

5 Low grade NHL

Mark Smith

Bristol Lymphoma Day

LYMPHOMA GRADE

CLL/Lymphocytic	→	DLBCL (Richter's)
Mantle Cell Lymphoma	→	Blastoid Mantle Cell
Follicular Lymphoma (G1, G2, G3a, G3b)		(DLBCL)

NODULAR and FOLLICULAR GROWTH PATTERNS

NODULAR

FOLLICULAR

CLL/lymphocytic

Occasionally

Follicular lymphoma

YES

Mantle cell lymphoma

YES

Marginal zone lymphoma

YES

Nodular sclerosis Hodgkin Lymphoma

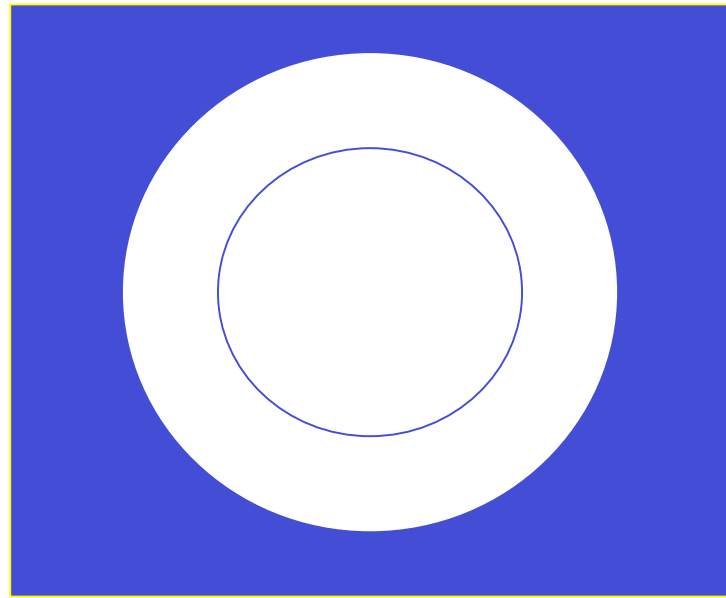
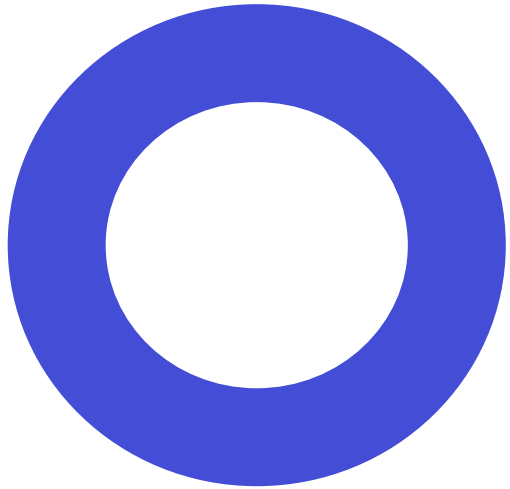
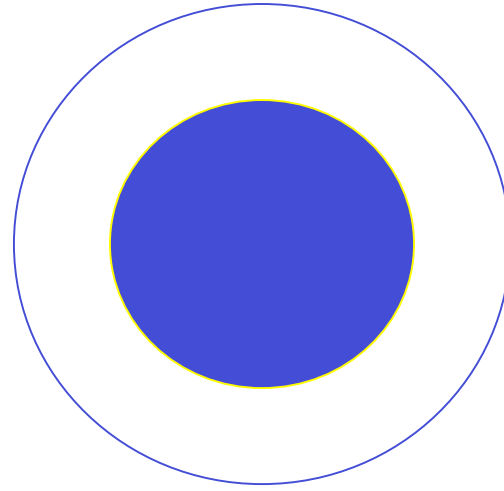
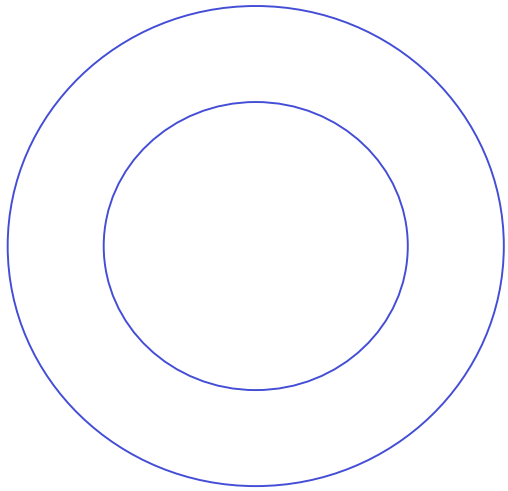
NO

