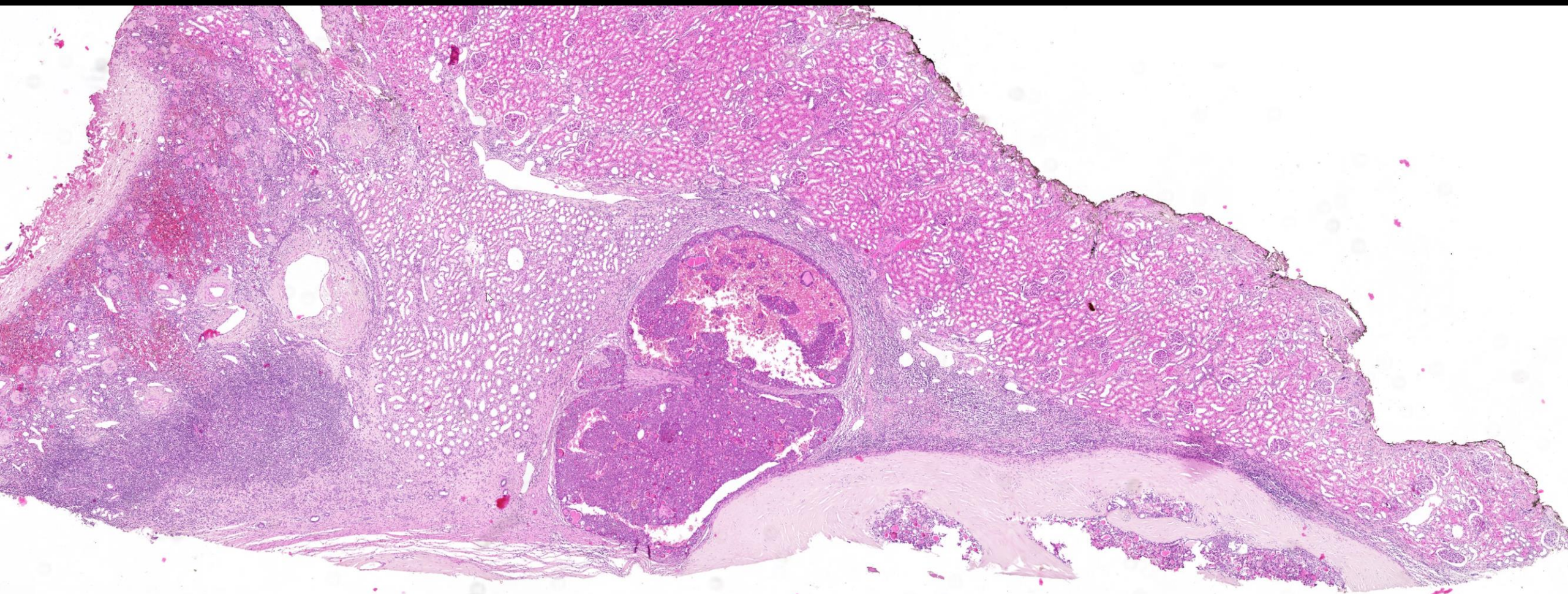
CT

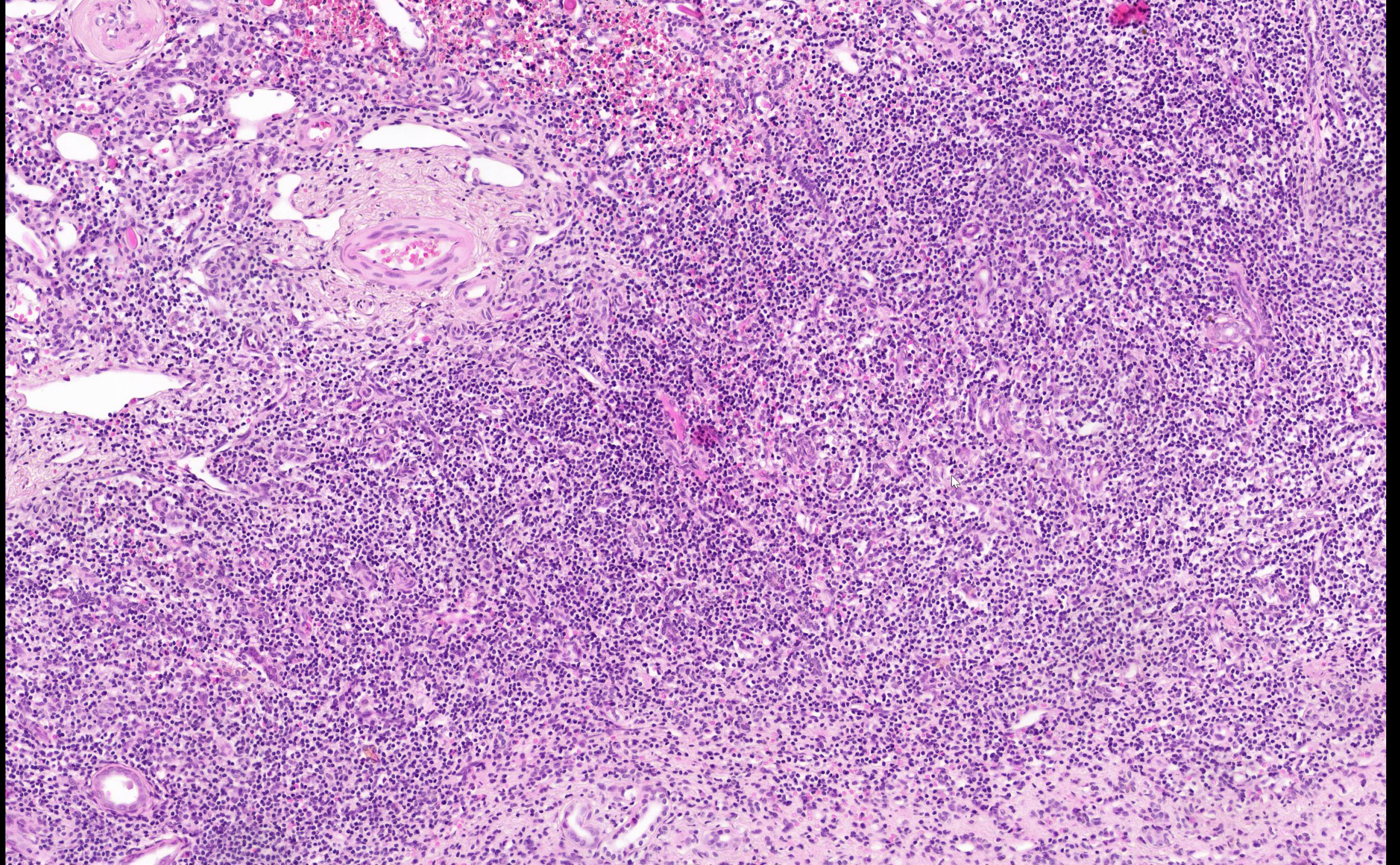


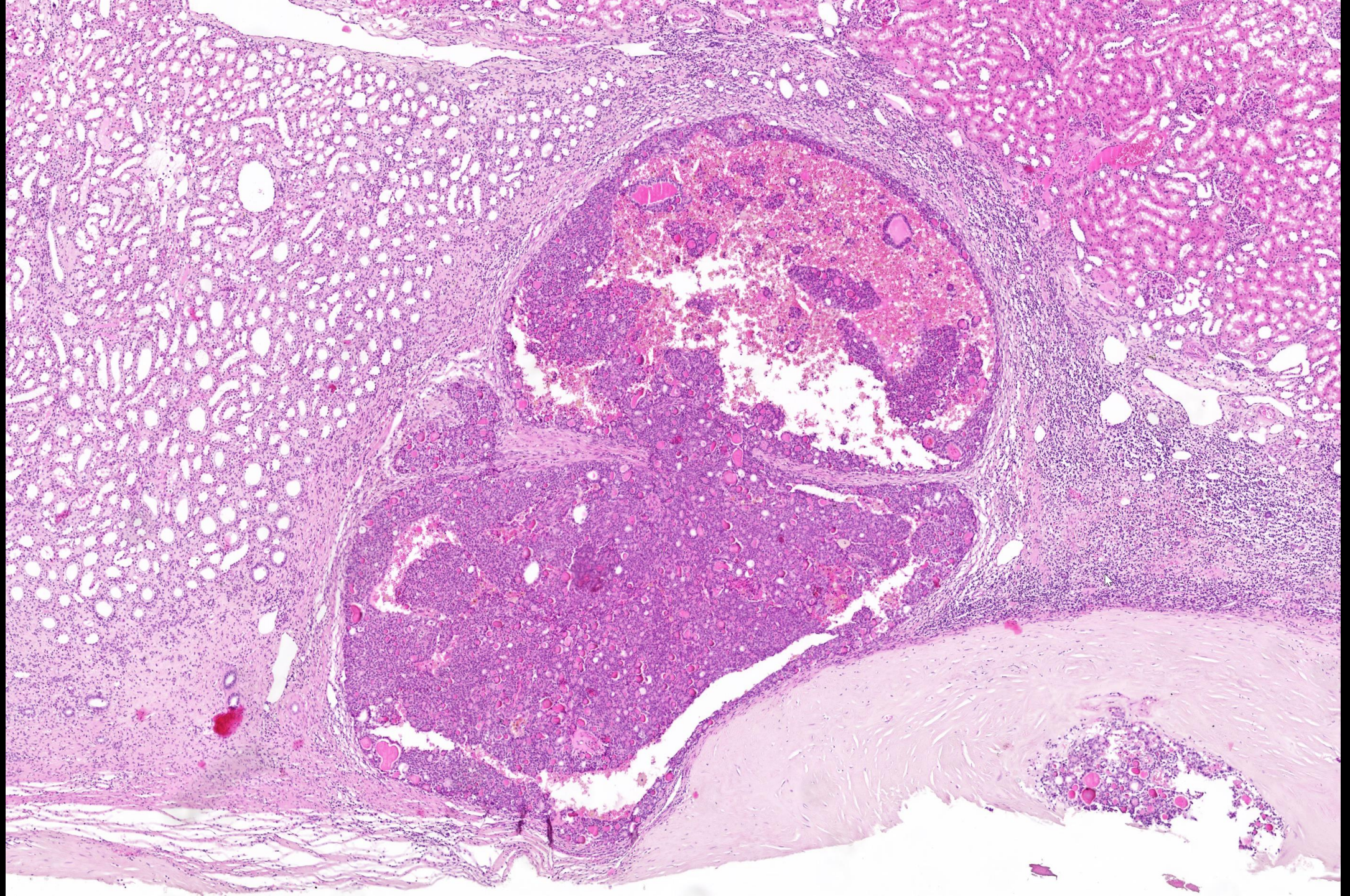
- ostro ohraničené ložisko veľkosti 23x30x25 mm, s cystickou komponentou veľkosti 20x13x15 mm
- Bosniak III-IV

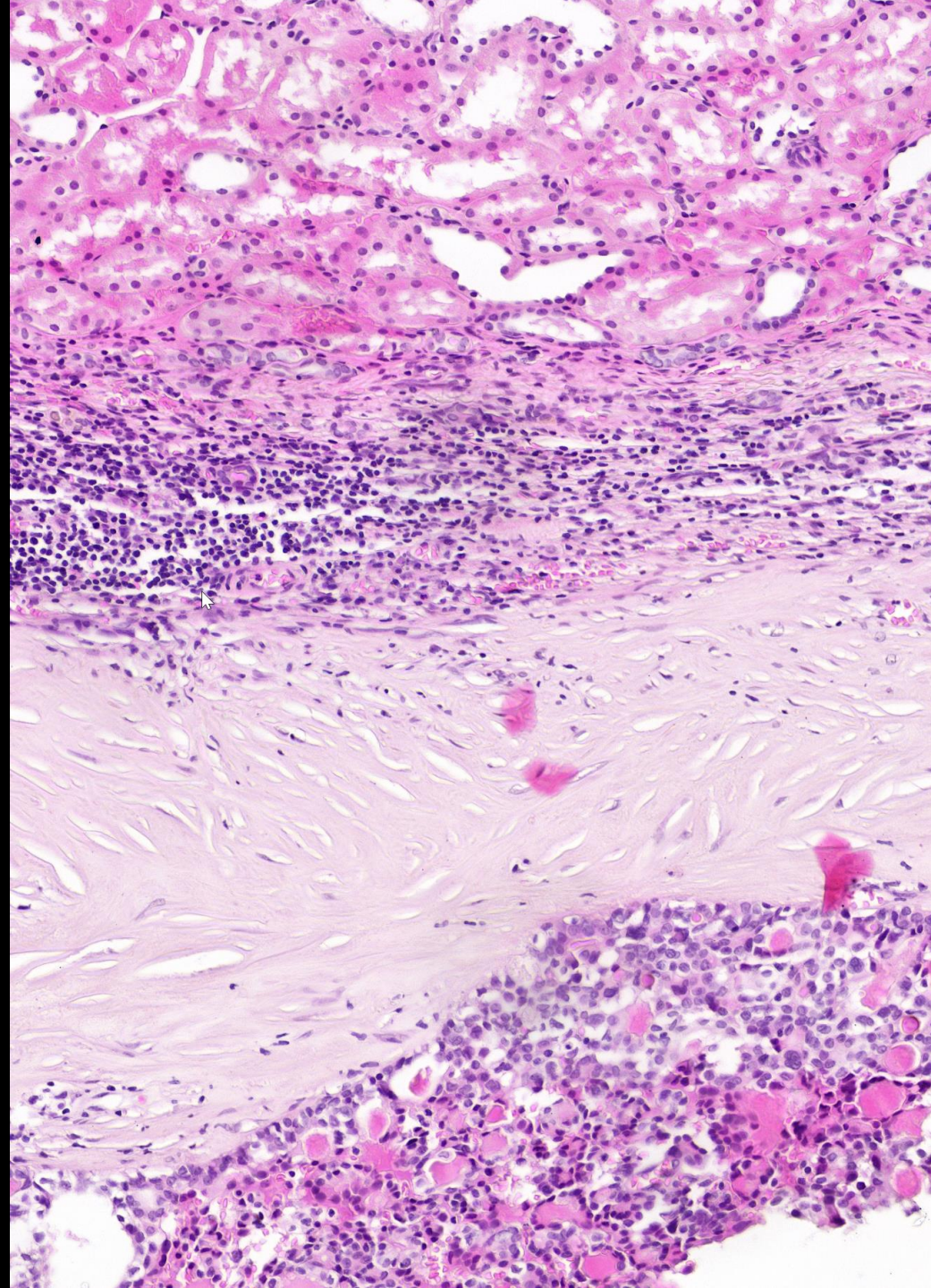
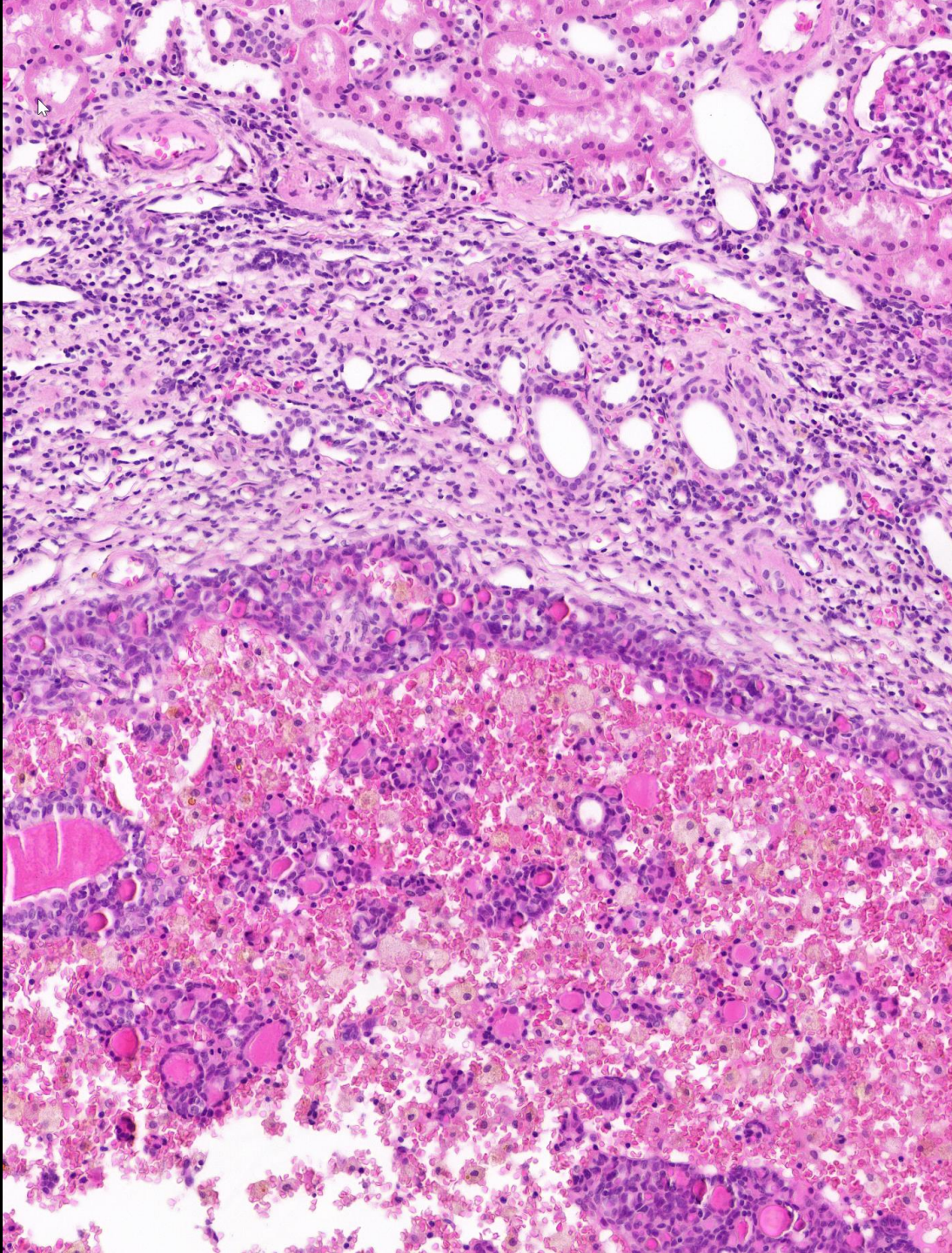


