

2016 AANP Diagnostic Slide Session

Case 4

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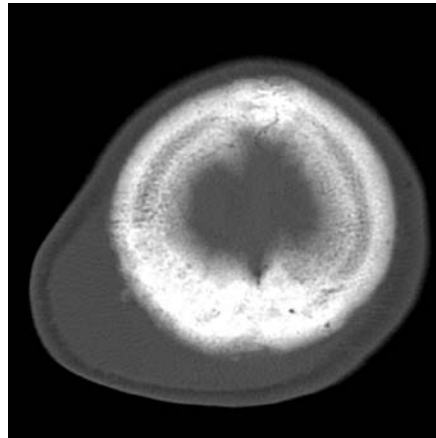
Northwestern University

no financial disclosures

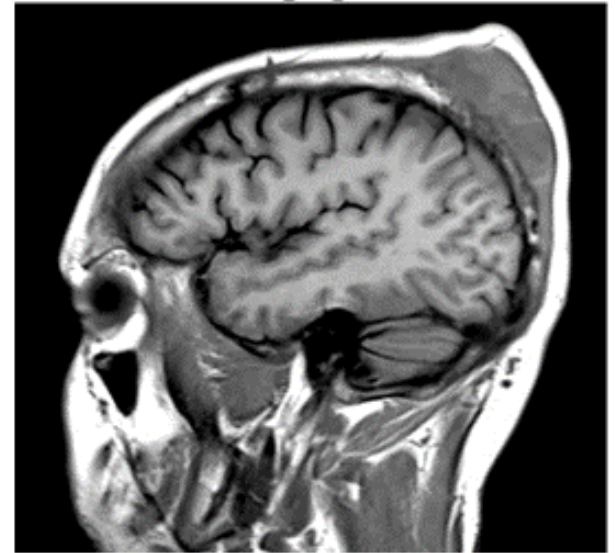
history

- 24 y/o man
- rapid growth of mass over the back of his head
- generalized tonic-clonic seizure