Lymphocyte rich Hodgkin Lymphoma

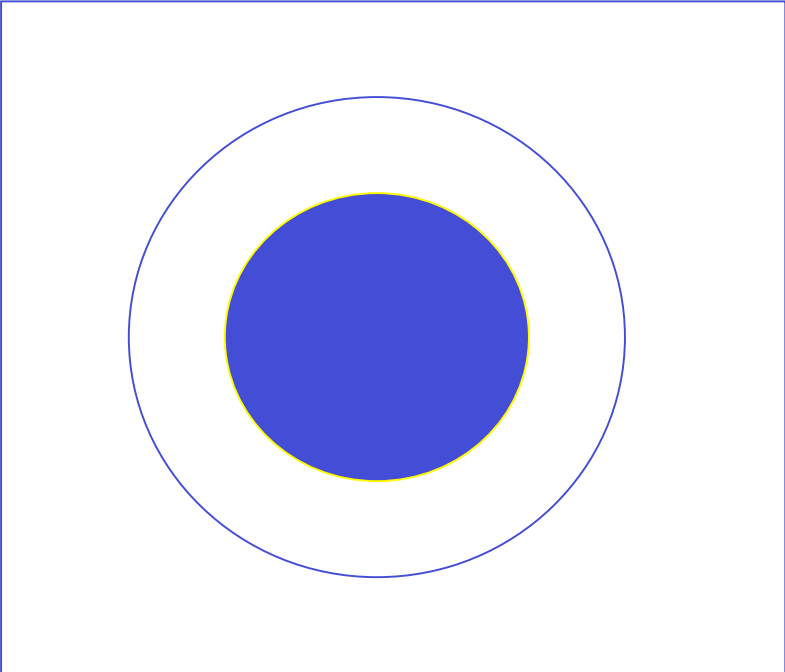