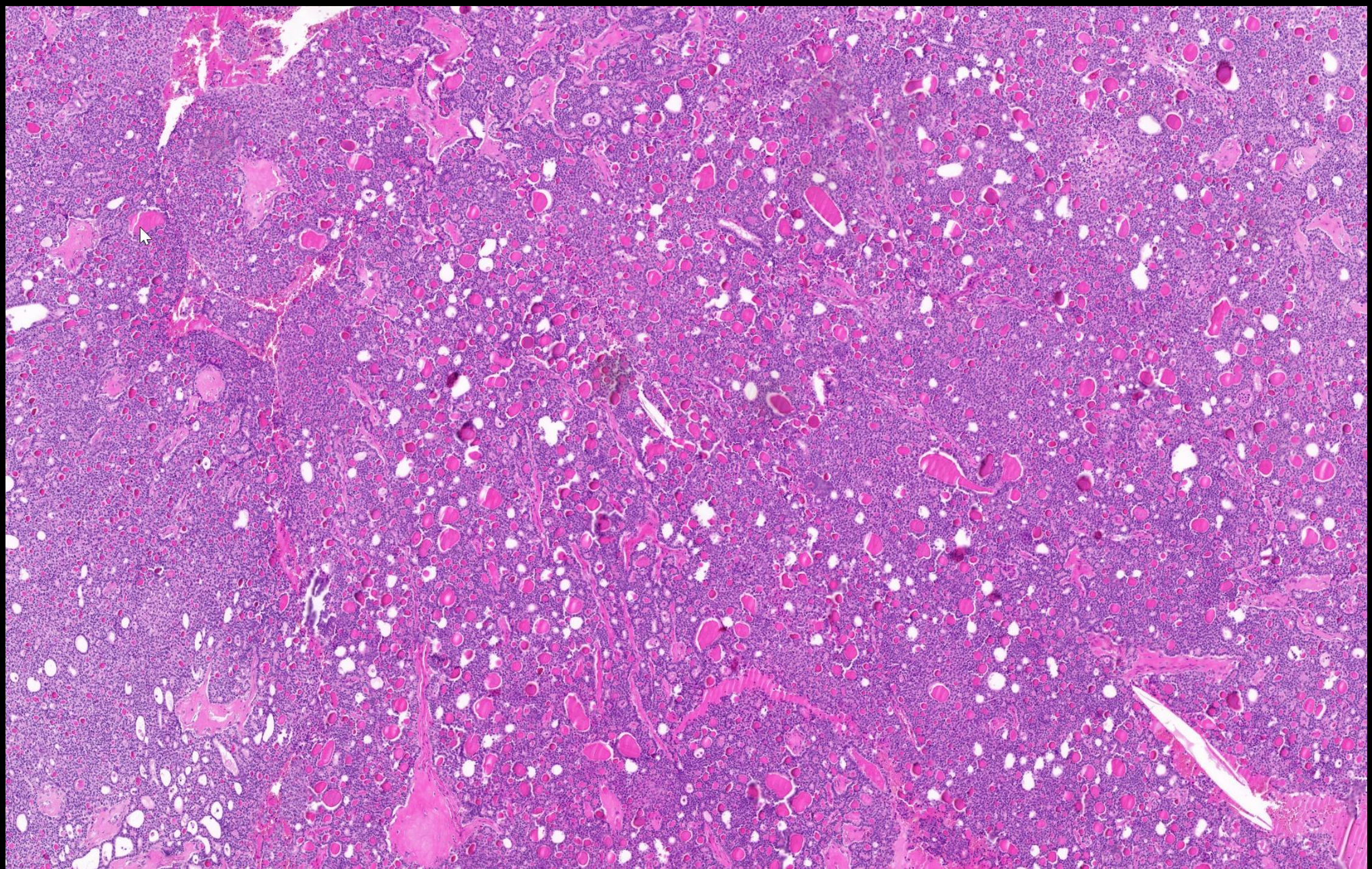


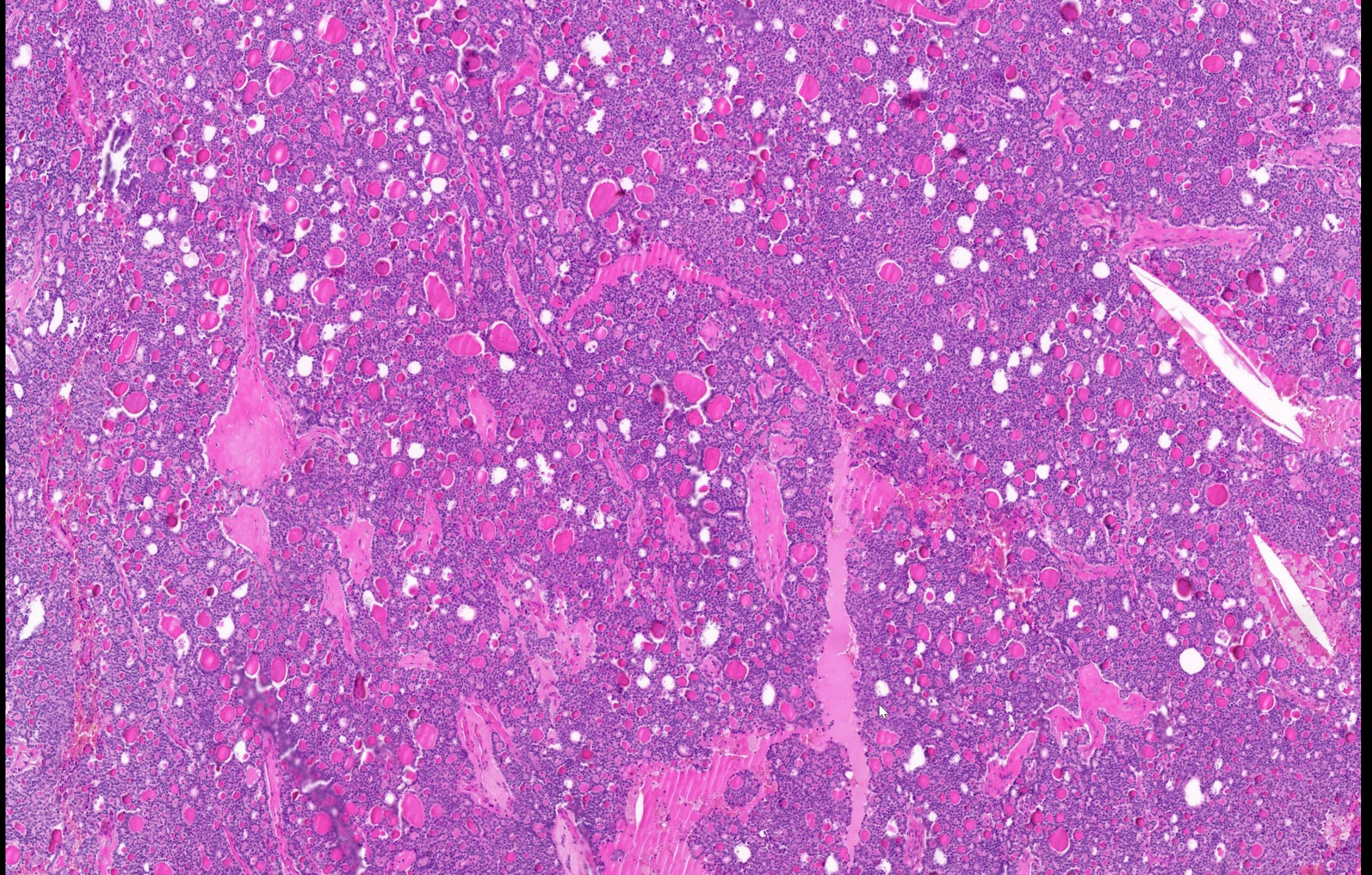


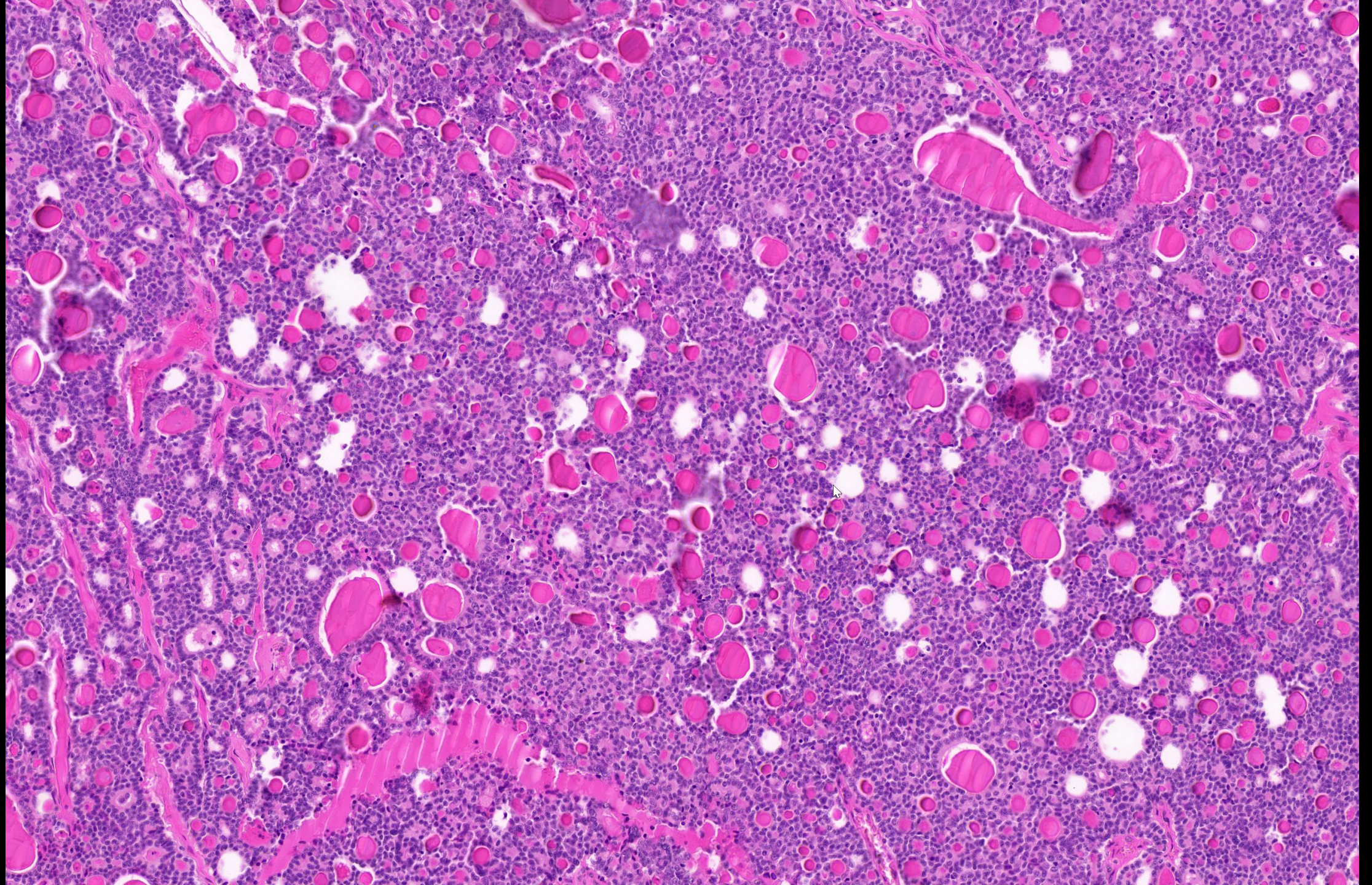


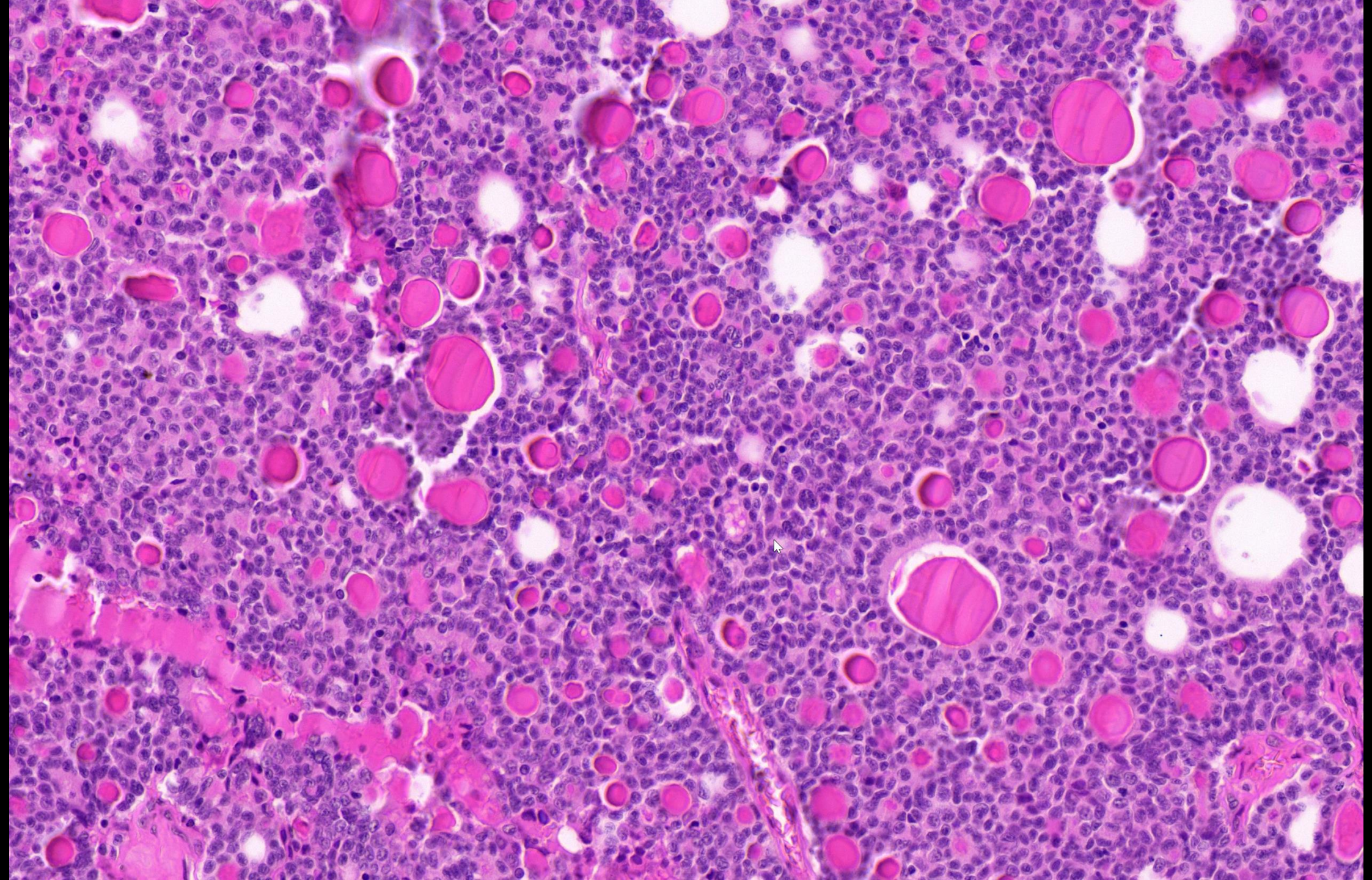


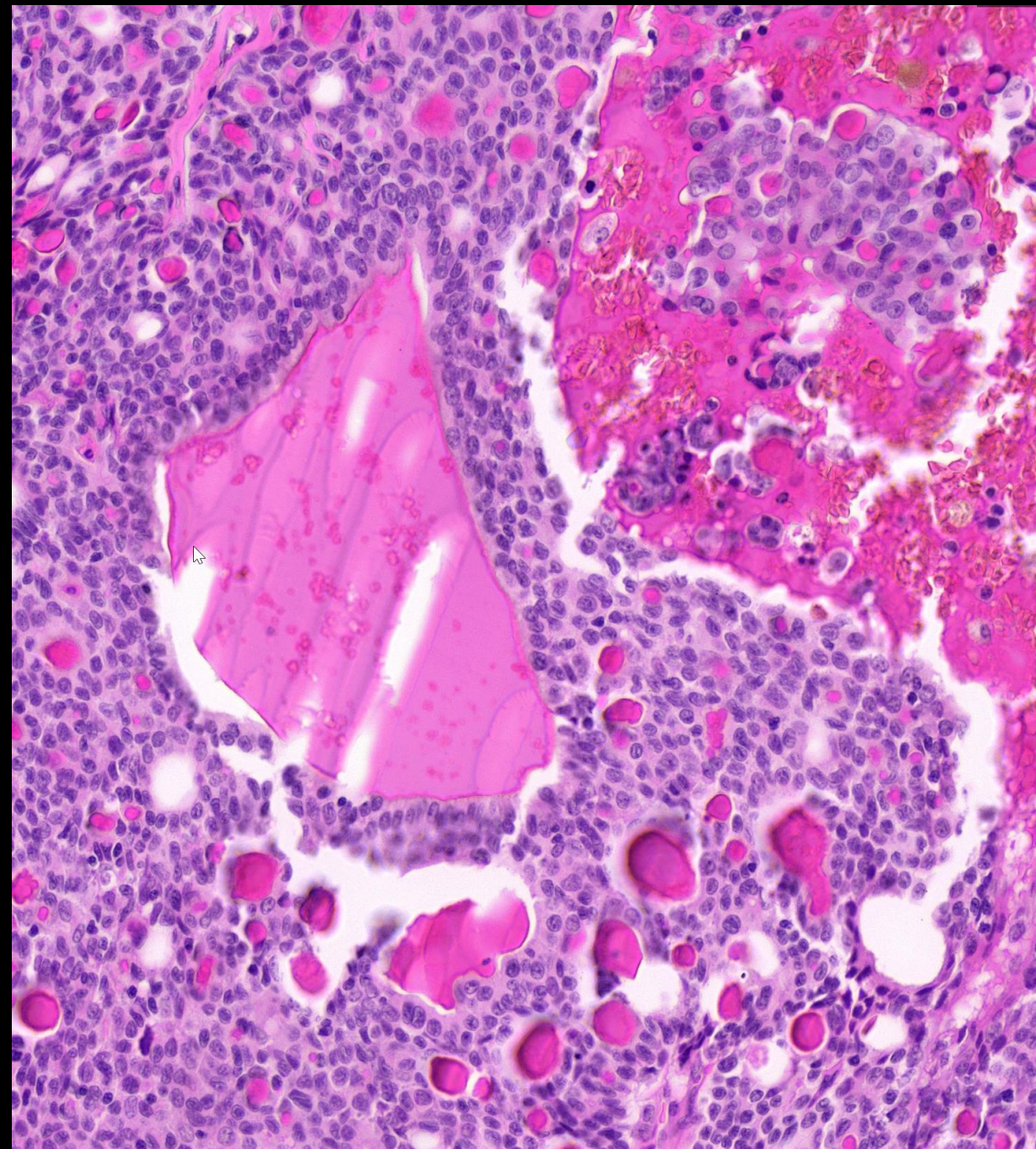
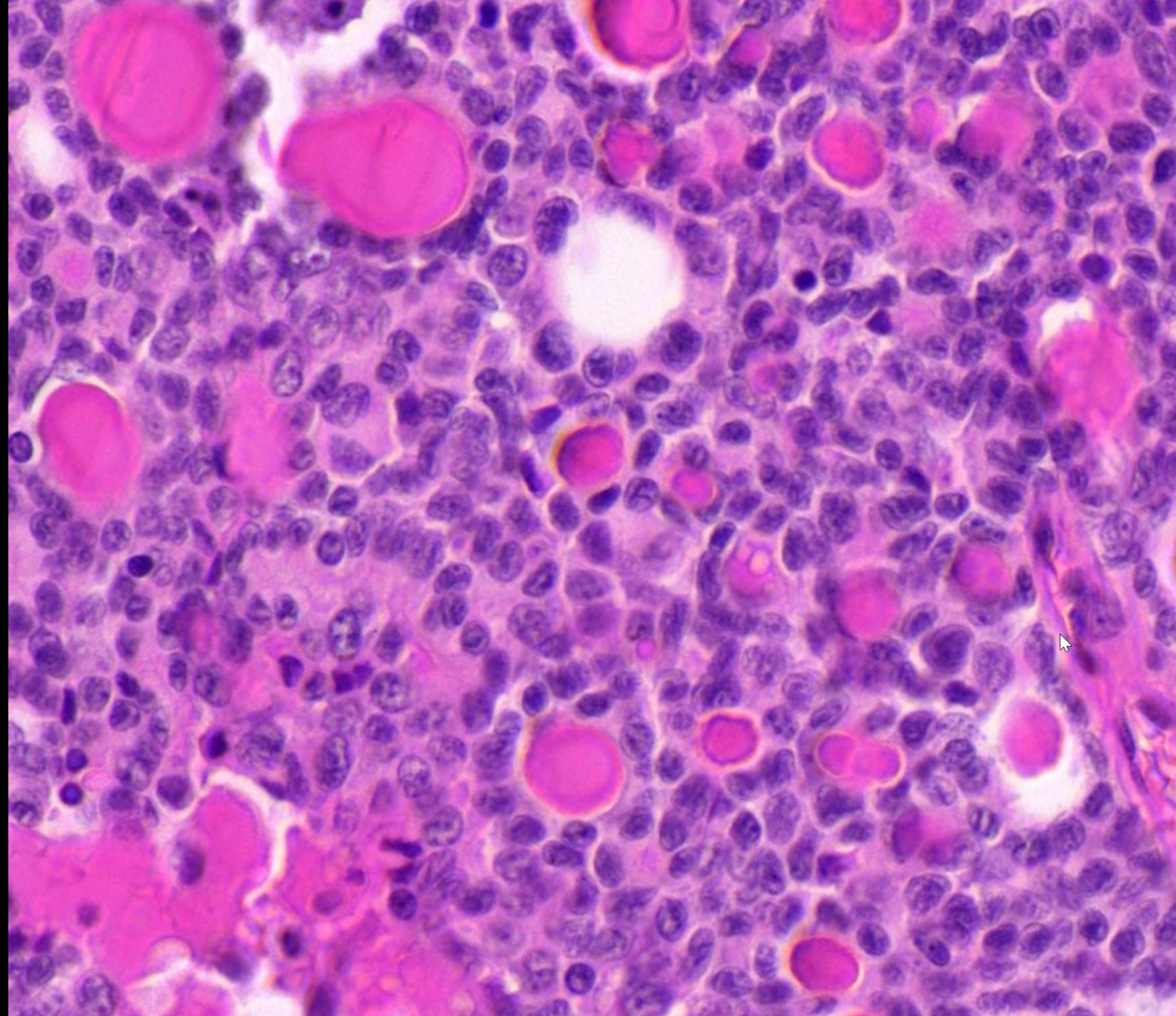