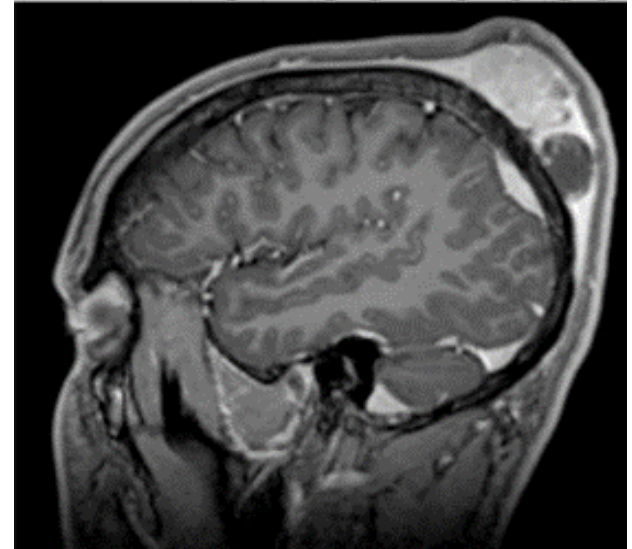
CT



T1

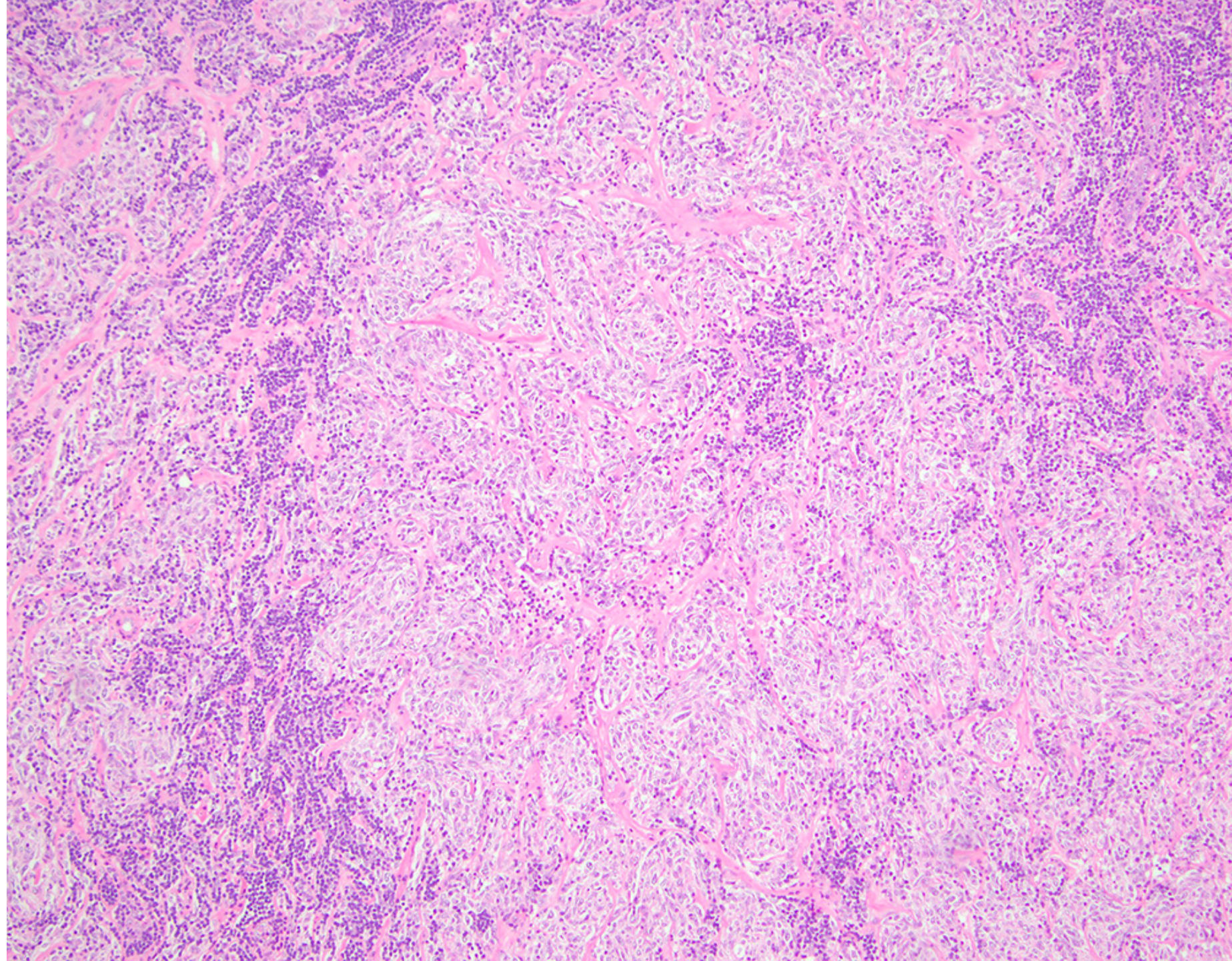


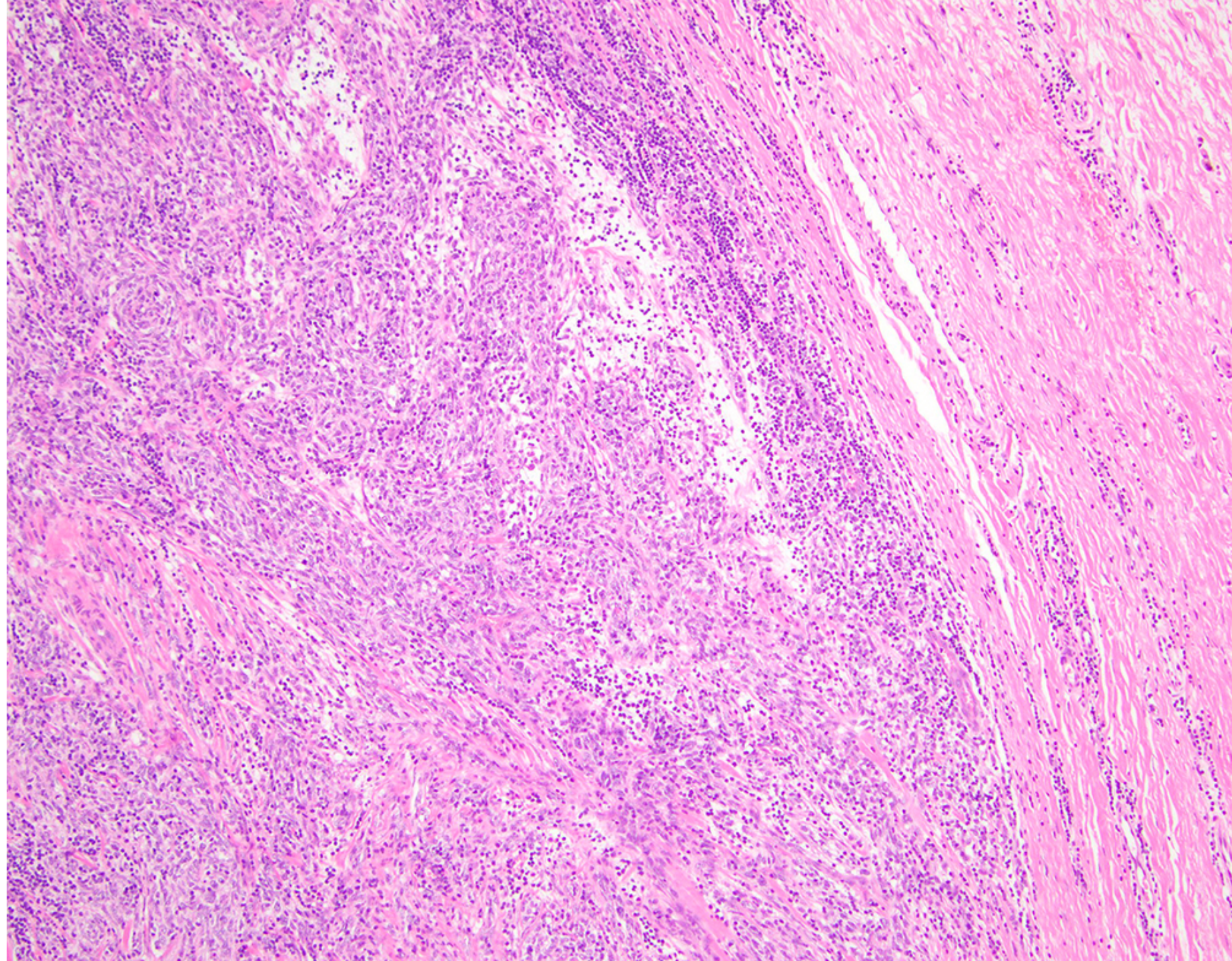
T1 with contrast

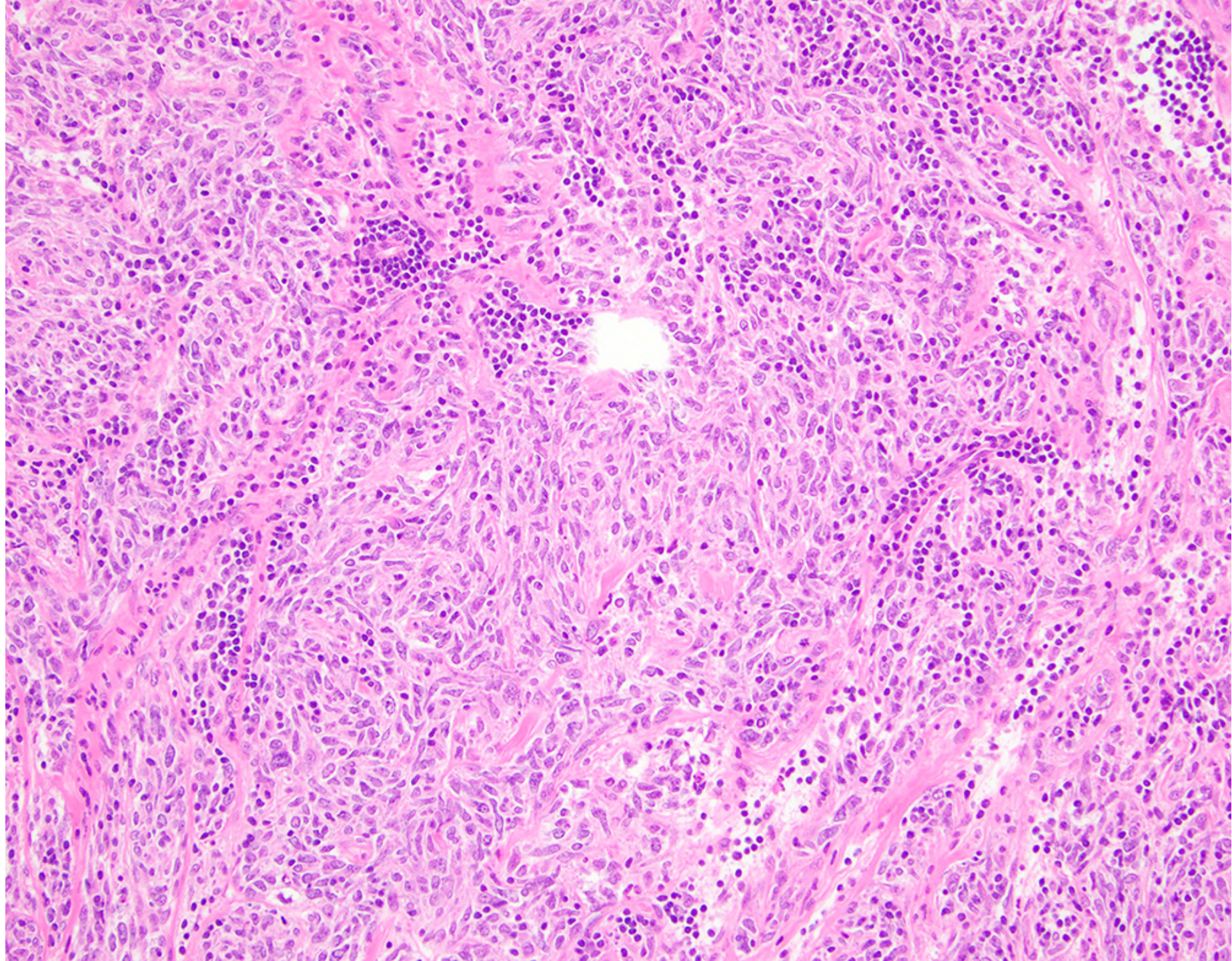