YES

Nodular lymphocyte predominant Hodgkin lymphoma

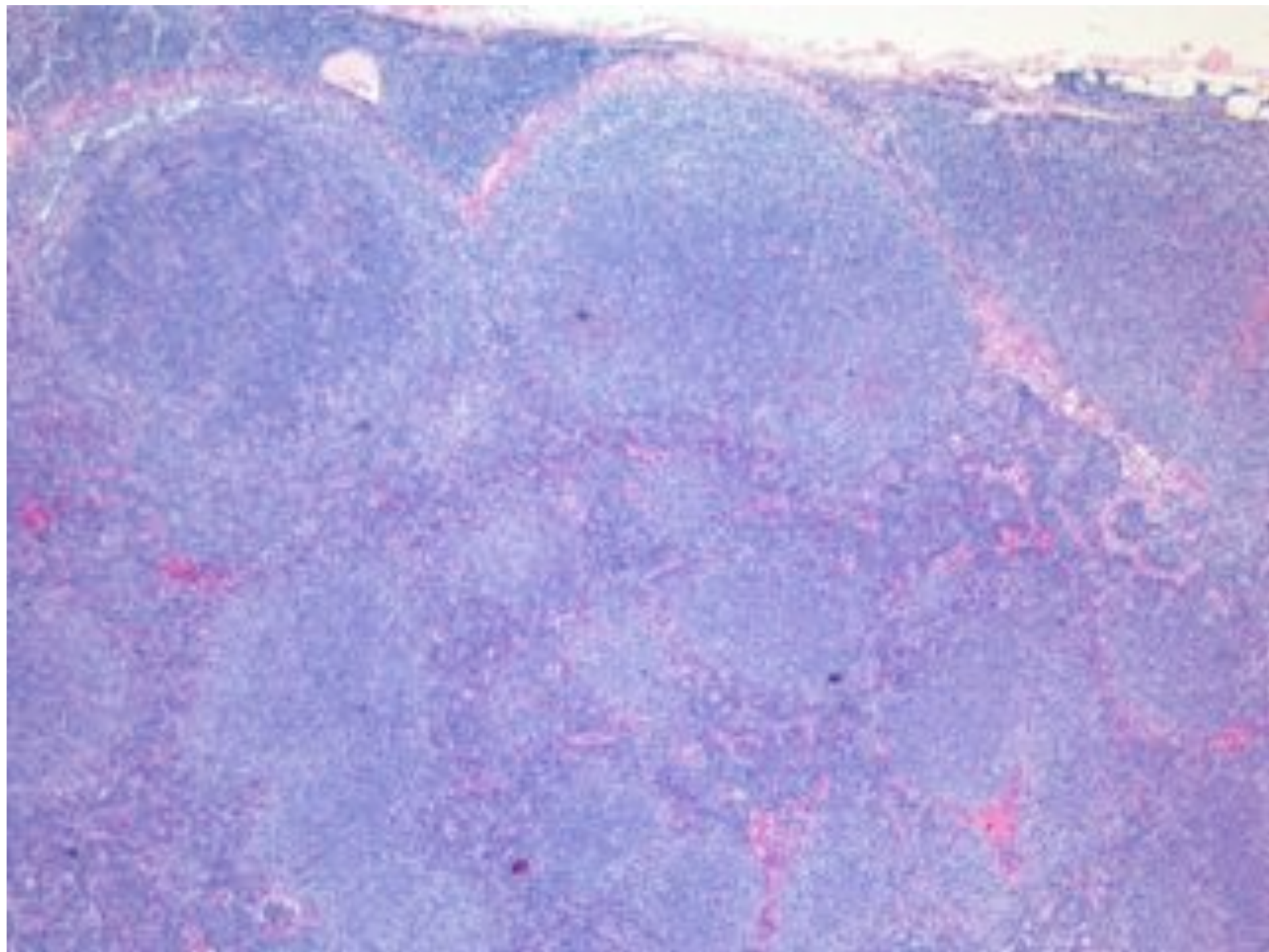
YES

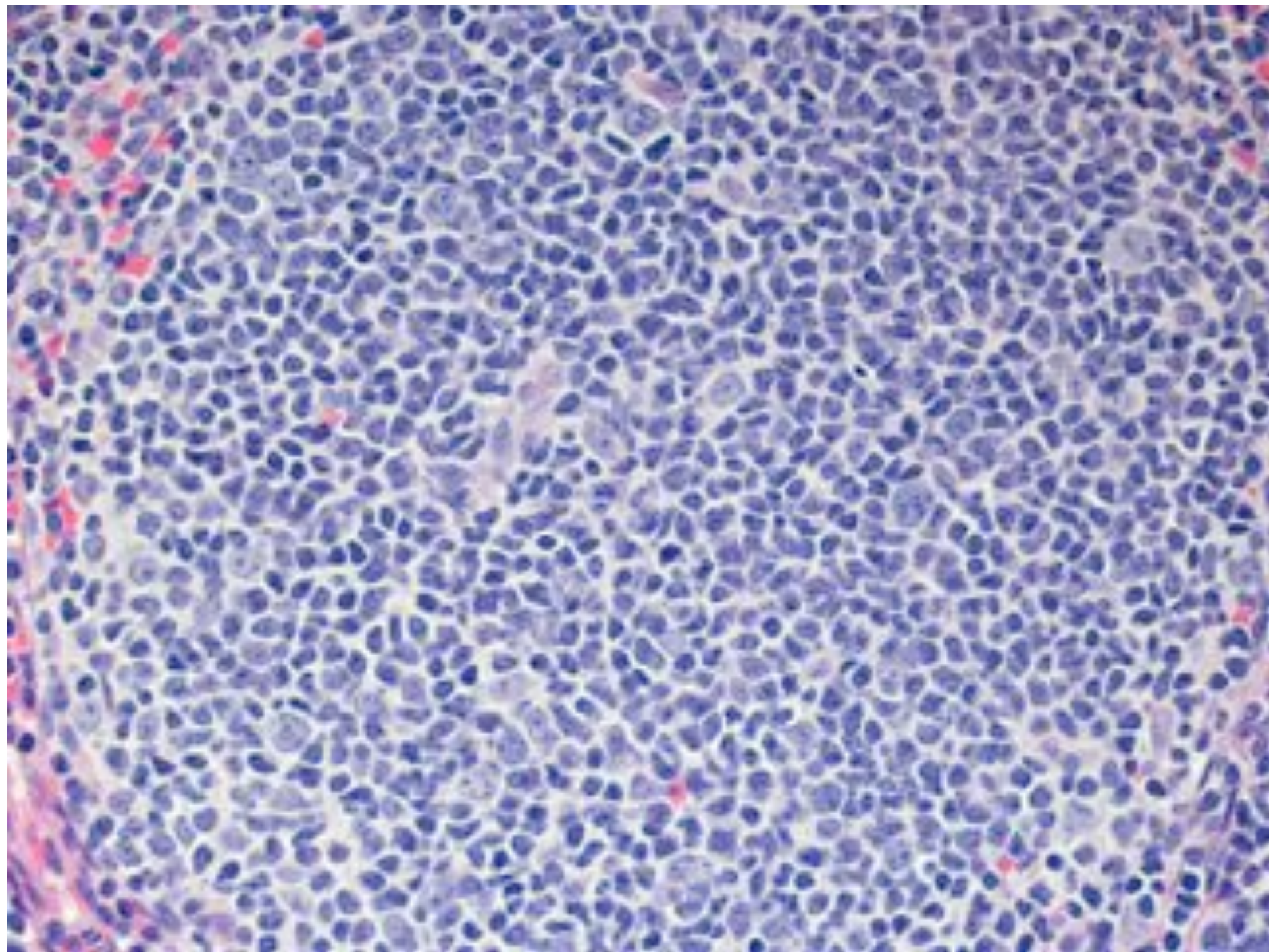