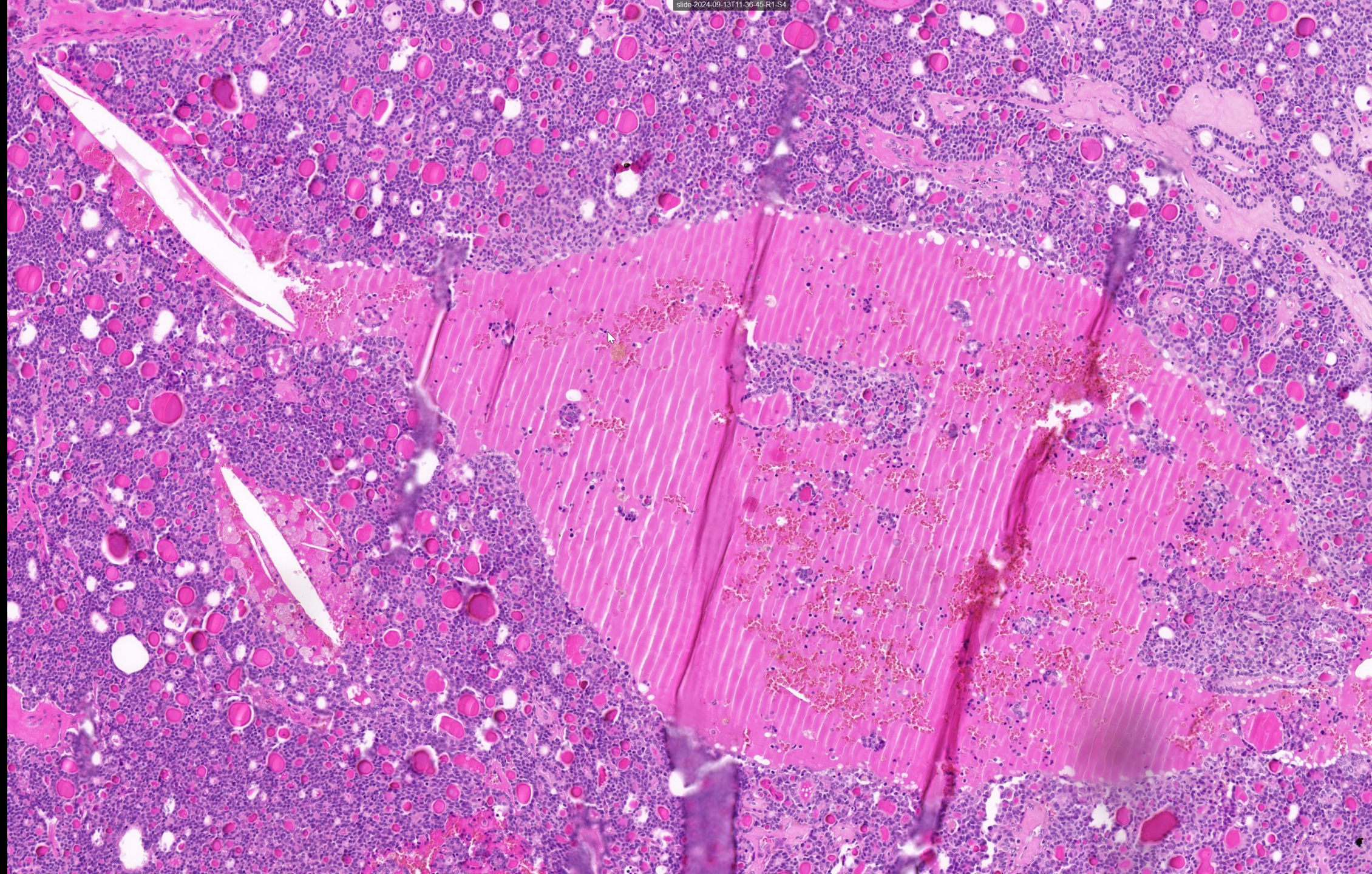


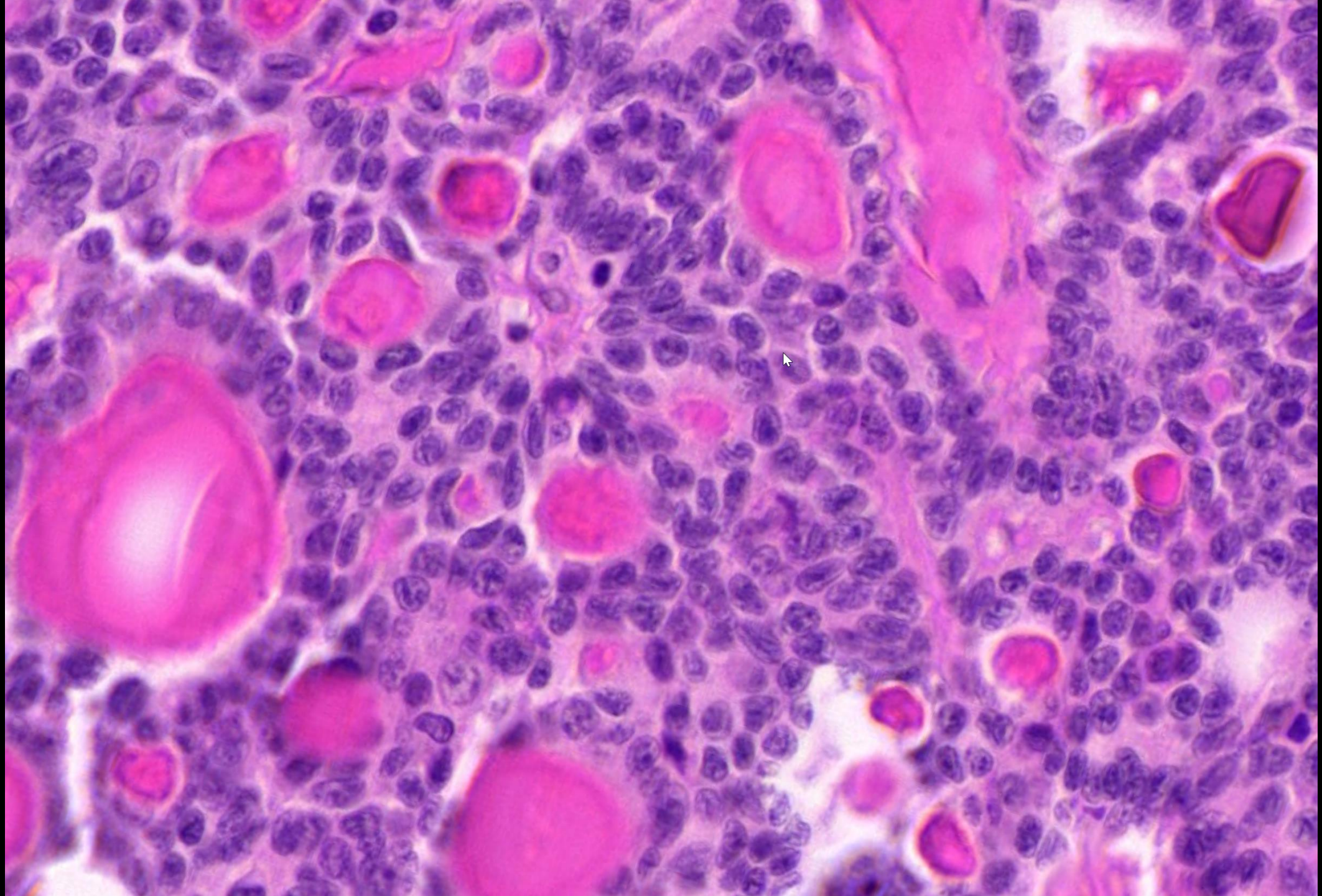


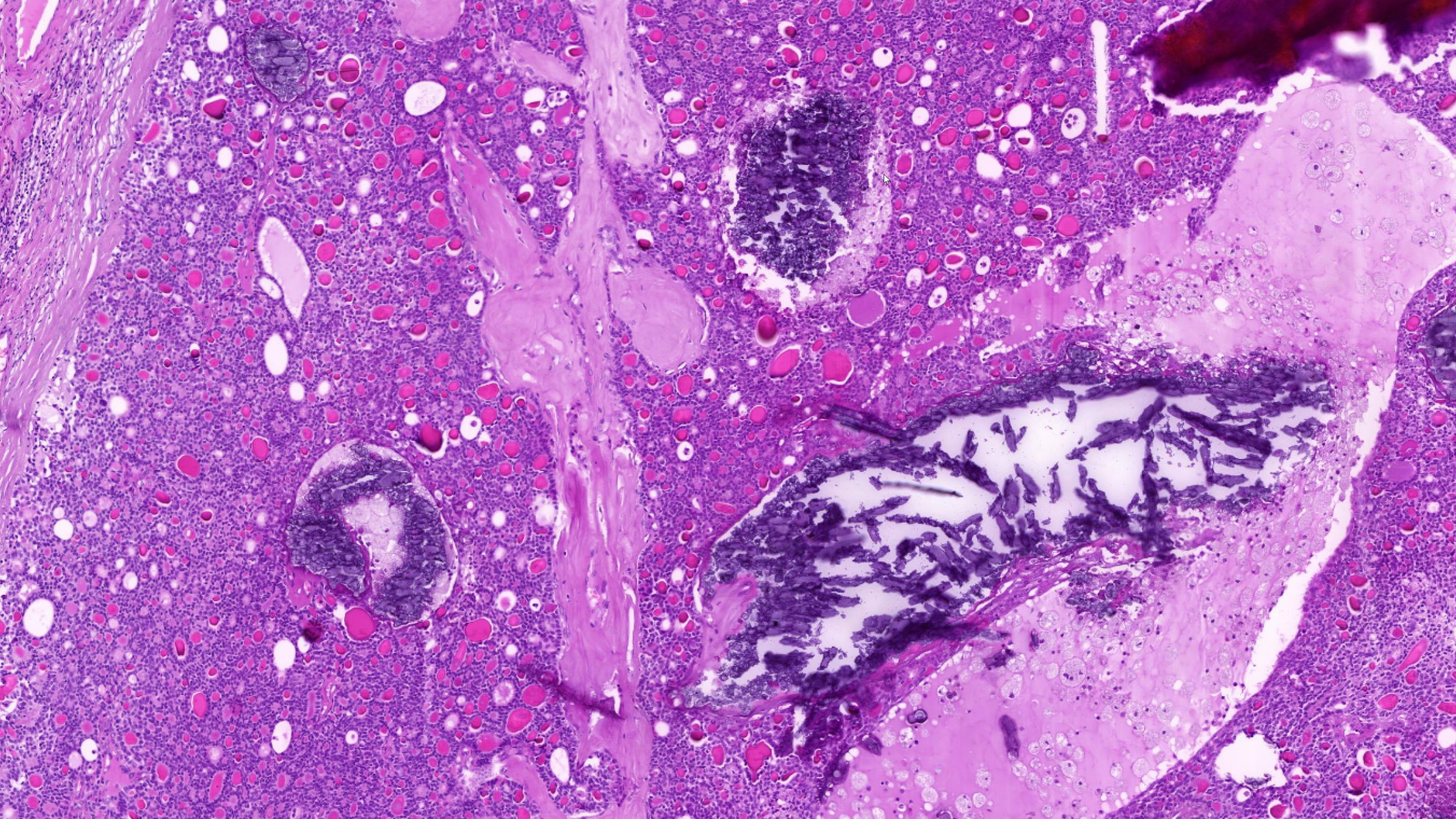


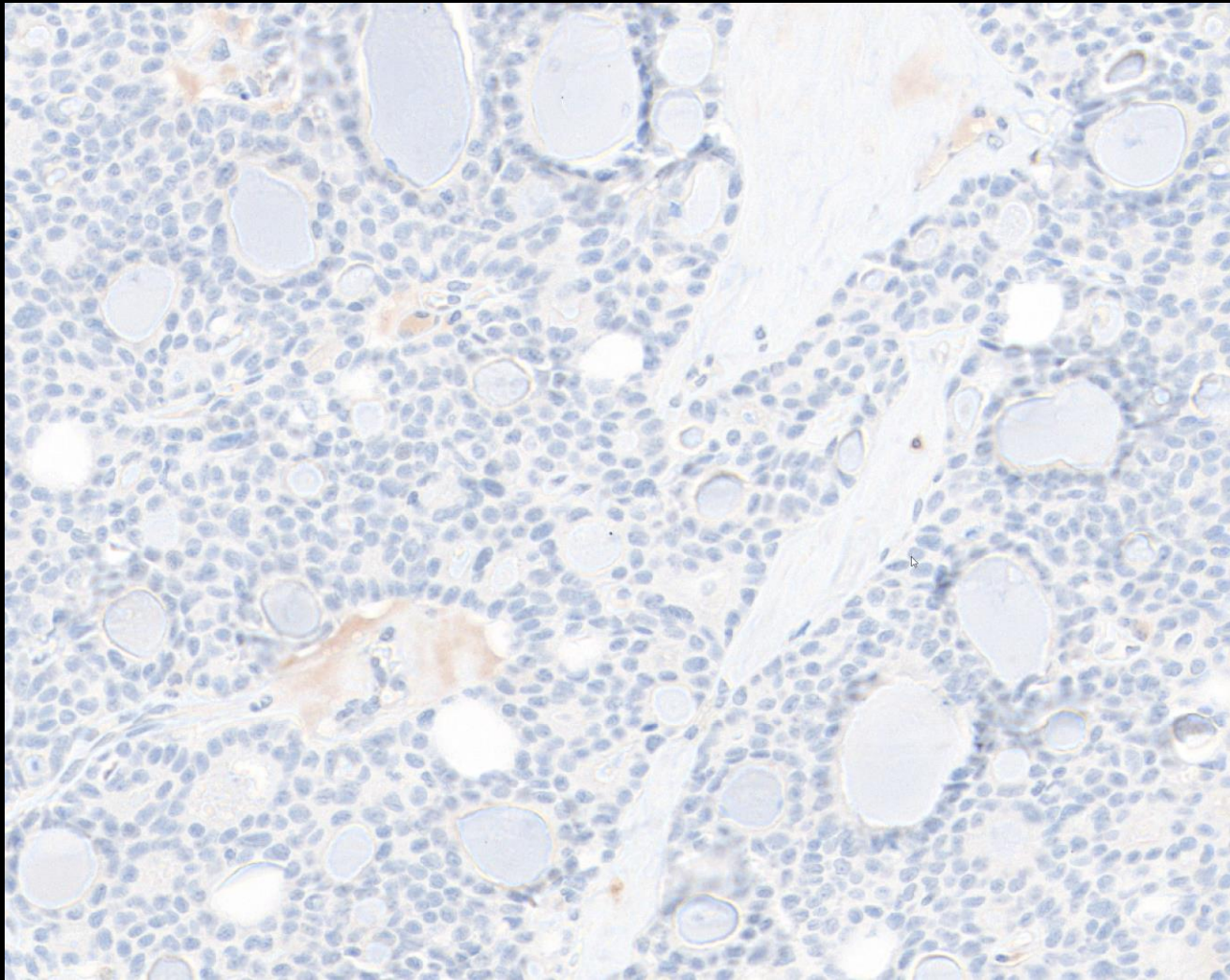




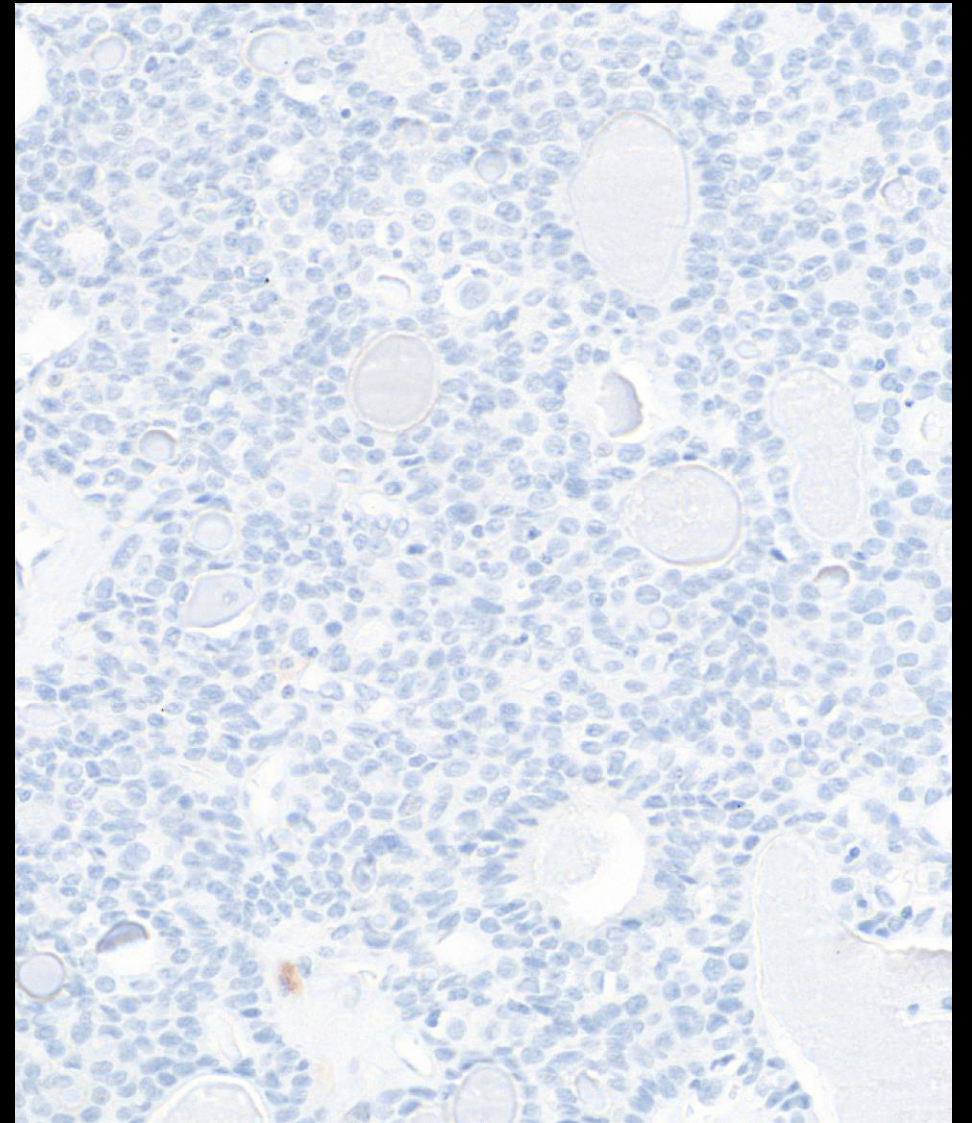




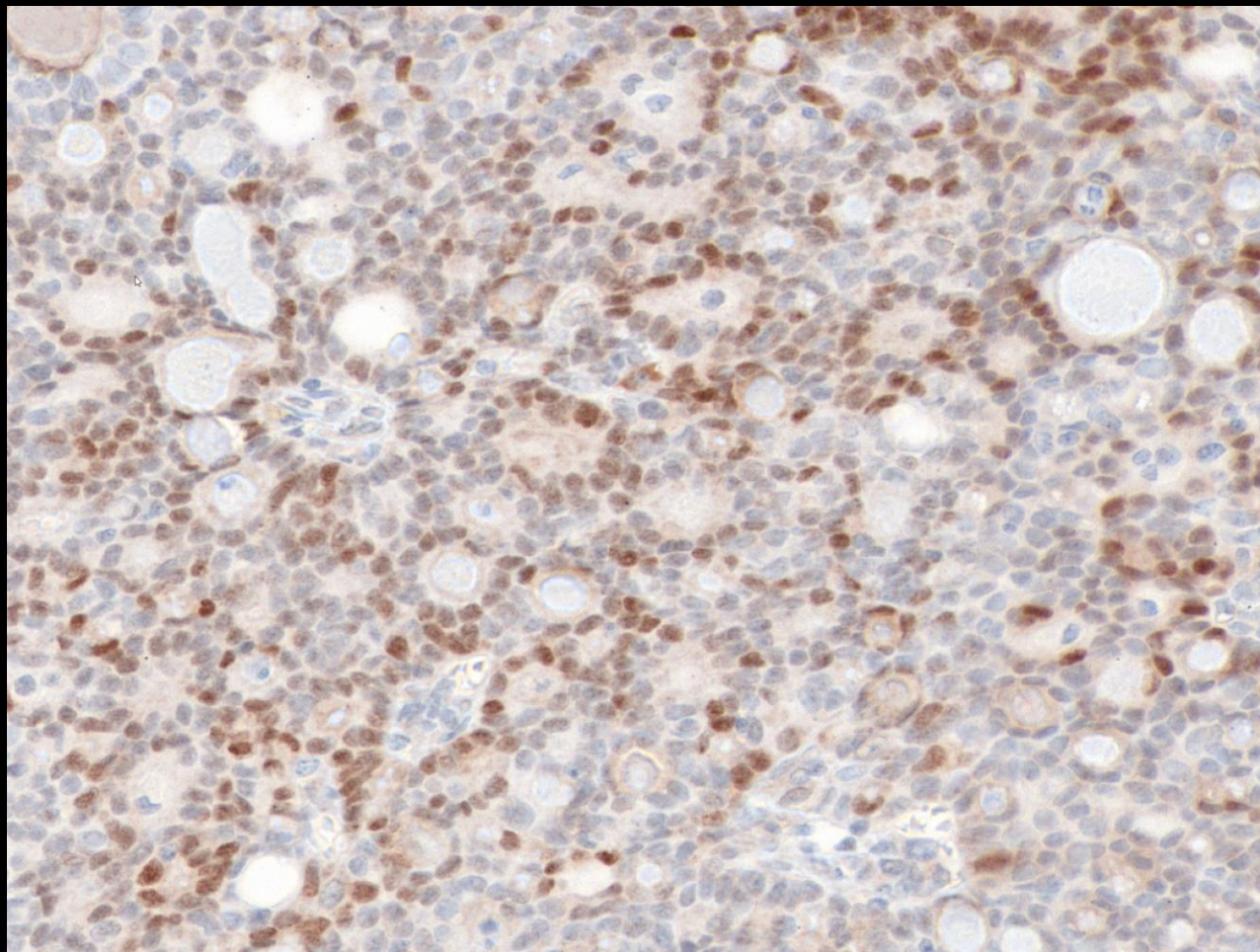