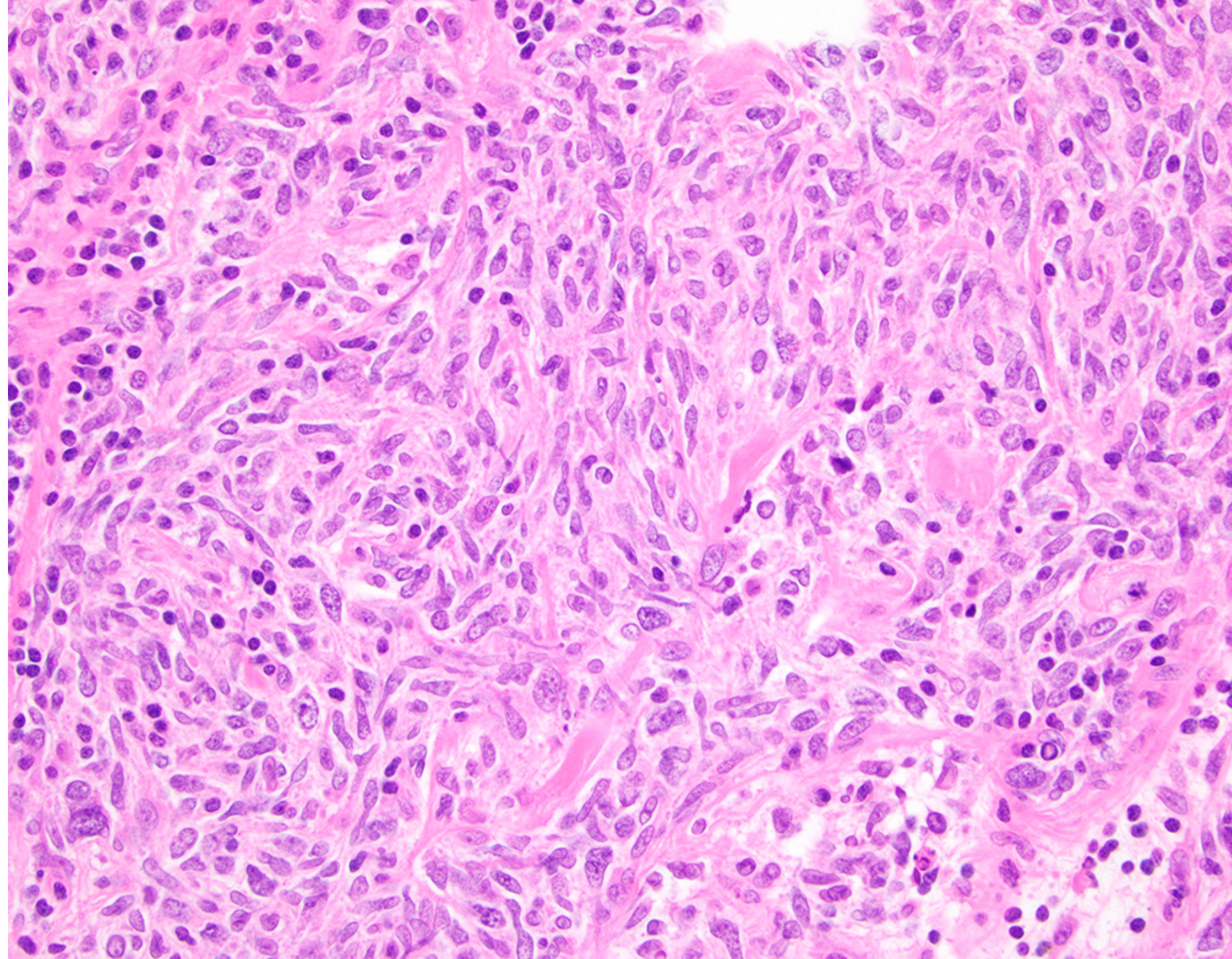
gross

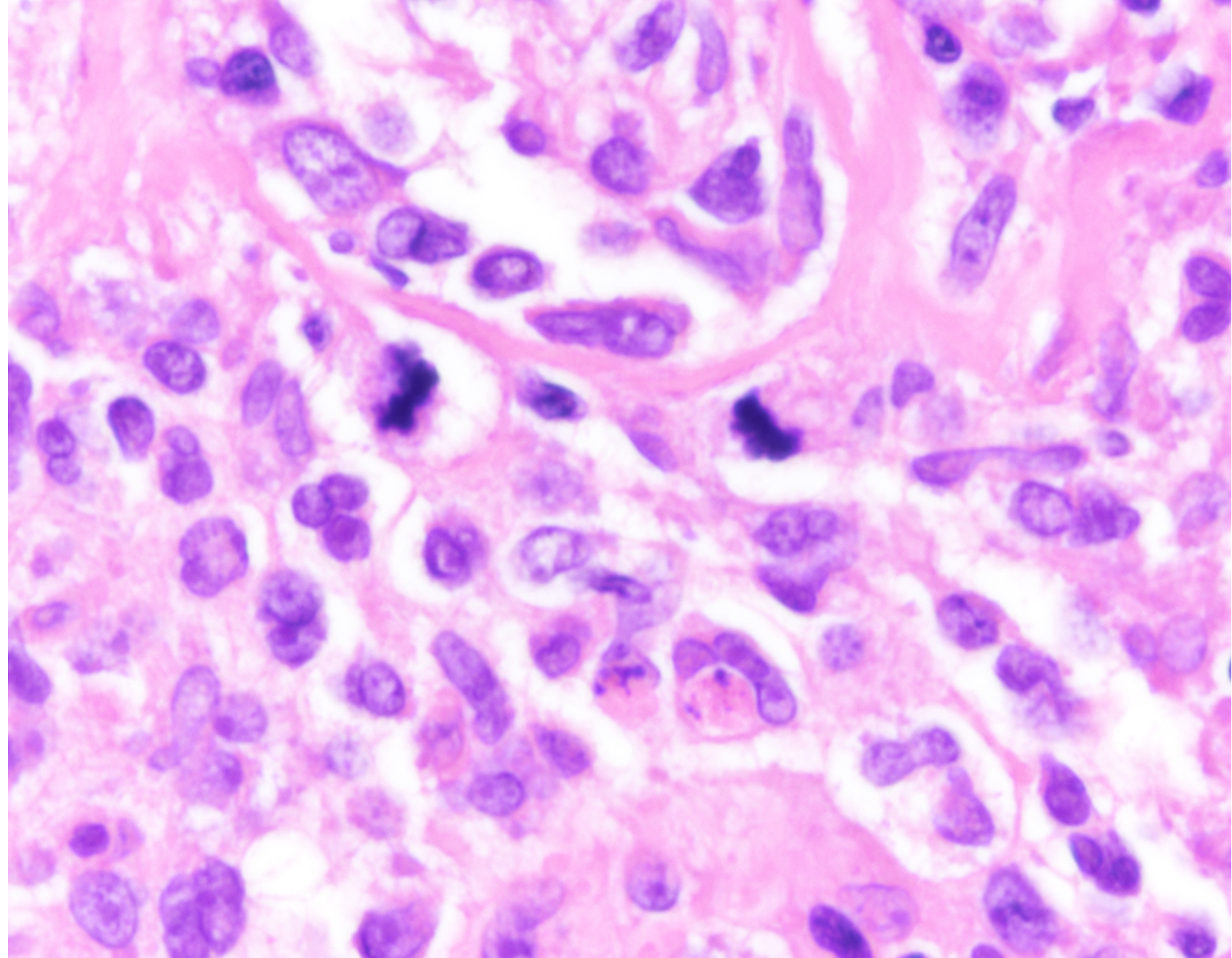
- 5.3 x 3.4 x 1.6 cm lobulated yellow and white-tan rubbery mass with attached dura