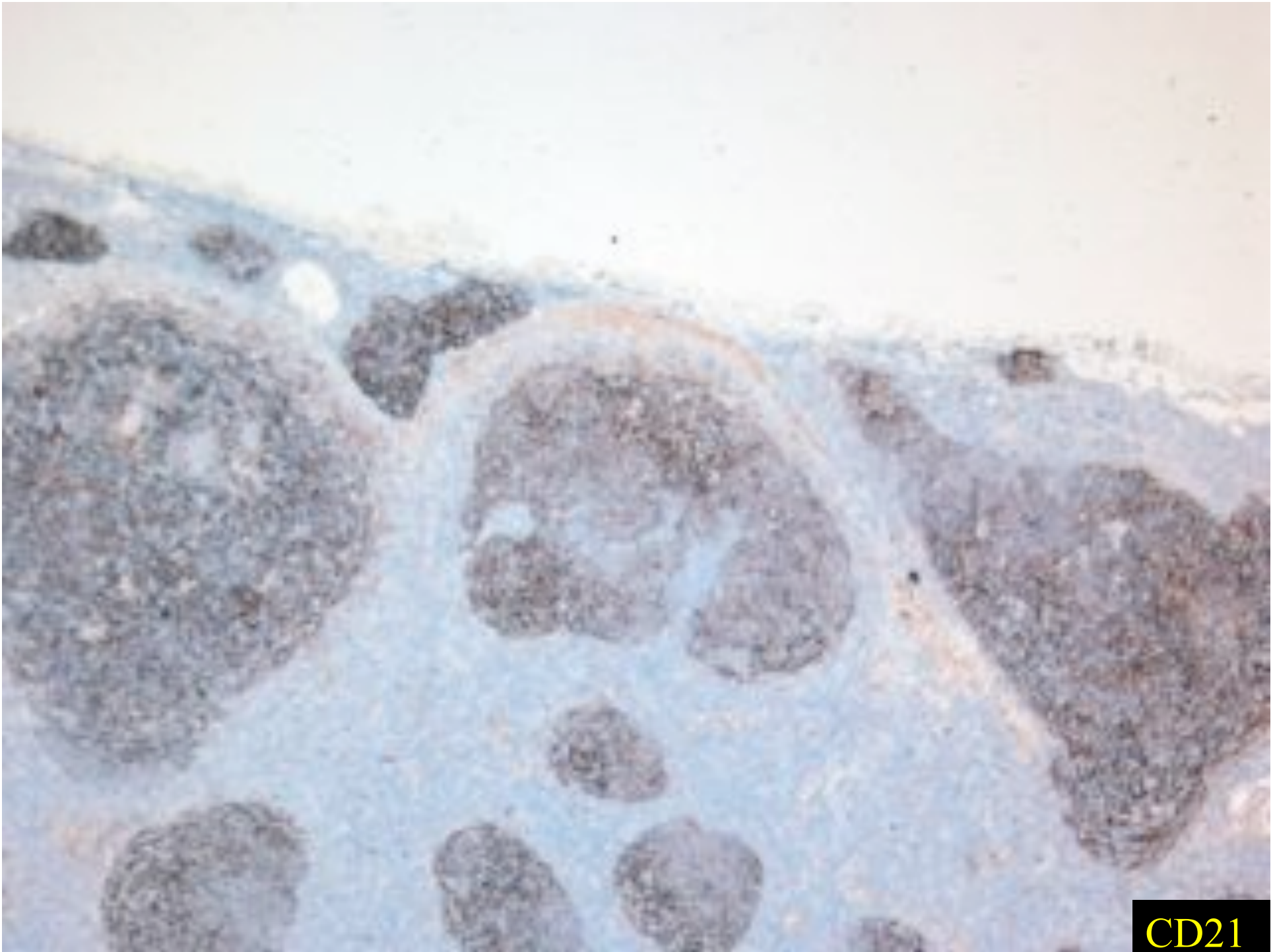
Follicular Lymphoma