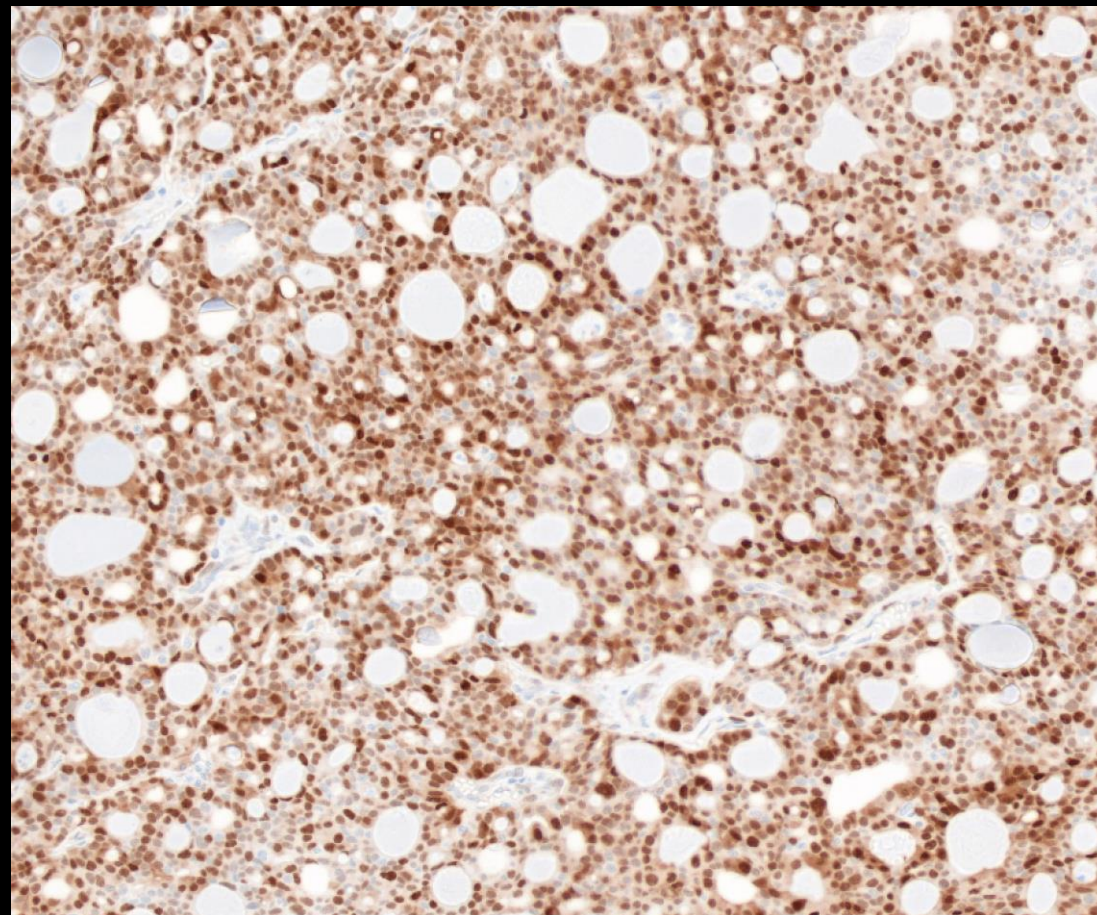
TTF1



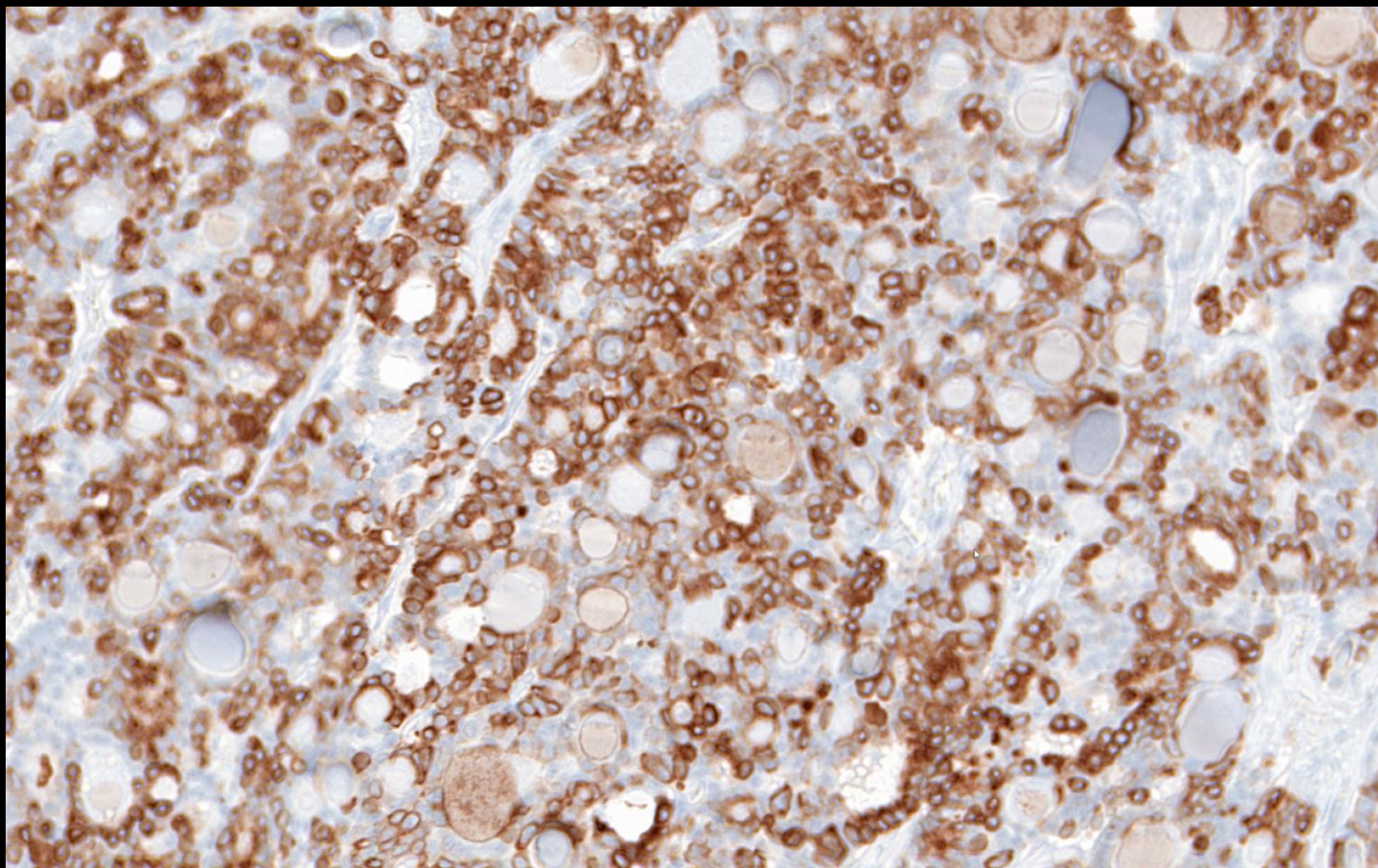
Tyreoglobulín



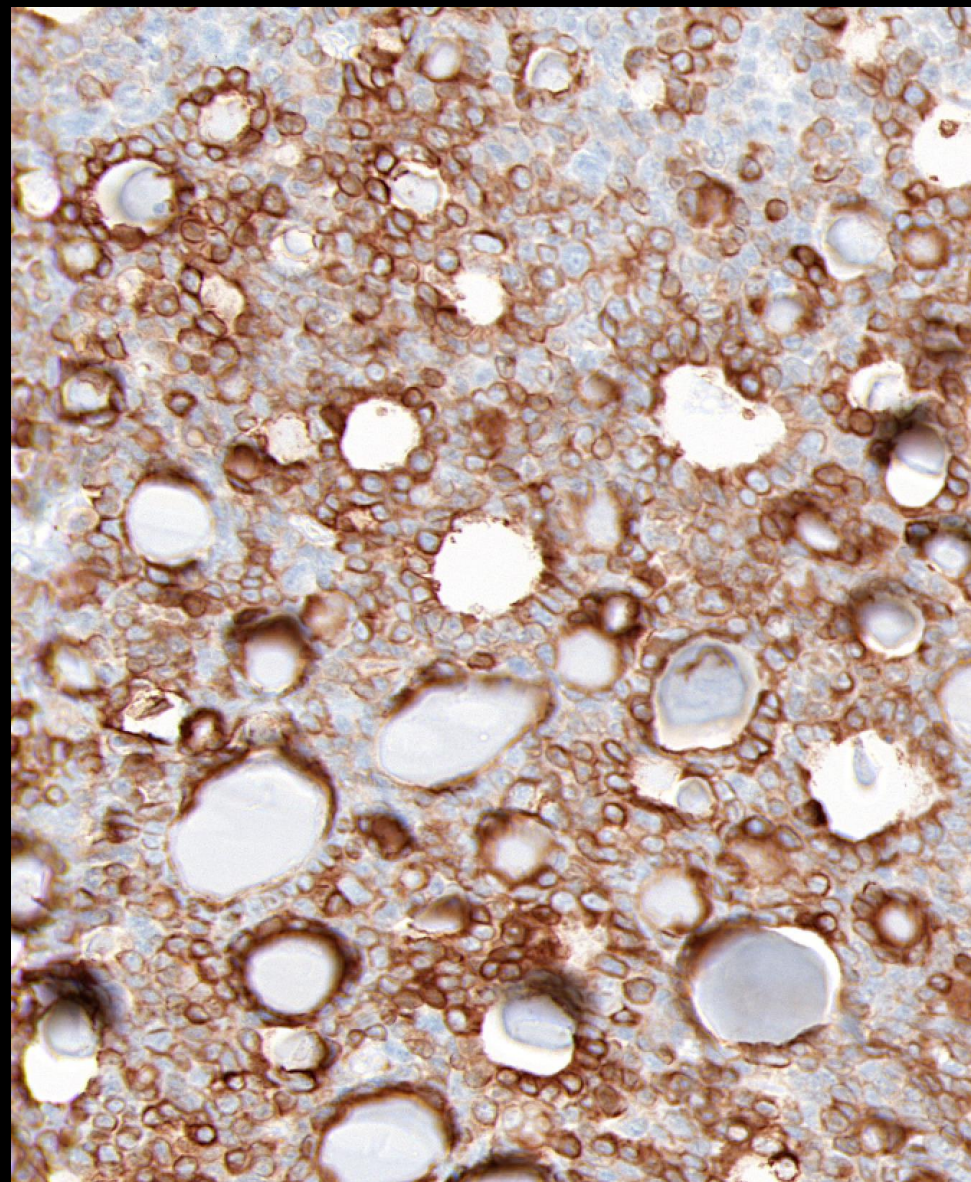
PAX8



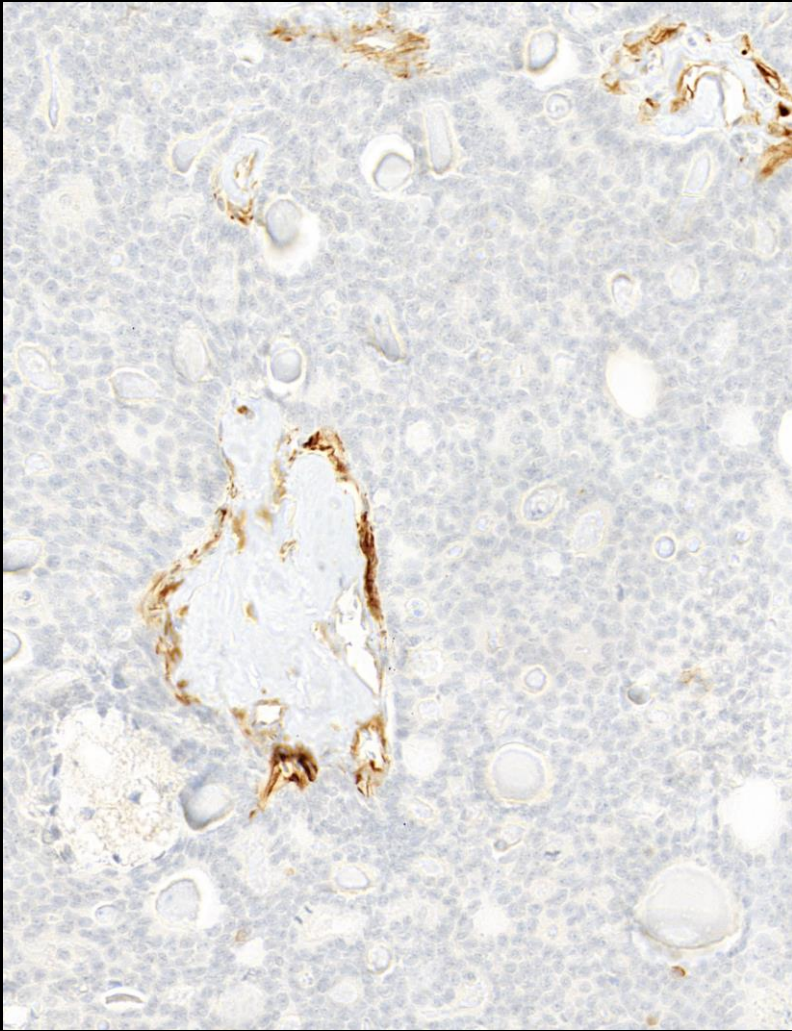
Cyklín D1



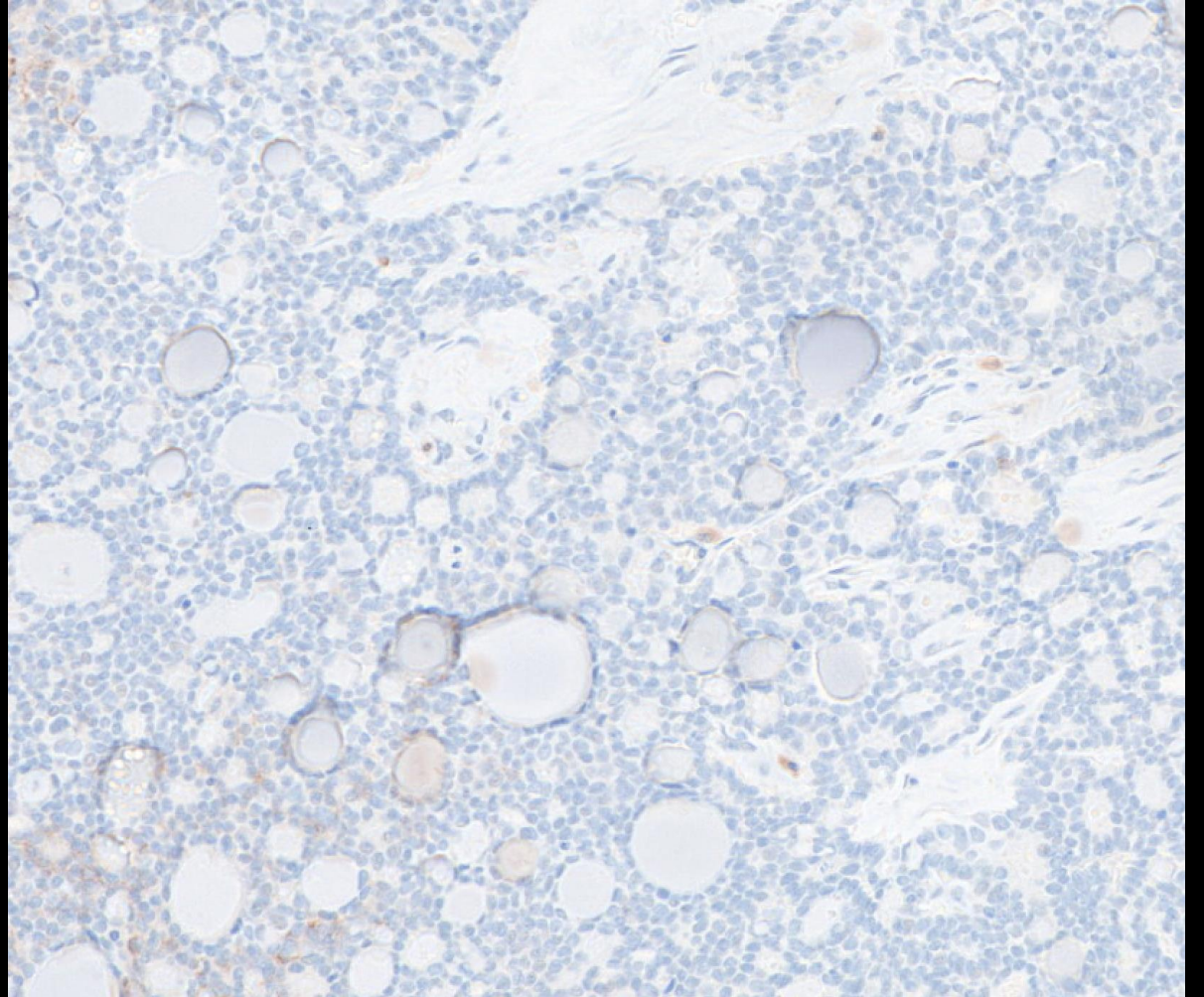
CK19



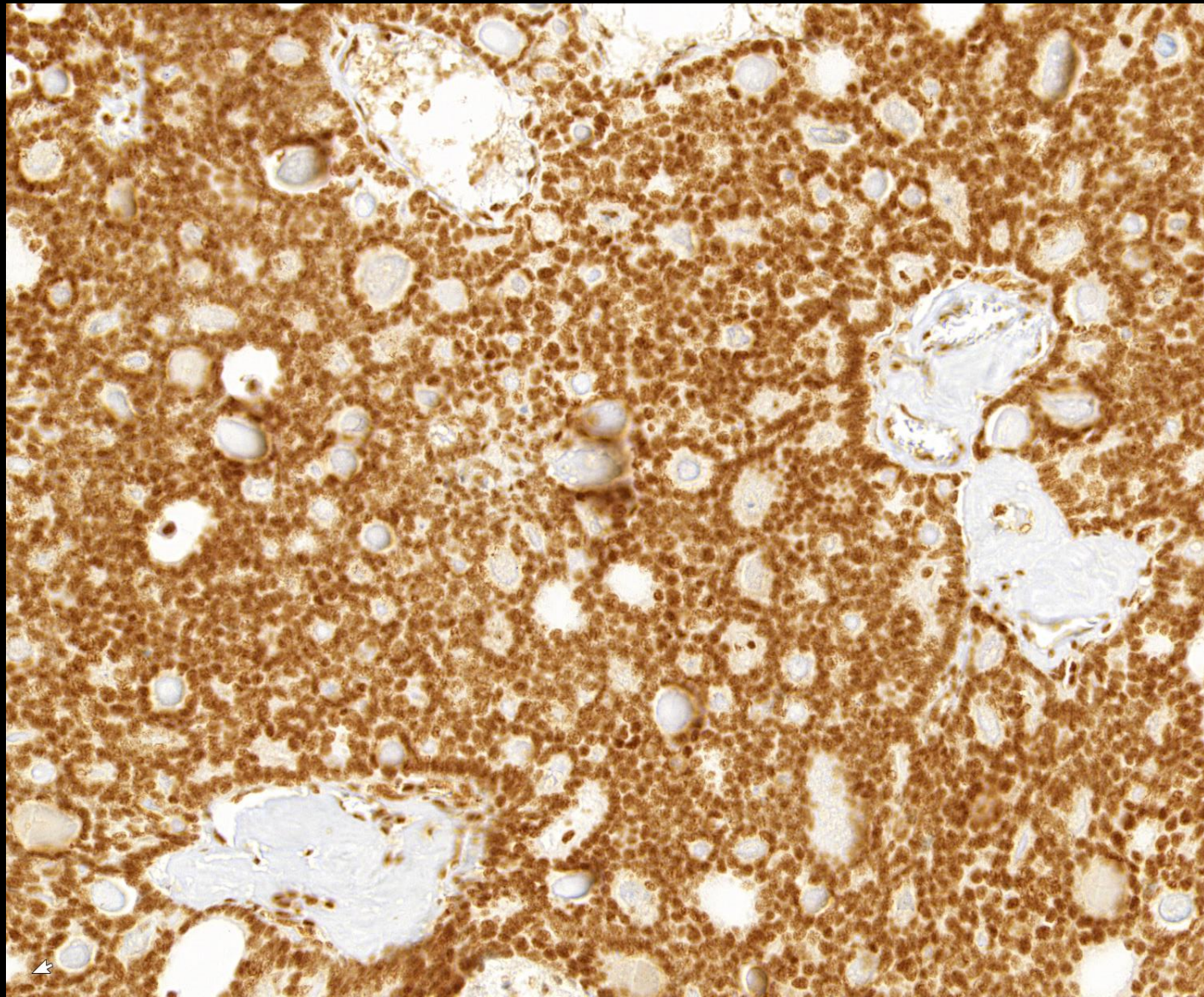