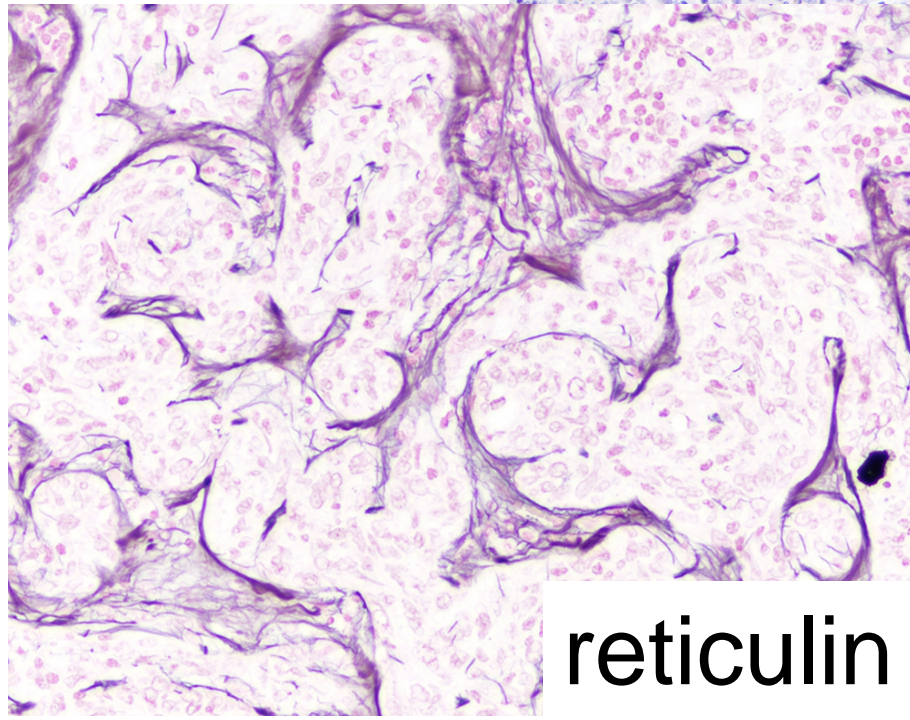
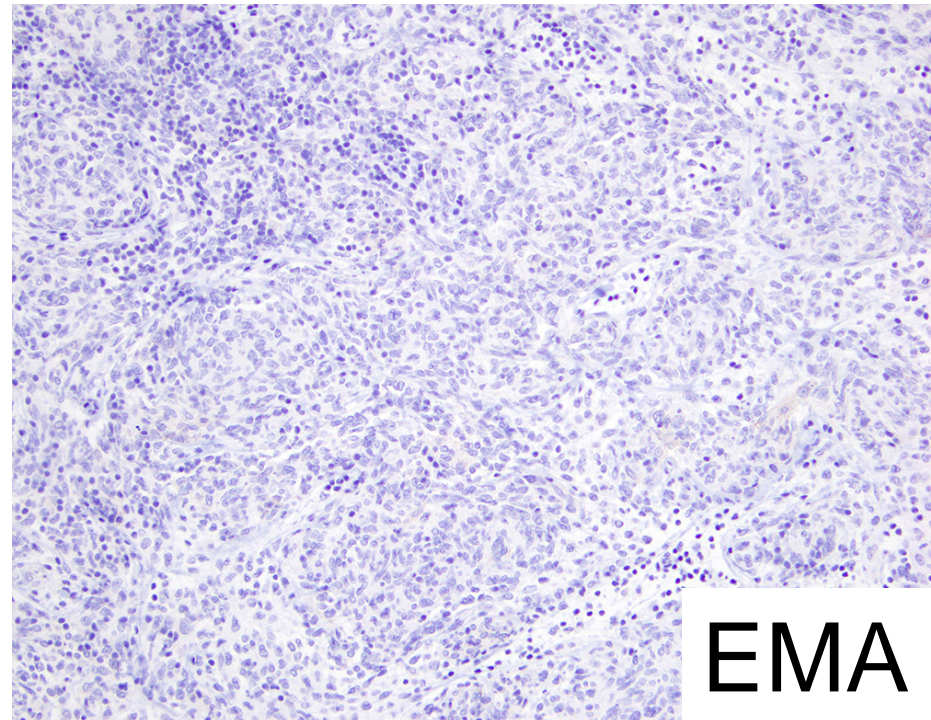
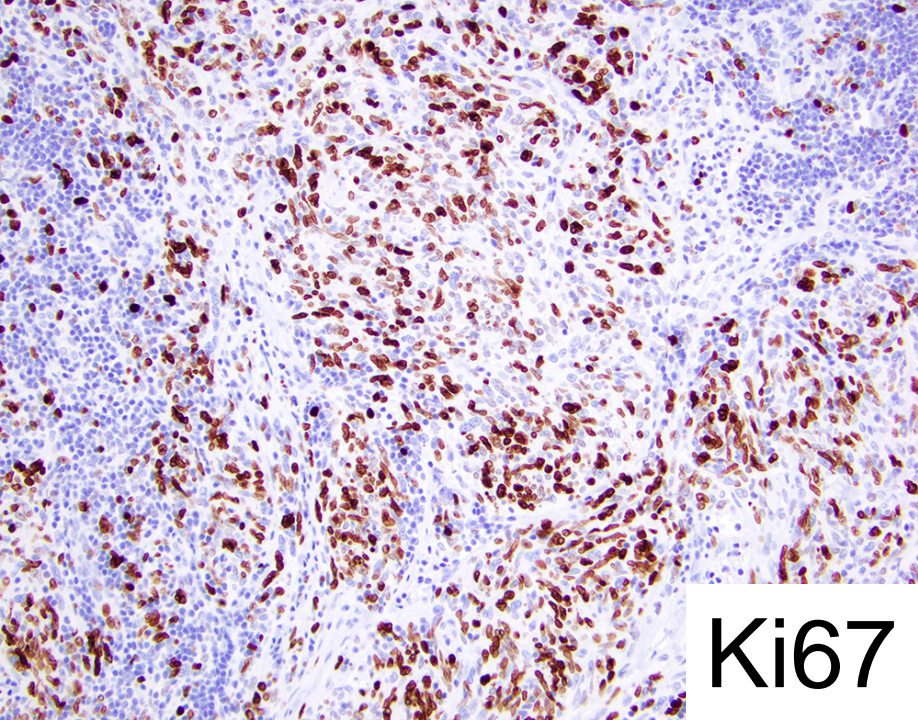