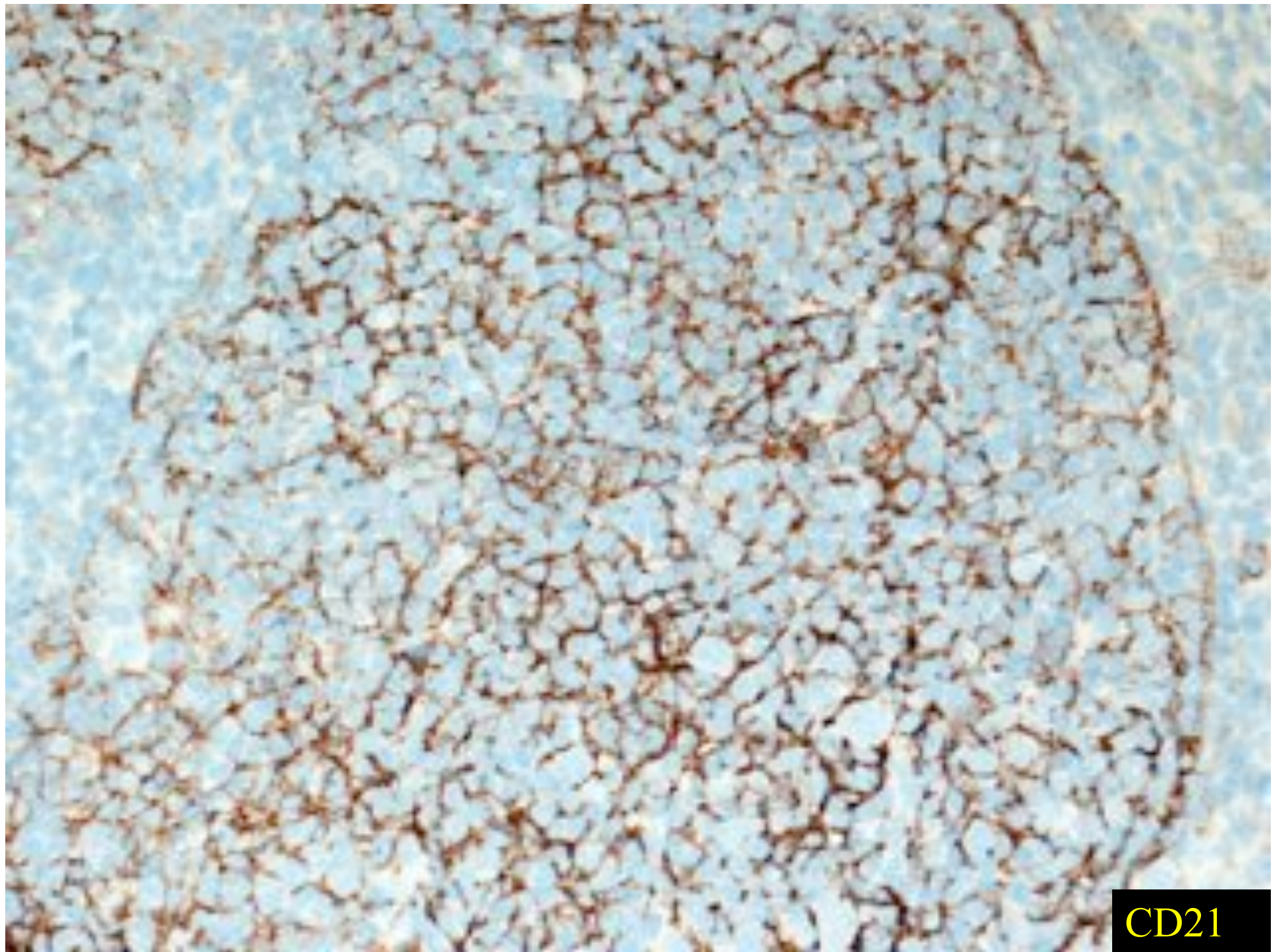




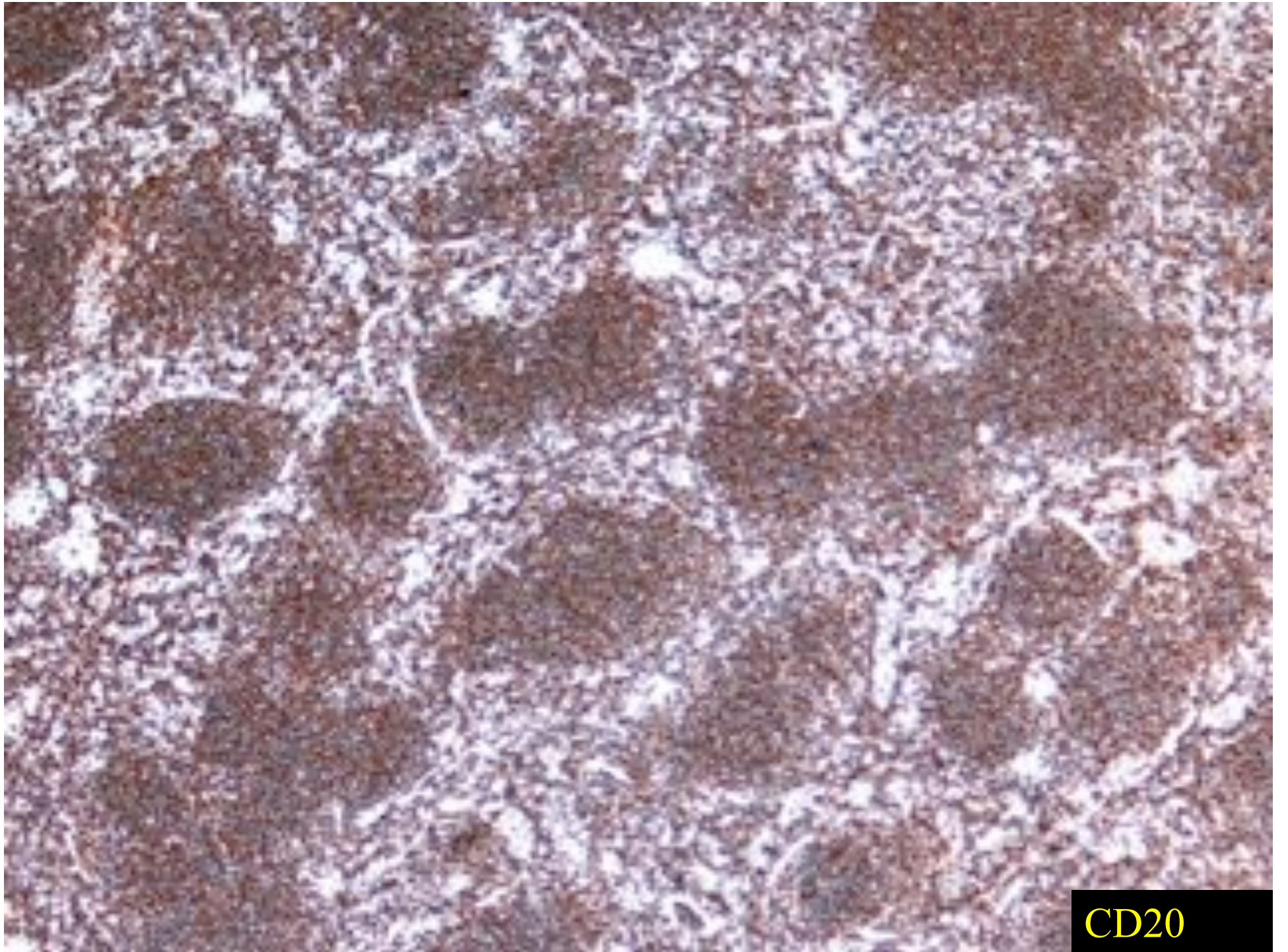