CK7



WT1



CAIX



INI1



dve konzultácie: LG karcinóm, NOS

Čas letel (8 rokov)

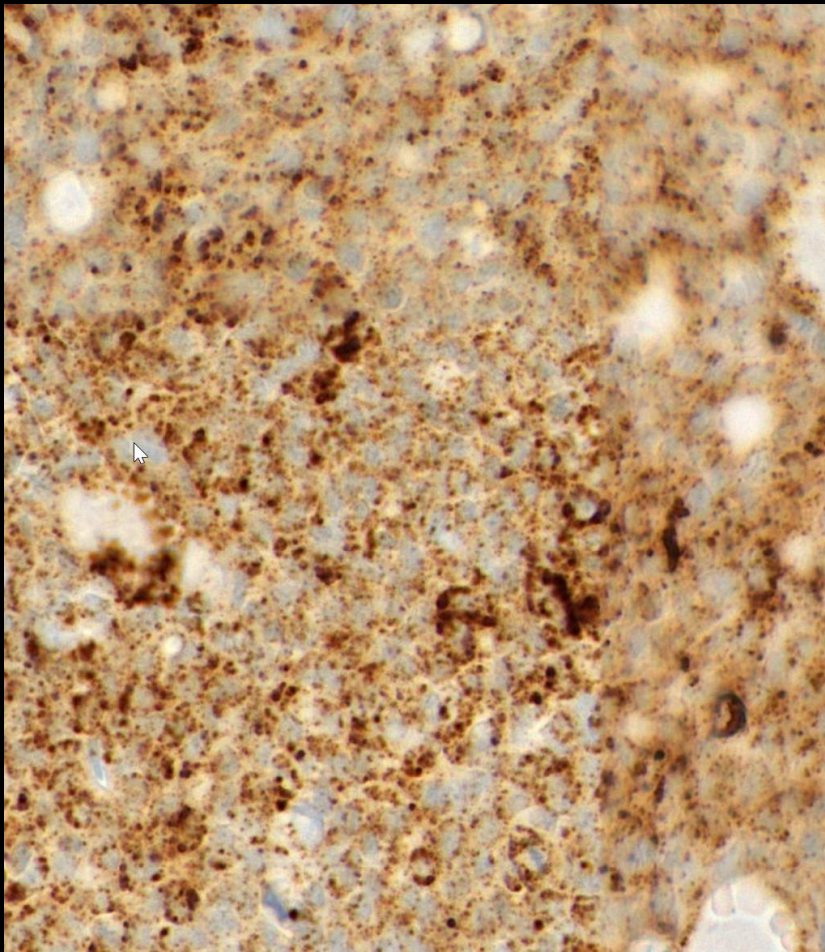


Pri poslednej kontrole v 1/2024
bez známkov recidívy či MTS

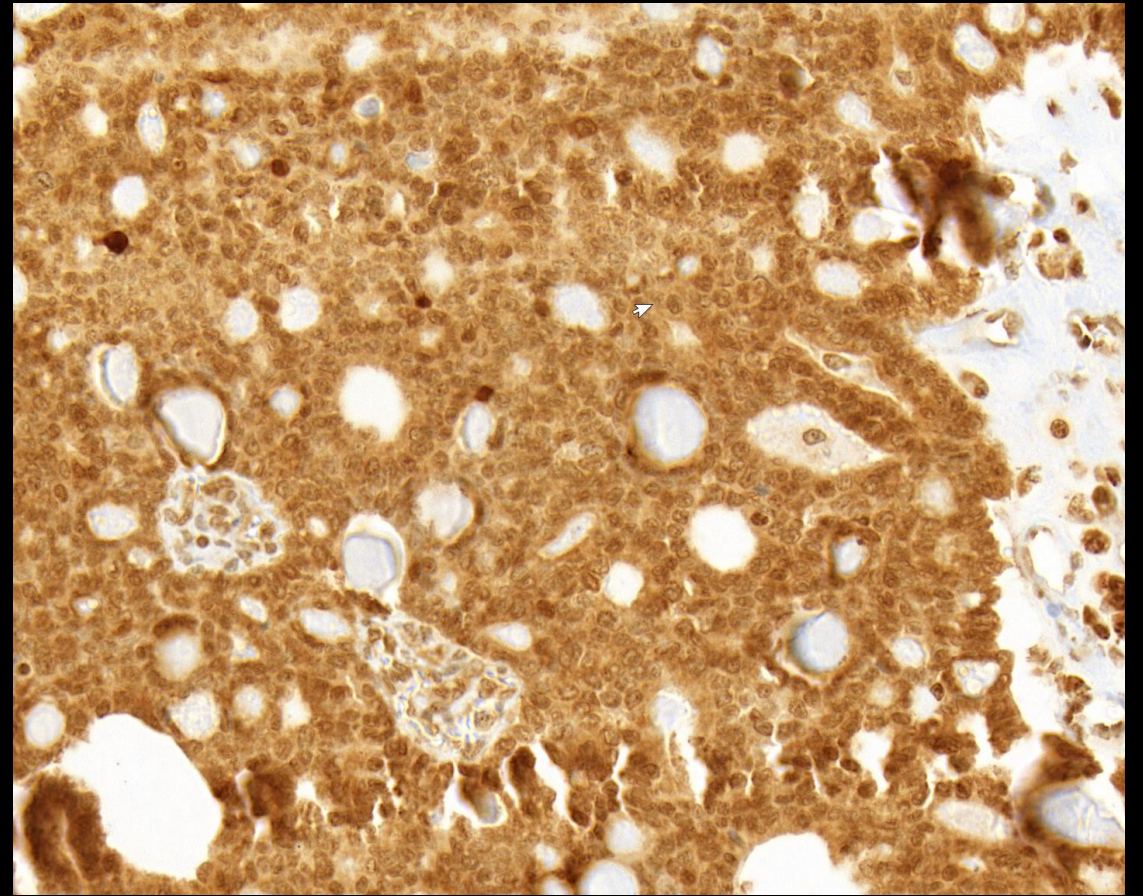


**6TH UROGENITAL
PATHOLOGY MEETING