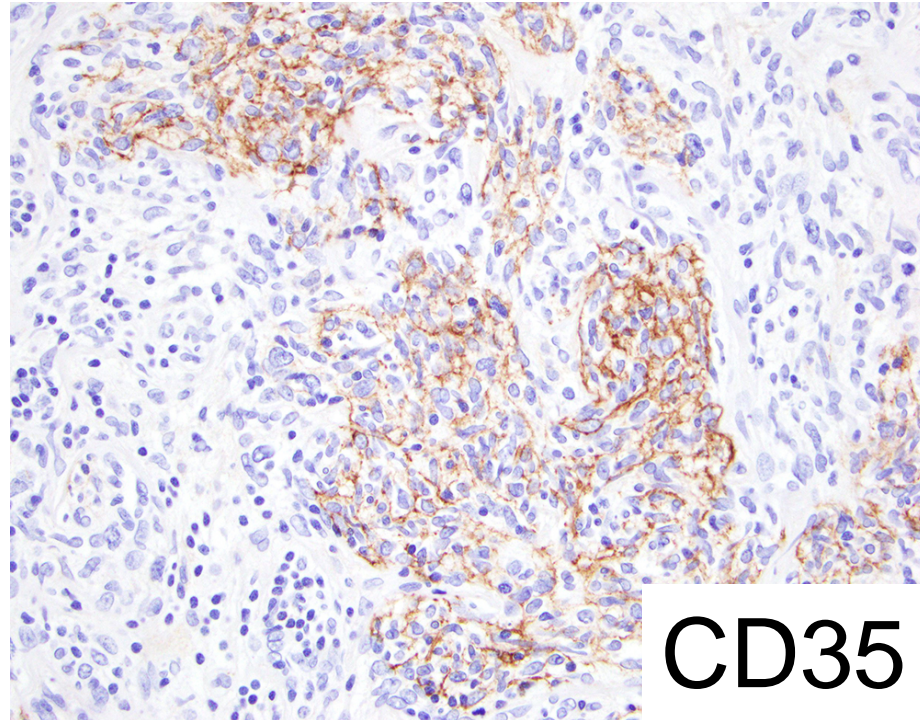
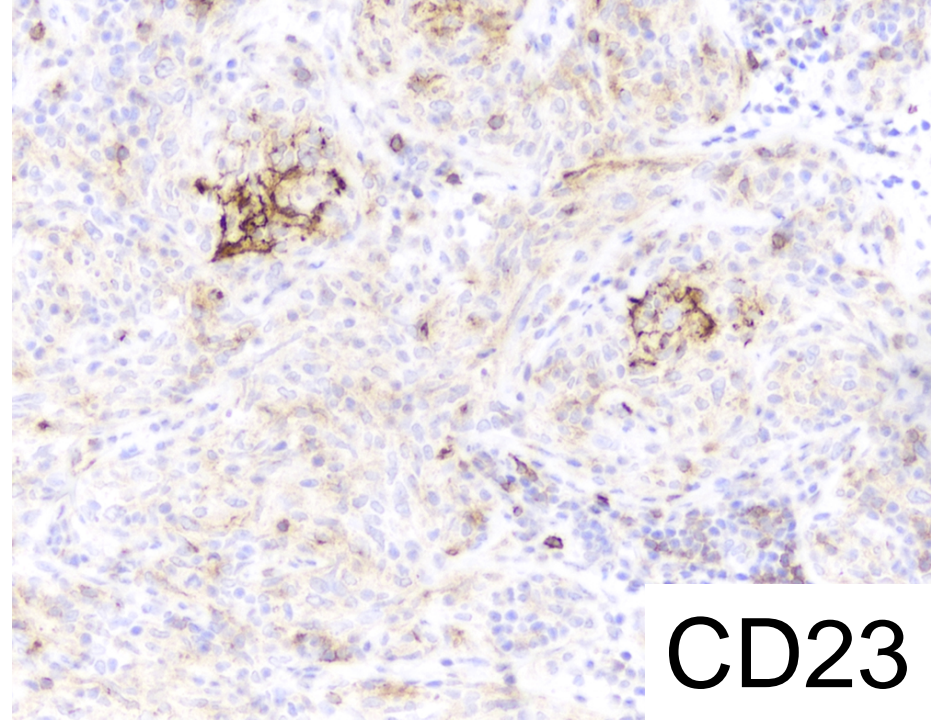
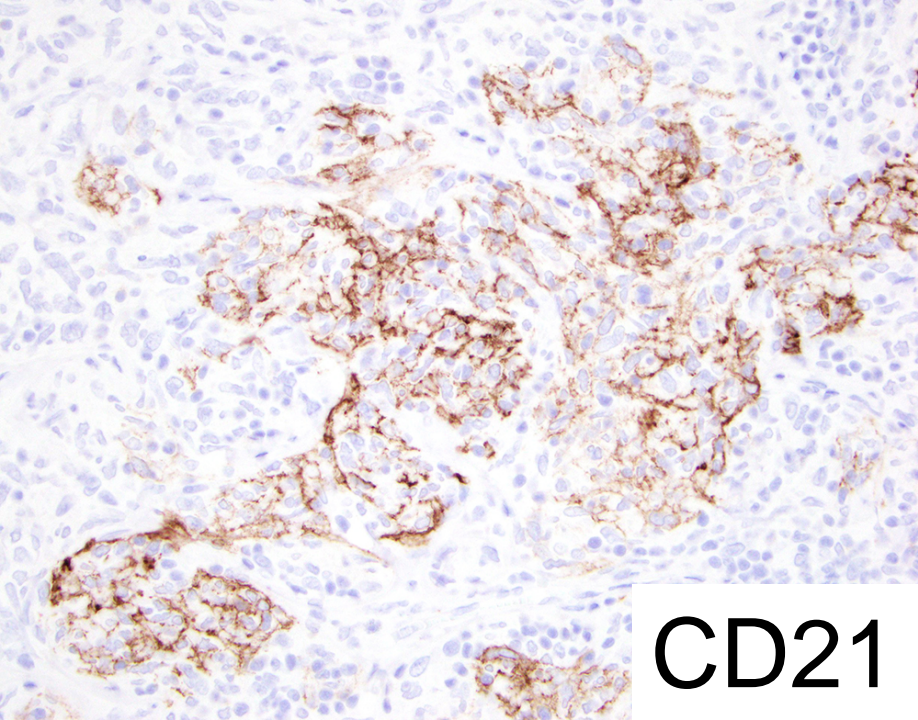


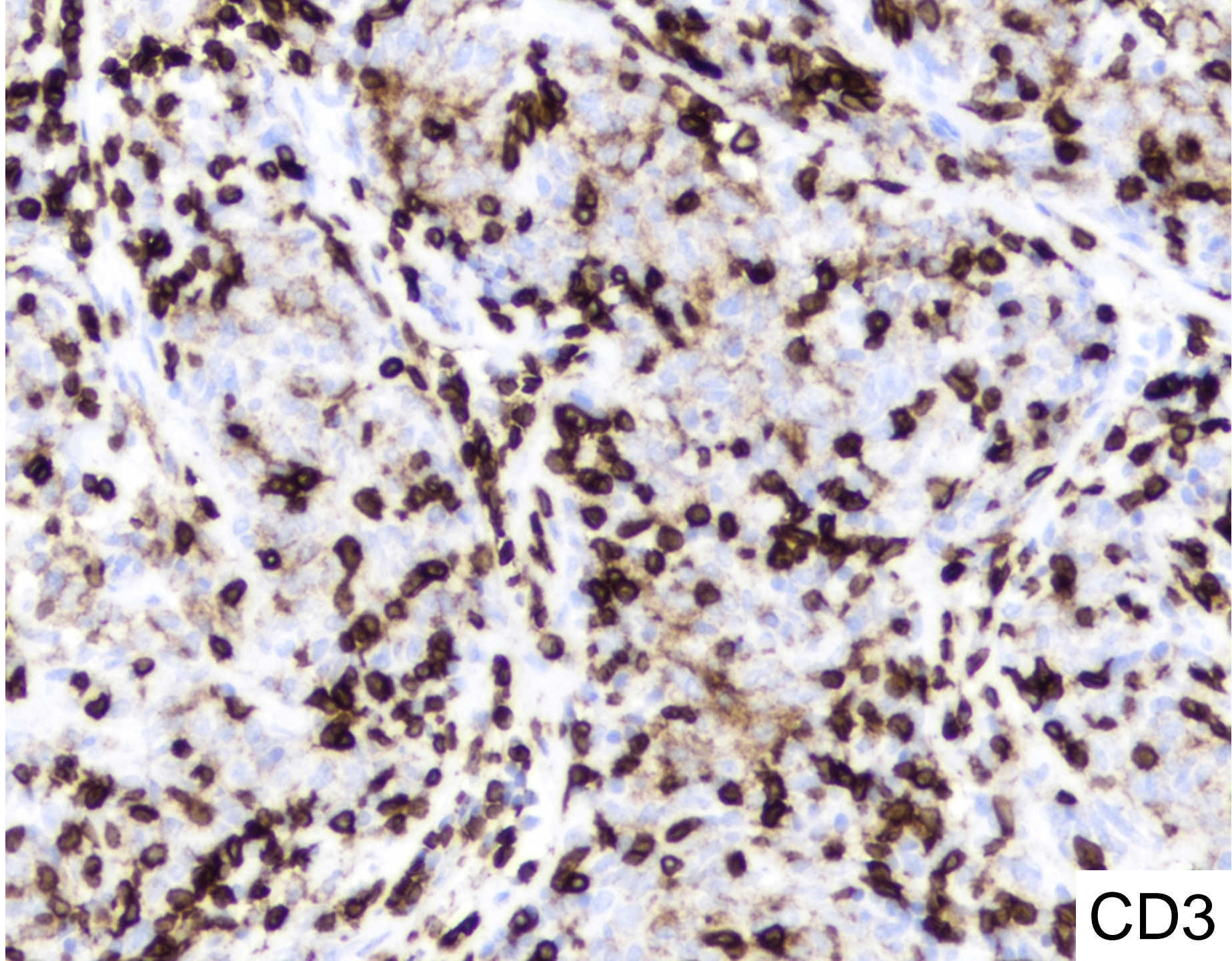
- Additional stains?
- Diagnosis?