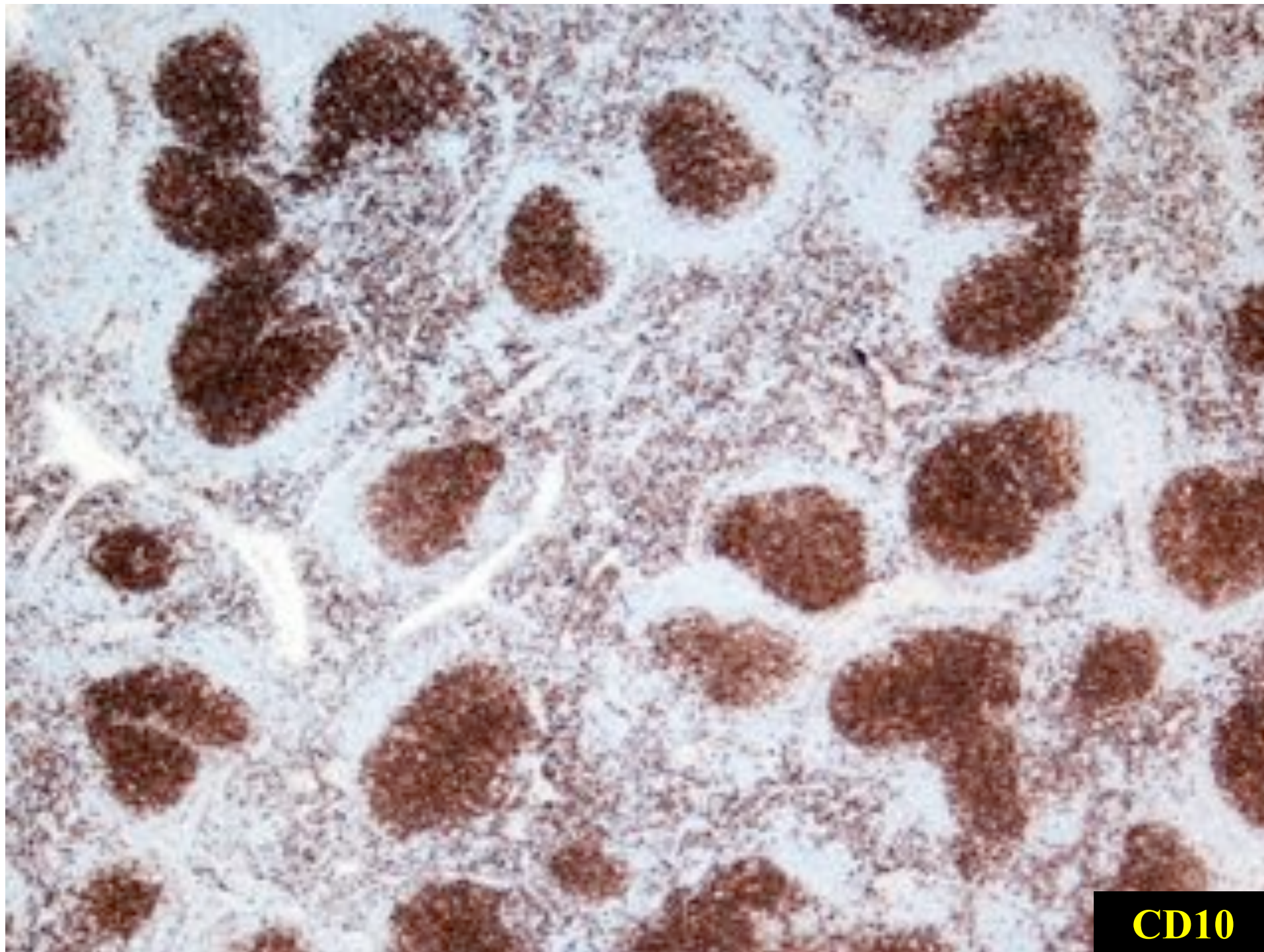
CD21