IN THE CZECH REPUBLIC**

**13th-15th June 2024
Mikulov, South Moravia,
Czech Republic**

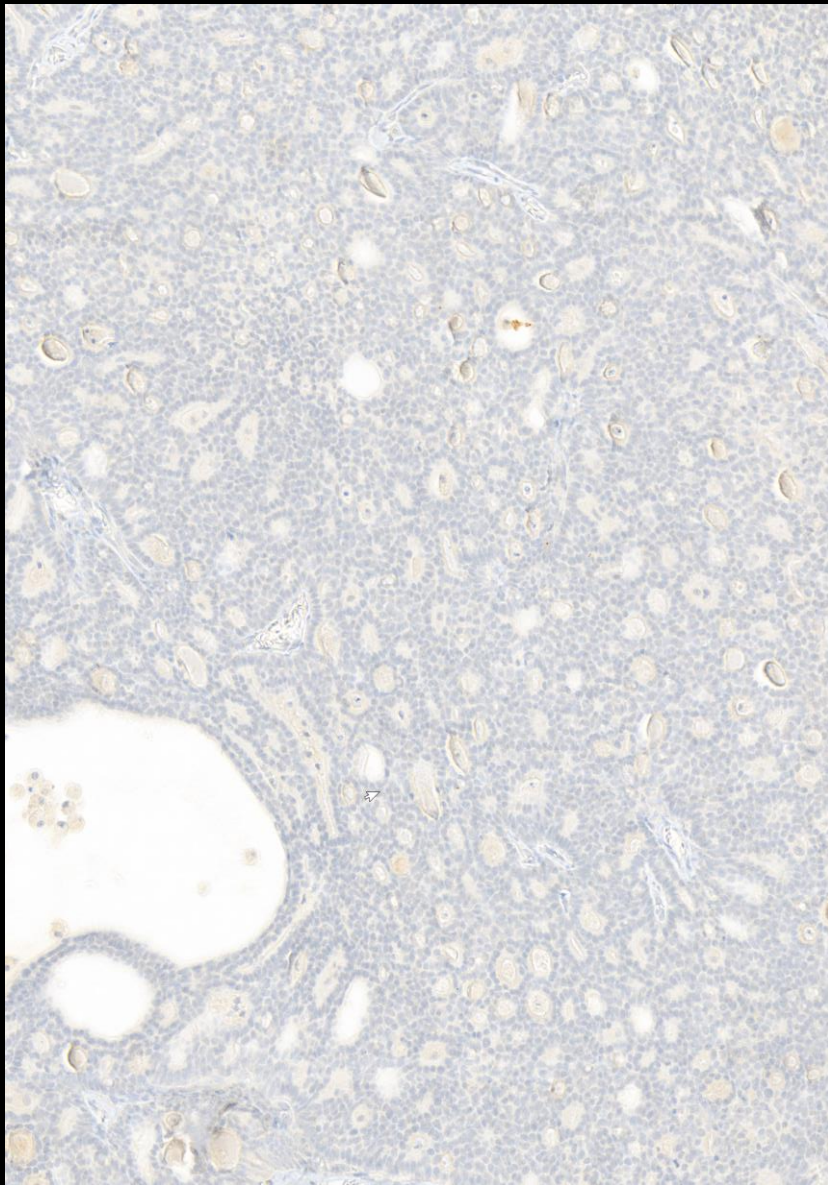


FH

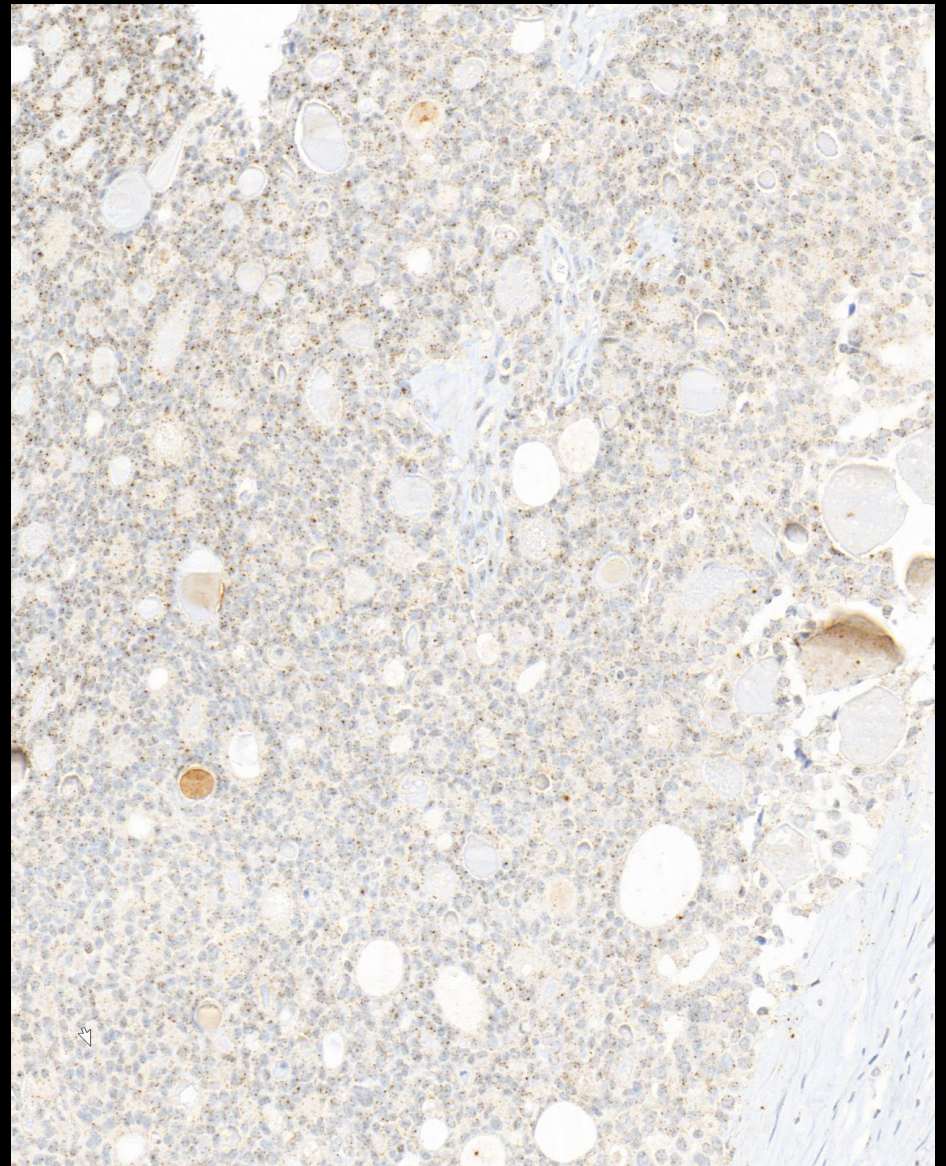


SDHB : (

- FISH na TFE3 a TFEB negat.
- IHC: SDHB a FH pozit., ALK a BRAF negat.