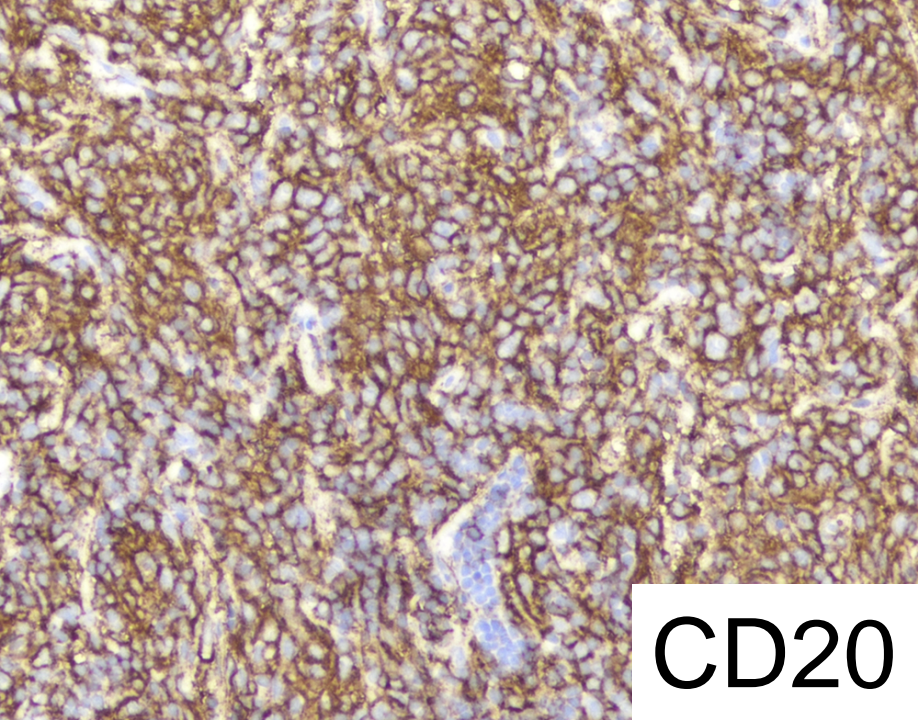
other IHC

stain	result
CD34	negative in tumor cells
S100	negative in tumor cells
SMA	negative in tumor cells
desmin	negative in tumor cells
CD56	negative in tumor cells
CD1a	negative in tumor cells
CD68	negative in tumor cells
ALK1	negative in tumor cells
P63	nuclear positivity
vimentin	positive