ALK



BRAF



... doc. MUDr. Kristýna Pivovarčíková, Ph.D.

- fúzny transkript EWSR1::PATZ1



Finálna diagnóza

Thyroid-Like Follicular Carcinoma obličky



WHO Urinary and Male Genital Tumours th. 2022

Renal cell tumours: Introduction

Table 2.02 Emerging renal tumours and their associated gene alterations

Proposed entity	Location in current WHO classification	Mutations identified	References
Thyroid-like follicular carcinoma	Not present	<i>EWSR1::PATZ1</i> fusions	{106}
Eosinophilic vacuolated tumour	Other oncocytic tumours	Somatic <i>TSC2</i> -inactivating mutations or <i>MTOR</i> -activating mutation	{3167,604}
Low-grade oncocytic tumour	Other oncocytic tumours	<i>MTOR</i> mutation	{3208}
Biphasic hyalinizing psammomatous renal cell carcinoma	Not present	<i>NF2</i> mutations	{185}
Papillary neoplasm with reverse polarity	Subtype of papillary renal cell carcinoma	Recurrent mutations of <i>KRAS</i>	{1666,3177}

Prvý popis

- Amin M, Bichal M, Radhakrishman A, Hes O, McKenney JK, Cheville JC. Primary thyroid-like follicular carcinoma of the kidney: a histologically distinctive primary renal epithelial tumor. *Mod Pathol*. 2004;17:136–7.

Angell SK, Pruthi R, Freiha FS. Primary thyroidlike carcinoma of the kidney. *Urology*. 1996;48:632-635.

- ale TTF a Thyreoglobulín pozit., primárny TU neidentifikovaný pri 30 mesačnom sledovaní

Thyroid-Like Follicular Carcinoma of Kidney

AUCTORES

Globalize your Research

Journal of Endocrinology and Disorders

Anthony Kodzo-Grey Venyo

Open Access

Review Article

Primary Thyroid-Like Follicular Carcinoma of Kidney: Review and Update

Anthony Kodzo-Grey Venyo*

North manchester general hospital, department of urology, delaunays road, m85rb Manchester United Kingdom.

***Corresponding Author:** Anthony Kodzo-Grey Venyo, North Manchester general hospital, department of urology, delaunays road, m85rb Manchester United Kingdom

Received Date: 27 November 2023 | **Accepted Date:** 12 December 2023 | **Published Date:** 03 January 2024

Citation: Grey Venyo AK, (2024), Primary Thyroid-Like Follicular Carcinoma of Kidney: Review and Update, *J. Endocrinology and Disorders*, 8(1): DOI:10.31579/2640-1045/165

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Thyroid-Like Follicular Carcinoma of Kidney

- zriedkavý, 40 prípadov v literatúre
- 10 – 83 rokov, priemer 43
- častejšie u žien (2:1)
- väčšinou incidentálny, asymptomatický
- 13% perirenálna invázia, 10 % MTS
- MTS: LU, lebka, meningy, pľúca

MTS

- bez recidívy 26 mesiacov po torakotómii

Int J Clin Exp Med 2017;10(12):16739-16744
www.ijcem.com /ISSN:1940-5901/IJCEM0057745

Case Report

Thyroid-like follicular carcinoma of kidney with lung metastasis: a case report and review of literature

Wei Xiao^{1*}, Ji Zhang^{2*}, Jun Zhang^{3*}, Jingjing Bao¹, Xiaowei Zhu¹, Guihong Dai¹, Xiaoqin Jiang¹, Fuxing Liu¹, Junxing Huang⁴, Hong Yu¹

Departments of ¹Pathology, ²Image, ³Nuclear Medicine, ⁴Oncology, Taizhou People's Hospital, Taizhou, Jiangsu Province, China. *Equal contributors.

Received May 18, 2017; Accepted August 1, 2017; Epub December 15, 2017; Published December 30, 2017

MTS

- 12 mesiacov po operácii MTS asymptomatický

Medicine®

CLINICAL CASE REPORT

OPEN

Thyroid-Like Follicular Carcinoma of the Kidney in a Patient with Skull and Meningeal Metastasis

A Unique Case Report and Review of the Literature

Liang Dong, MD, Jiayu Huang, MD, Luke Huang, MD, Oumin Shi, PhD, Qiang Liu, MD, Haige Chen, MD, Wei Xue, MD, and Yiran Huang, MD

Abstract: Thyroid-like follicular carcinoma of the kidney (TLFCK) is an extremely rare subtype of renal cell carcinoma with close resemblance to the well-differentiated thyroid follicular neoplasms. TLFCK has not been included in the 2004 World Health Organization (WHO)

variant of renal cell carcinoma has uncertain malignant potential and can be more clinically aggressive than previously believed.

(*Medicine* 95(15):e3314)

Perret R, Lefort F, Bernhard JC, Baud J, Le Loarer F, Yacoub M. (2022). Thyroid-like follicular renal cell carcinoma with sarcomatoid differentiation and an aggressive clinical course: a case report confirming the presence of the EWSR1:PATZ1 fusion gene. *Histopathology*, 80(4):745-748.

Thyroid-Like Follicular Carcinoma of the Kidney With Extensive Sarcomatoid Differentiation: A Case Report and Review of the Literature

International Journal of Surgical Pathology
1–6

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DOI: 10.1177/1066896919845490

journals.sagepub.com/home/ijsp



Taylor M. Jenkins, MD¹ , Jason Rosenbaum, MD¹,
Paul J. Zhang, MD¹, Lauren E. Schwartz, MD¹, Anupma Nayak, MD¹ ,
Kumarasen Cooper, MBChB, DPhil¹, Satish K. Tickoo, MD²,
and Priti Lal, MD¹

- MTS a DOD pár mesiacov po dg.

Thyroid-Like Follicular Carcinoma of Kidney

- väčšinou stage 1
- jadrový grade 1-2
- niektorí popisujú nukleárne zárezy bez pseudoinklúzií
- na rozdiel od koloidu ŠŽ je obsah folikulov PAS pozit.
(Tamm-Horsfall glykoproteín?)

IHC

- pozit.: CAM 5.2, CK7, PAX2, PAX8, Vimentin, Cyclin D1
- negat.: Thyroglobulin, TTF1
- väčšinou negat. alebo variabilne pozit.: RCC Marker, AMACR, CD10, CK20, CD56, WT1, CEA, CD15, CK19, HMWCK

10 % má predchádzajúcu anamnézu inej neoplázie

- najčastejšie hematologická
- oteracil + cisplatina najčastejšia CHT prvej malignity

EWSR1-PATZ1

- n=9
- všetky 3 ktoré sa podarilo sekvenovať

Modern Pathology (2021) 34:1921–1934
<https://doi.org/10.1038/s41379-021-00833-7>



ARTICLE



EWSR1-PATZ1 fusion renal cell carcinoma: a recurrent gene fusion characterizing thyroid-like follicular renal cell carcinoma

Khaleel I. Al-Obaidy¹ · Julia A. Bridge^{2,3} · Liang Cheng¹ · Janos Sumegi⁴ · Victor E. Reuter⁵ · Ryma Benayed⁵ · Meera Hameed⁵ · Sean R. Williamson⁶ · Ondrej Hes⁷ · Fatimah I. Alruwaili¹ · Jeremy P. Segal⁸ · Pankhuri Wanjari⁸ · Muhammad T. Idrees¹ · Mehdi Nassiri¹ · John N. Eble¹ · David J. Grignon¹

Received: 11 September 2020 / Revised: 12 May 2021 / Accepted: 12 May 2021 / Published online: 7 June 2021
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PATZ1 v iných nádoroch

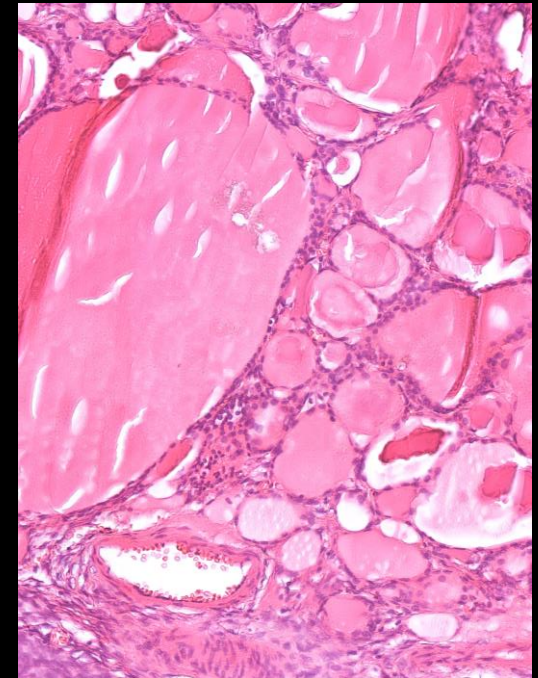
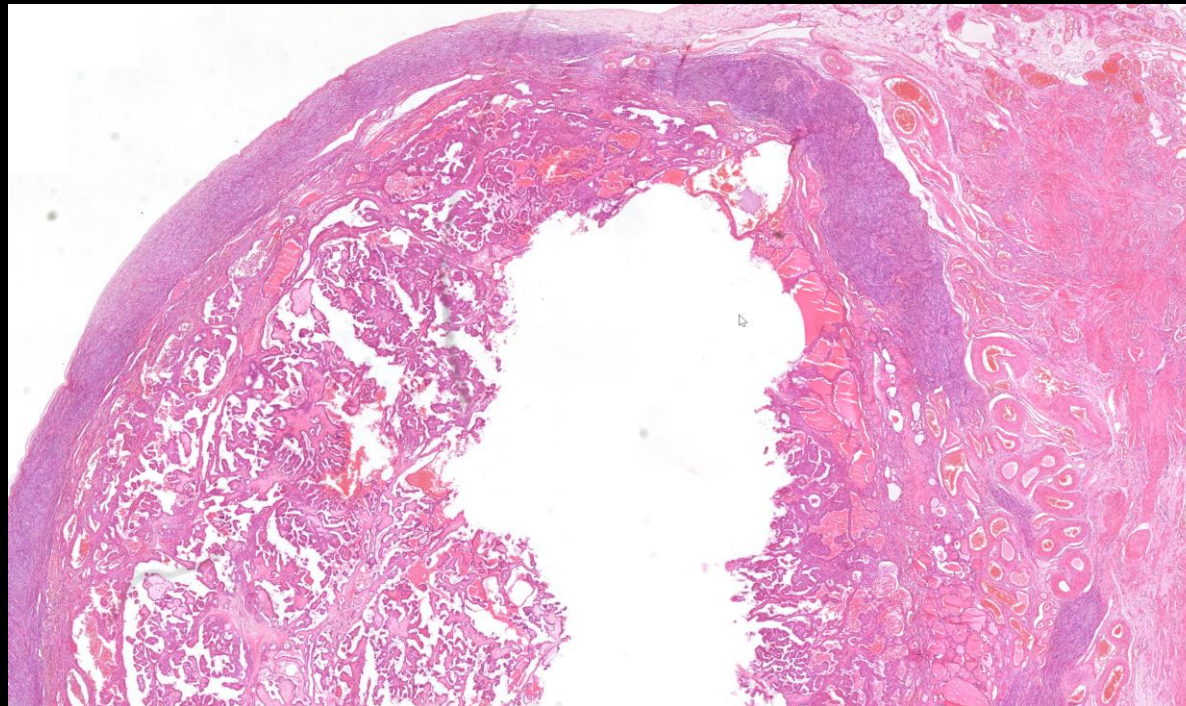
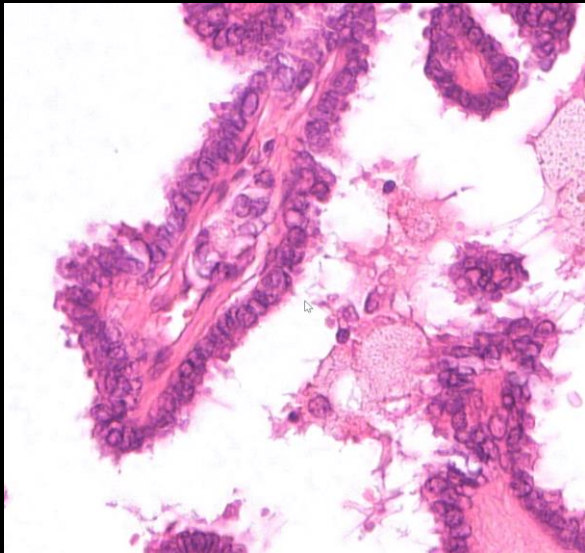
- Michal M, Rubin BP, Agaimy A, Kosemehmetoglu K, Rudzinski ER, Linos K et al (2020) [EWSR1-PATZ1-rearranged sarcoma](#): a report of nine cases of spindle and round cell neoplasms with predilection for thoracoabdominal soft tissues and frequent expression of neural and skeletal muscle markers. Mod Pathol 34:770–785. [https:// doi. org/ 10. 1038/ s41379- 020- 00684-8](https://doi.org/10.1038/s41379-020-00684-8)
- Rossi S, Barresi S, Colafati GS, Genovese S, Tancredi C, Costabile V et al (2023) [PATZ1-rearranged tumors of the central nervous system](#): characterization of a pediatric series of seven cases. Mod Pathol 37:100387. [https:// doi. org/ 10. 1016/j. modpat. 2023. 100387](https://doi.org/10.1016/j.modpat.2023.100387)

Dif. dg.

- MTS tyroidálneho karcinómu
- MTS iných nádorov z folikulárnou architektúrou
- folikulárna architektúra v iných obličkových nádoroch

Dif. dg.

- MTS tyroidálneho karcinómu, zriedkavé, väčšinou pri známom diseminovanom ochorení, TTF a Thyreoglobulín pozit.
 - ovariálne a mediastinálne teratómy so strumou
 - ektopická struma ako zdroj tumoru s MTS



Dif. dg.