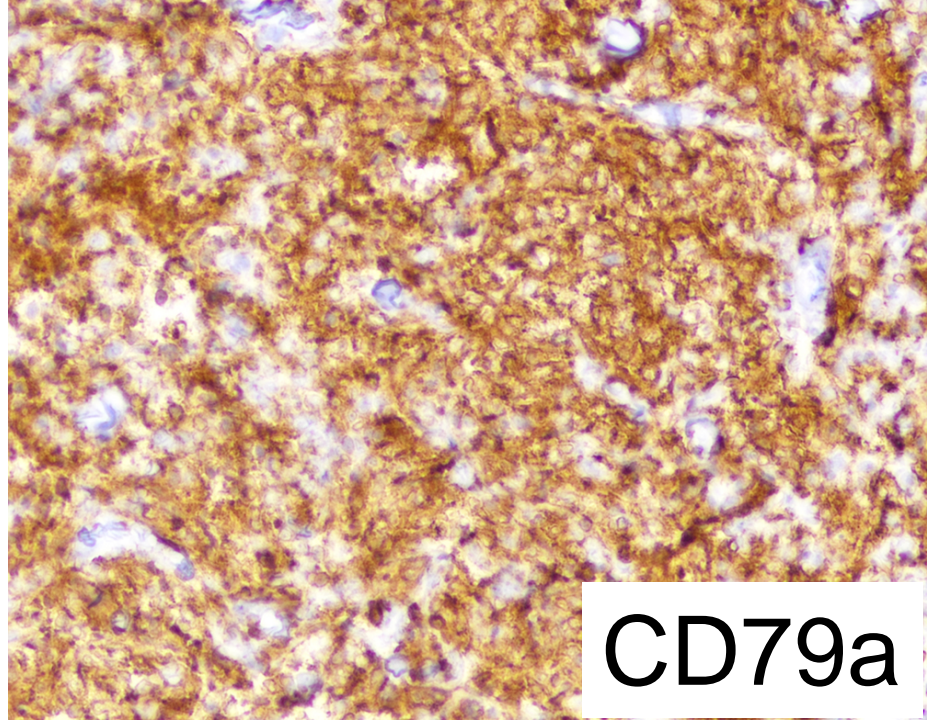




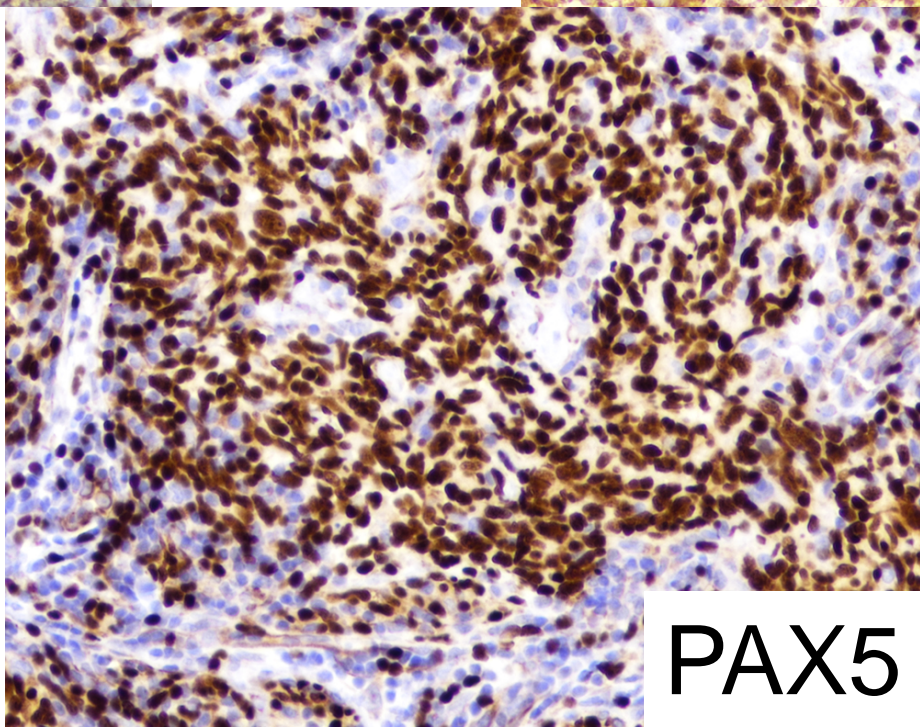
CD3



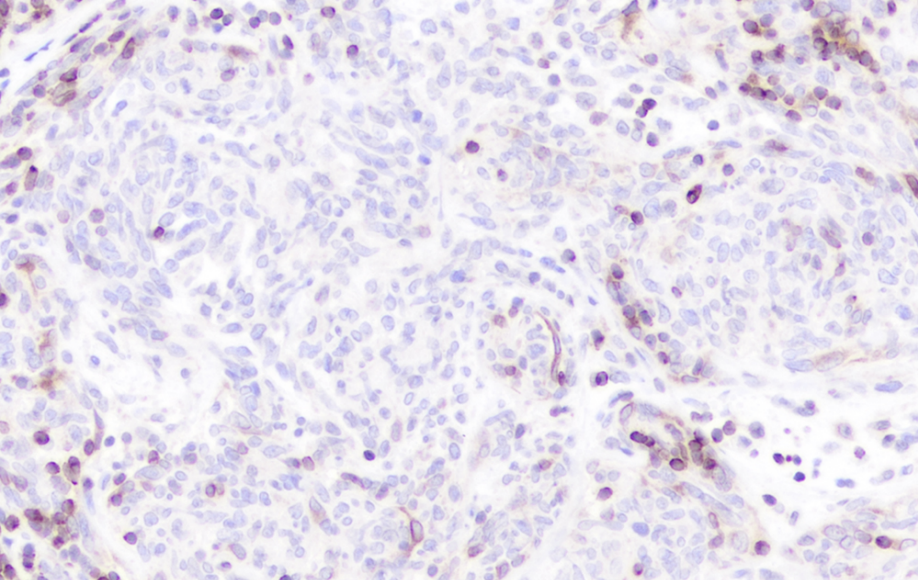
CD20



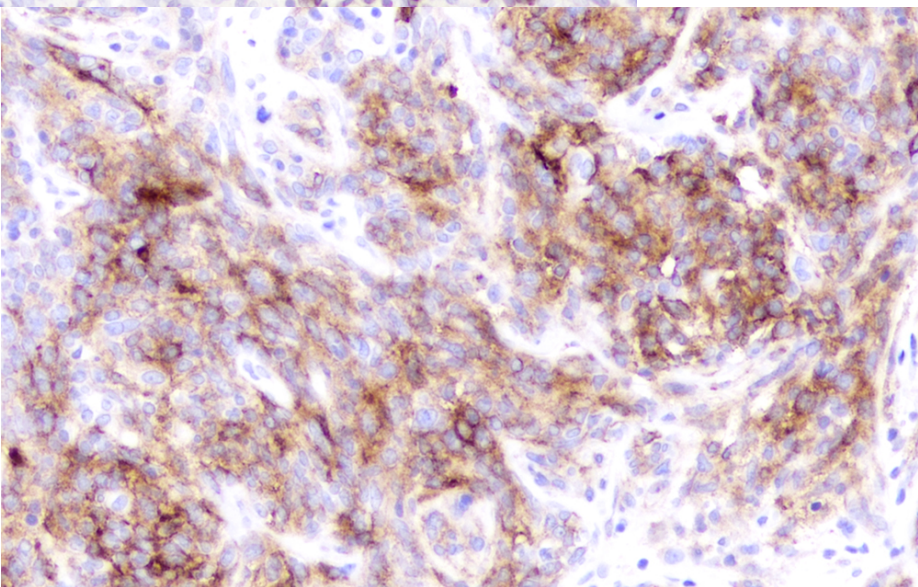
CD79a



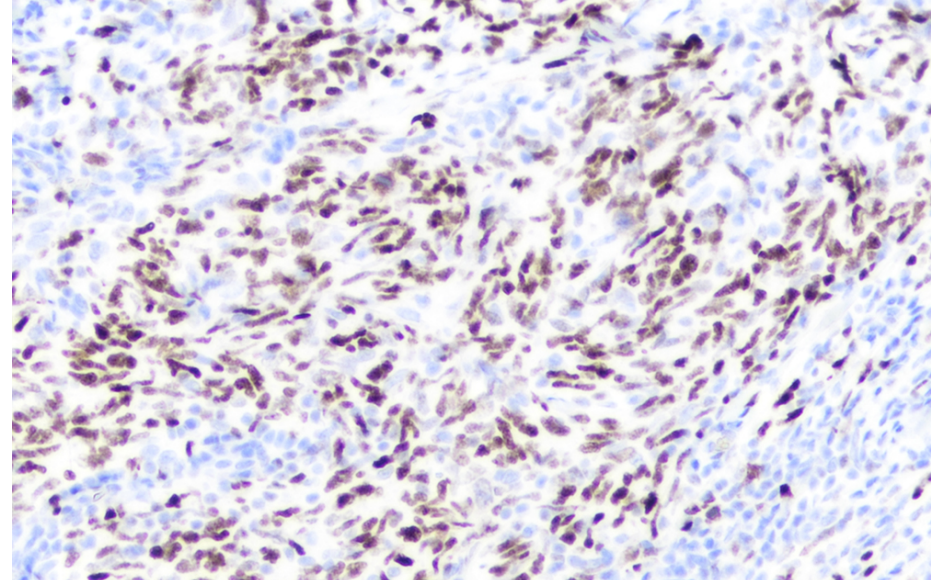
PAX5



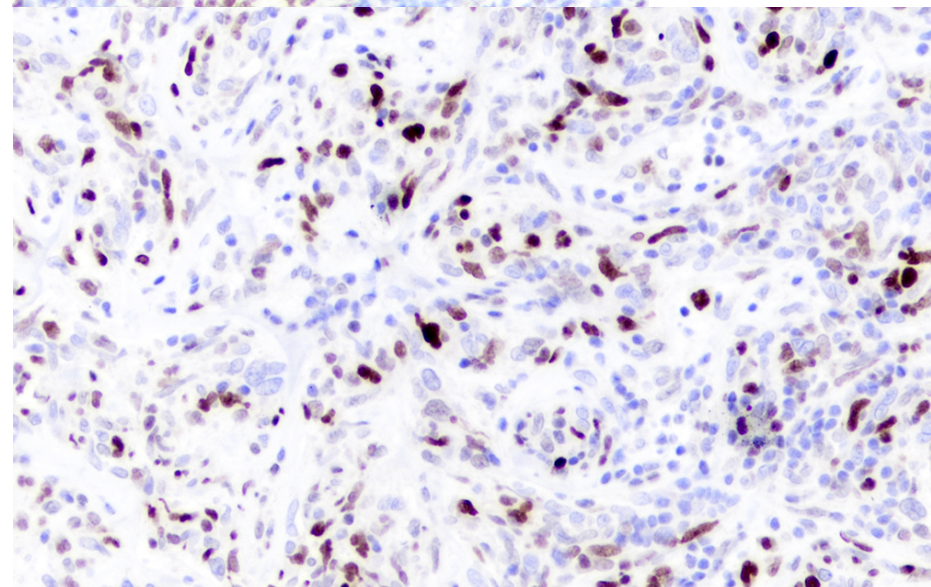
BCL2



CD10



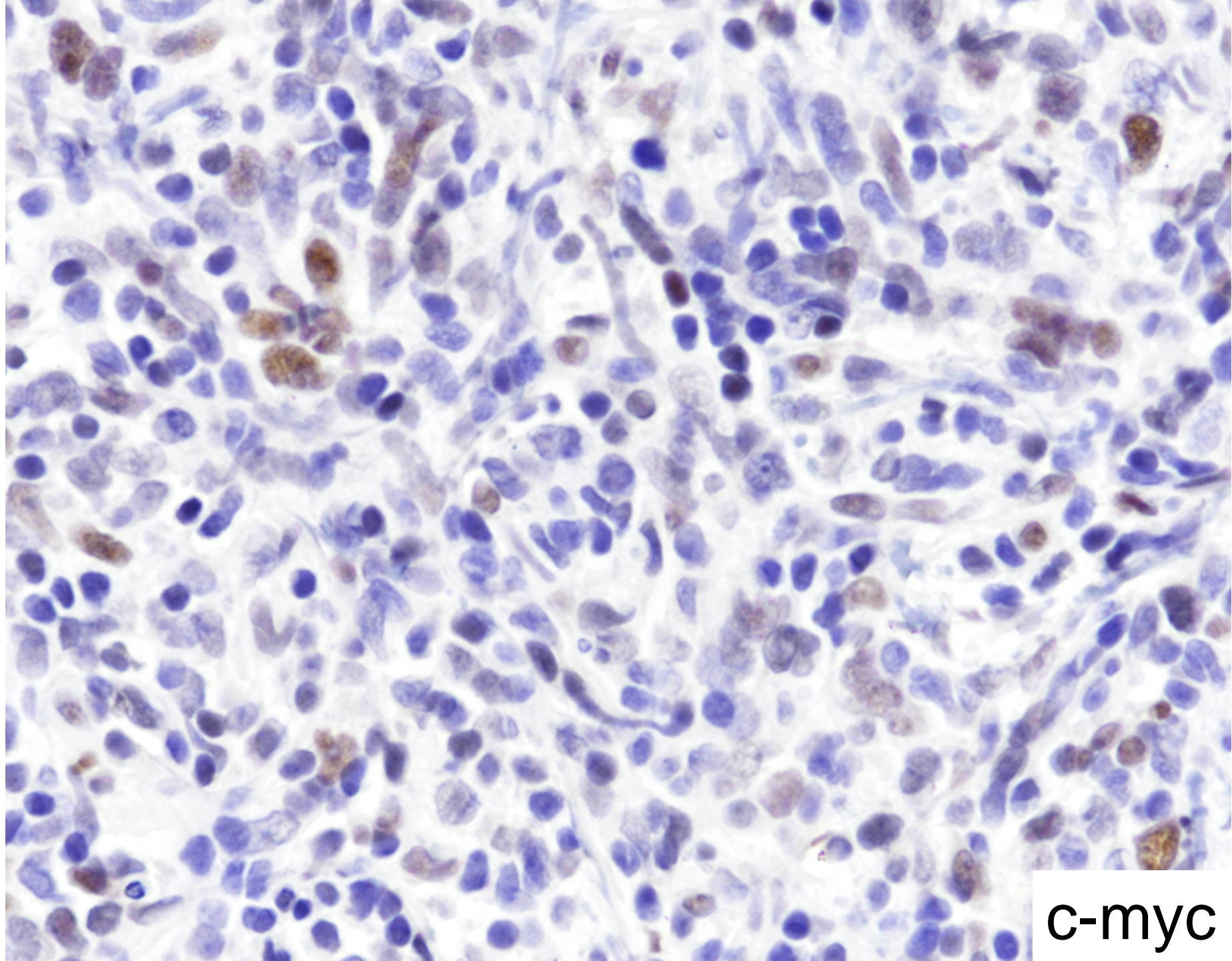
BCL6



MUM1

diagnosis

- B-cell lymphoma, germinal center origin, spindle/sclerosing variant



c-myc

spindle/sclerosing lymphoma

- very rare entity
- “common” sites
 - skin
 - subcutaneous tissues
 - mediastinum
 - sinuses
 - skull and facial bones

differential

- high grade meningioma
- metastasis
- solitary fibrous tumor
- sarcoma
- inflammatory pseudotumor
- neurosarcoidosis
- Castleman's disease

why spindled?

Case Report

Primary platelet-derived growth factor-producing, spindle-shaped diffuse large B-cell lymphoma of the skull: a case report and literature review

Kei-Ji Sugimoto¹, Asami Shimada¹, Kunimoto Ichikawa¹, Mihiroshi Izumi³, Yasunori Ota⁴, Norio Komatsu², Masaaki Nozaki¹

A spindle cell variant of diffuse large B-cell lymphoma is characterized by T-cell/myofibrohistio-rich stromal alterations: analysis of 10 cases and a review of the literature

Yoshizo Kimura¹, Fumiko Arakawa¹, Junichi Kiyasu¹, Hiroaki Miyoshi¹, Maki Yoshida¹, Ayako Ichikawa¹, Shinji Nakashima¹, Yukinao Ishibashi¹, Daisuke Niino¹, Yasuo Sugita¹, Ken Ishiyama², Masakazu Higuchi³, Yumi Takasaki⁴, Taizo Shimomura⁵, Chisato Koike⁶, Nobuo Kuwahara⁷, Kazuhisa Fujikawa⁸, Koichi Ohshima¹