- folikulárna architektúra v extrarenálnych tumoroch (MTS): okrem folikulárneho CA štítnej žľazy, uroteliálny, prsníkový, cholangiocelulárny CA, Hefner, plazmocytóm

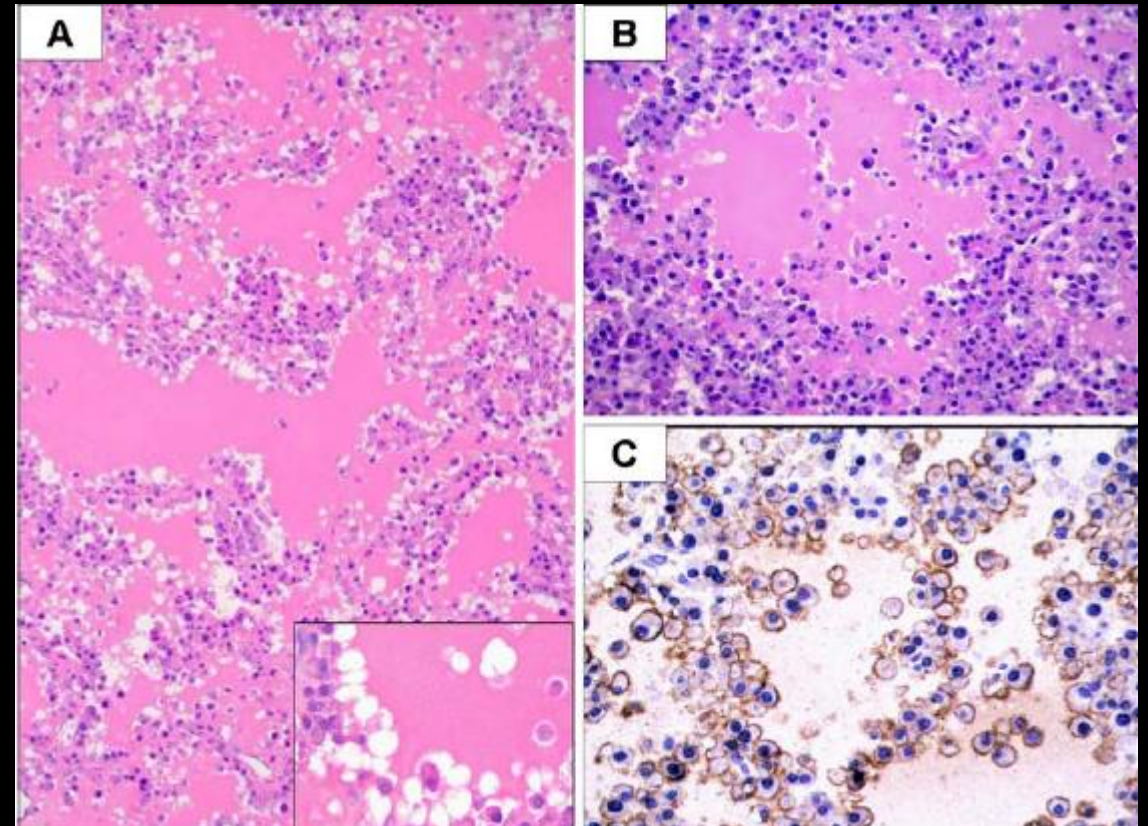
J Hematopathol (2008) 1:127–129
DOI 10.1007/s12308-008-0015-7

LETTER TO THE EDITOR

Well-differentiated (Marschalko-type) plasmacytoma resembling thyroid follicular structures

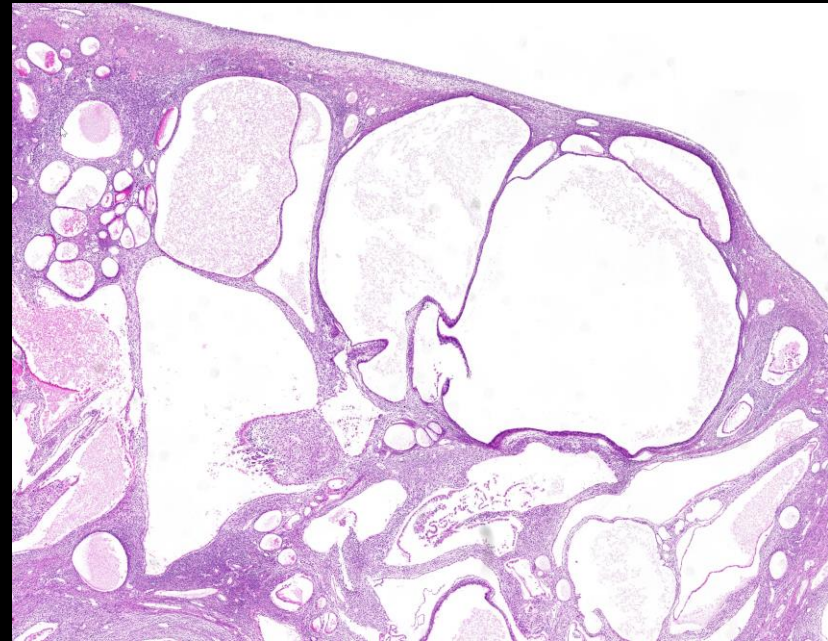
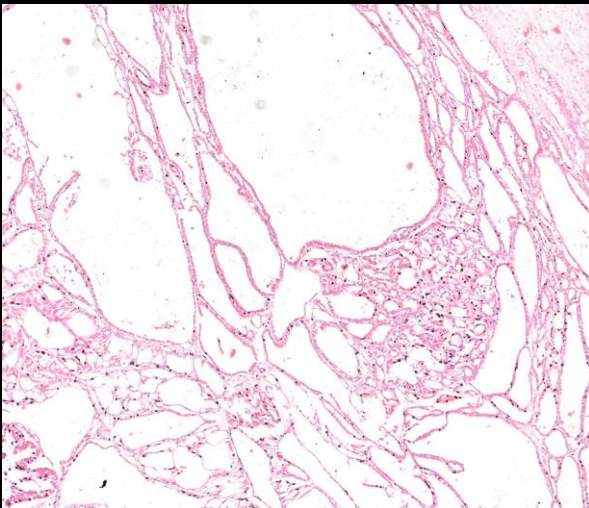
César O. Lara-Torres · Carlos Ortiz-Hidalgo

Received: 26 June 2008 / Accepted: 28 July 2008 / Published online: 22 August 2008
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Dif. dg.

- folikulárna architektúra v iných obličkových nádoroch: papillary RCC, TFEB, TFE3, clear cell RCC, FH deficient RCC, tubulocystic RCC, SDH deficient RCC, microcystic chromophobe RCC, *atrophic kidney-like tumour / lesion*, mixed epithelial and stromal tumour, cystický nefróm,... väčšinou fokálne, iná morfológia a IHC





Distinctive renal cell tumor simulating atrophic kidney with 2 types of microcalcifications. Report of 3 cases ☆☆☆

Ondrej Hes, MD, PhD ^{a,b}, Tulio Geraldo de Souza, MD ^c, Kristyna Pivovarcikova, MUC ^a, Petr Grossmann, PhD ^a, Petr Martinek, MSc ^a, Naoto Kuroda, MD ^d, Denisa Kacerovska, MD, PhD ^a, Marian Svajdlar, MD ^e, Lubomir Straka, MD ^f, Fredrik Petersson, MD, PhD ^g, Milan Hora, MD, PhD ^{b,h}, Michal Michal, MD ^{a,*}

^a Department of Pathology, Faculty of Medicine in Plzeň, Charles University in Prague, Pilsen, Czech Republic

^b Biomedical Centre, Faculty of Medicine in Plzeň, Charles University in Prague, Pilsen, Czech Republic

^c Department of Pathology, Hospital Aliança, Salvador, Bahia, Brazil

^d Department of Pathology, Red Cross Hospital Kochi, Kochi, Japan

^e Department of Pathology, Pasteur University Hospital Kosice, Kosice, Slovak Republic

^f Klinická Patológia Presov, Presov, Slovak Republic

^g Department of Pathology, National University Health System, Singapore, Singapore

^h Department of Urology, Faculty of Medicine in Plzeň, Charles University in Prague, Pilsen, Czech Republic

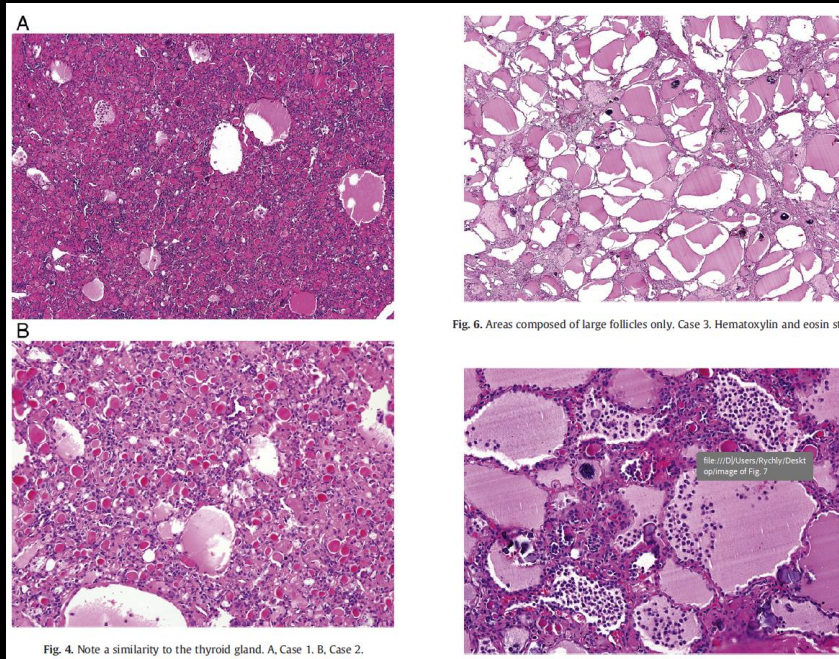


Fig. 4. Note a similarity to the thyroid gland. A. Case 1. B. Case 2.

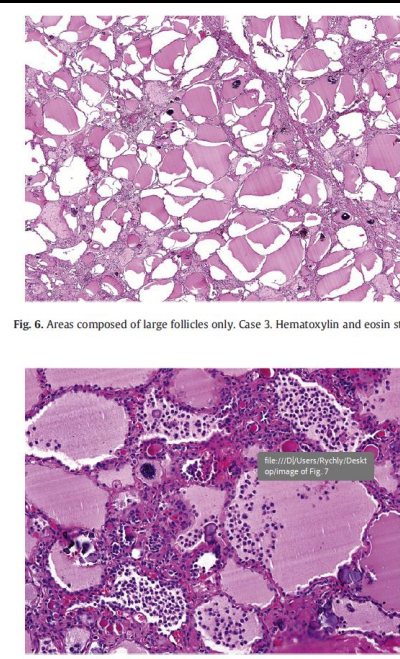
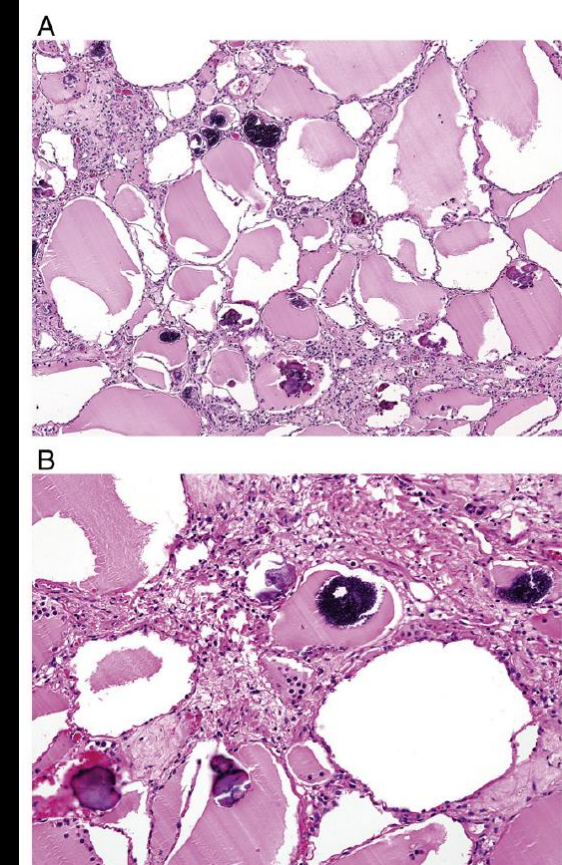
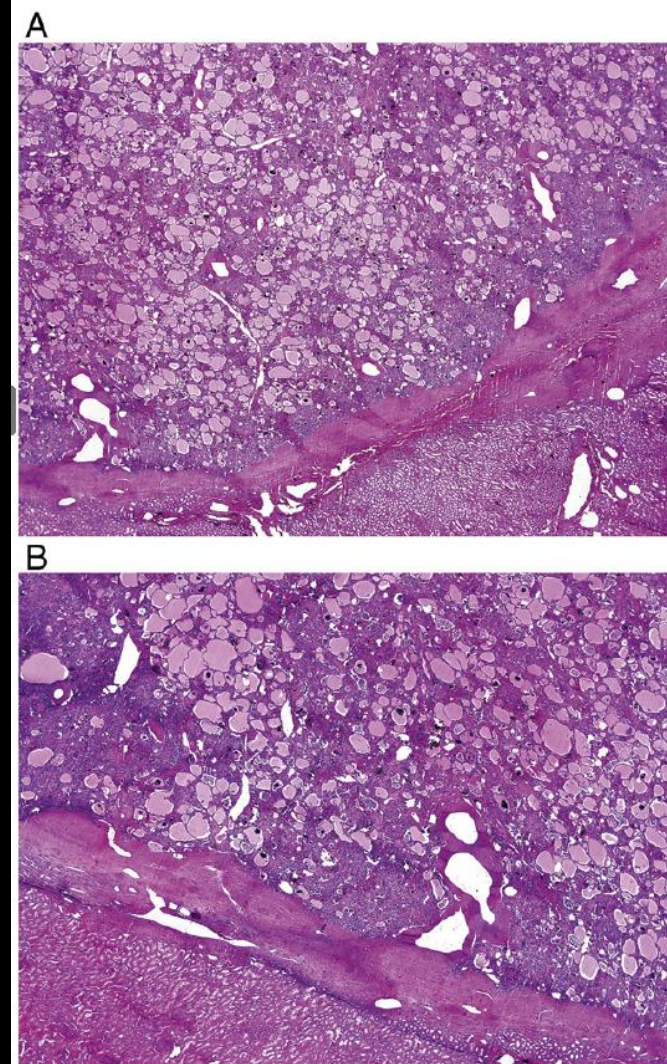


Fig. 6. Areas composed of large follicles only. Case 3. Hematoxylin and eosin stain.

Atrophic Kidney-like tumor



Atrophic Kidney-like tumor / lesion vs. Thyroid-like

- skôr ako atrofická oblička než ako tyroidálny TU
- tubulocystické, glomerulocystické
(v thyroid like back-to-back folikuly)
- výstelka atrofická, „hobnail“ (vs. kubická)
- hrubá muskulárna kapsula
- výstelka cýst WT1+, PAX8 a CK7-, tubuly naopak
(vs. PAX8 pozit. a WT1 negat. Thyroid-like)
- všetky v literatúre (13) benígne
- lokalizovaná atrofia?

Len dva pediatrické prípady

- 10 a 17 rokov

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I

Pediatric thyroid-like follicular renal cell carcinoma—a post-neuroblastoma case with comprehensive genomic profiling data

BRIEF REPORT | Published: 11 July 2024

Volume 485, pages 583–588, (2024) [Cite this article](#)

► [Int Braz J Urol. 2019 Sep 2;45\(4\):834–842. doi: 10.1590/S1677-5538.IBJU.2018.0471](#) [↗](#)

Thyroid-like follicular carcinoma of the kidney presenting on a ten year-old prepubertal girl

[Lisieux Eyer de Jesus](#)¹, [Celine Fulgêncio](#)¹, [Thais Leve](#)¹, [Samuel Dekermacher](#)¹

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PMCID: PMC6837619 PMID: [31063281](#)

13. Virtuálny bioptický seminar spoločnosti UNILABS a Ústavu patológie LF SZU

streda, 4.12. 2024 o 14:00

Dovoľujeme si Vás pozvať na 13. Virtuálny bioptický seminár spoločnosti UNILABS a Ústavu patológie LF SZU.

Témy:

14:00 - 14:30 Z. Zelinková, B. Rychlý - Mezenteriálna masa - diferenciálno-diagnostický a terapeutický oriešok

14:30 - 15:00 P. Prohászka: Prediktívne testovanie pri solídnych nádoroch

15:00 - 15:30 I. Mečiarová: Vyšetrenie expresie PD-L1 u pacientov s karcinómom hlavy a krku

15:30 - 16:00 M. Puchertová: Pediatrický renálny tumor

16:00 - 16:30 T. Krajčovič: Zmeny vo WHO klasifikácii malígnych nádorov hlavy a krku (5. vydanie)

"Hello, we have discovered two types of Lymphomas & would like to register them"

" OK, tell me your names, please "

"Dr. Hodgkins"

" OK, so Hodgkin's Lymphoma. The second Doctor's name, please "

"Dr. Ottovordemgentschenfelde "

" OK, Non-Hodgkins Lymphoma. Done

d'akujem za pozornost'