- increased expression of FGF2, TGFβ1, PDGF, and TNFα → increased fibrosis and mesenchymal phenotype

treatment

- rituximab
- cyclophosphamide, doxorubicin, vincristine, and prednisone (CHOP)
- NOT radiotherapy

outcome

- lymphoma also detected in distal lymph nodes
- on R-CHOP
- struggling with pneumonia

references

- Carbone A, Gloghini A, Libra M, Gasparotto D, Navolanic P, Spina M, et al (2006) A spindle cell variant of diffuse large B-cell lymphoma possesses genotypic and phenotypic markers characteristic of a germinal center B-cell origin. *Modern Pathology*. **19**:299-306.
- Low I, Allen J (2006) Low-grade follicular lymphoma in the dura: rare mimic of meningioma. *Neuropathology*. **26**:564-8.
- Nozawa Y, Wang J, Weiss LM, et al (2001) Diffuse large B-cell lymphoma with spindle cell features. *Histopathology*. **38**:177-8.
- Sugimoto KJ, Shimada A, Ichikawa K, Wakabayashi M, Sekiguchi Y, Izumi H, Ota Y, Komatsu N, Noguchi M (2014) Primary platelet-derived growth factor-producing, spindle-shaped diffuse large B-cell lymphoma of the skull: a case report and literature review. *International Journal of Clinical and Experimental Pathology*. **7**:4381-90.
- Tandon R, Mukherjee U, Abrari A, Patir R, Tandon A, Bansal B (2012) Primary dural follicular lymphoma masquerading as meningioma: a case report. *British Journal of Neurosurgery*. **26**:905-906.
- Wang J, Sun N, Nozawa Y, Arber D, Chu P, Chang K, et al (2001) Histological and immunohistochemical characteristics of extranodal diffuse large-cell lymphomas with prominent spindle cell features. *Histopathology*. **39**:476-481.