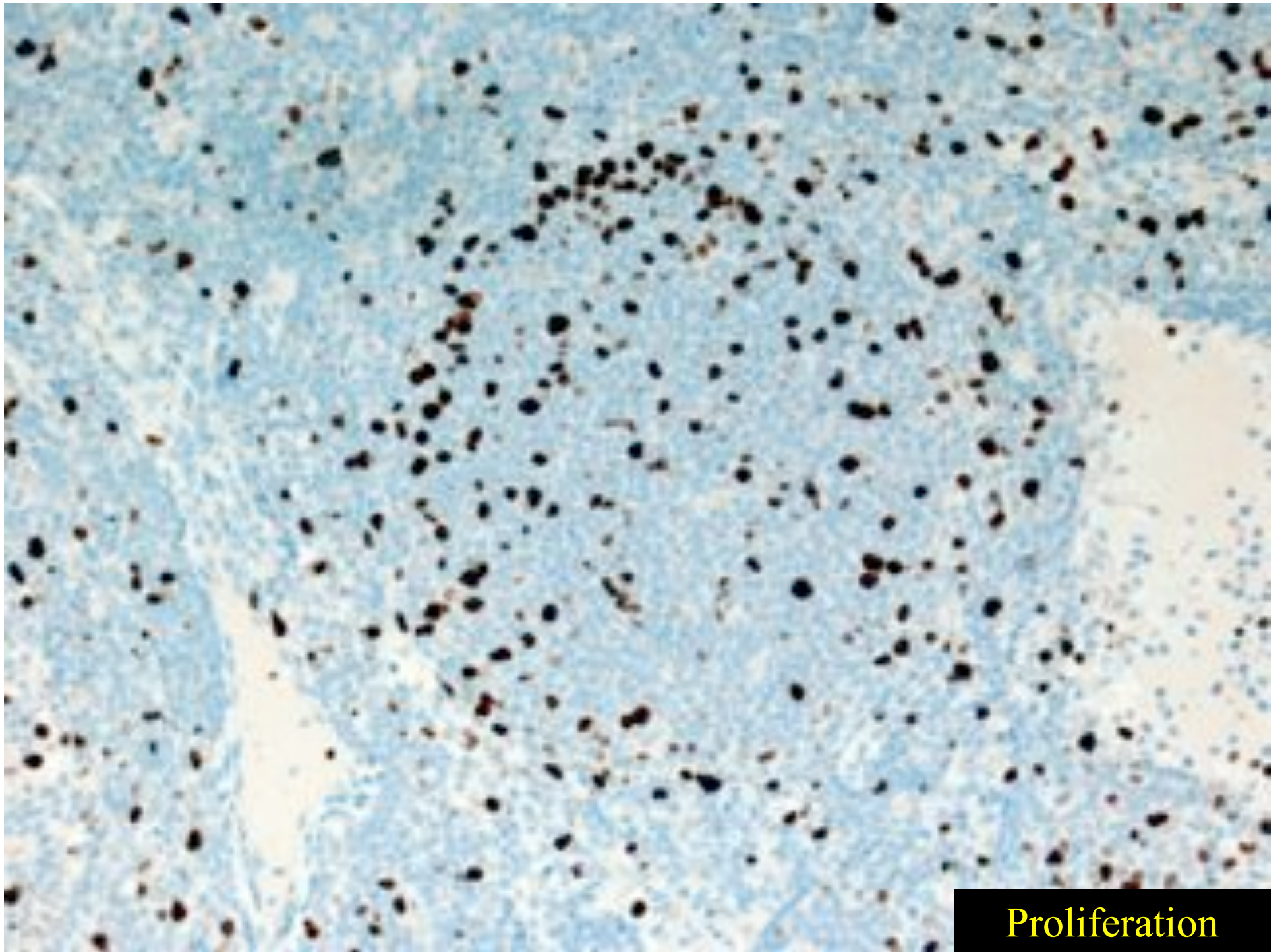
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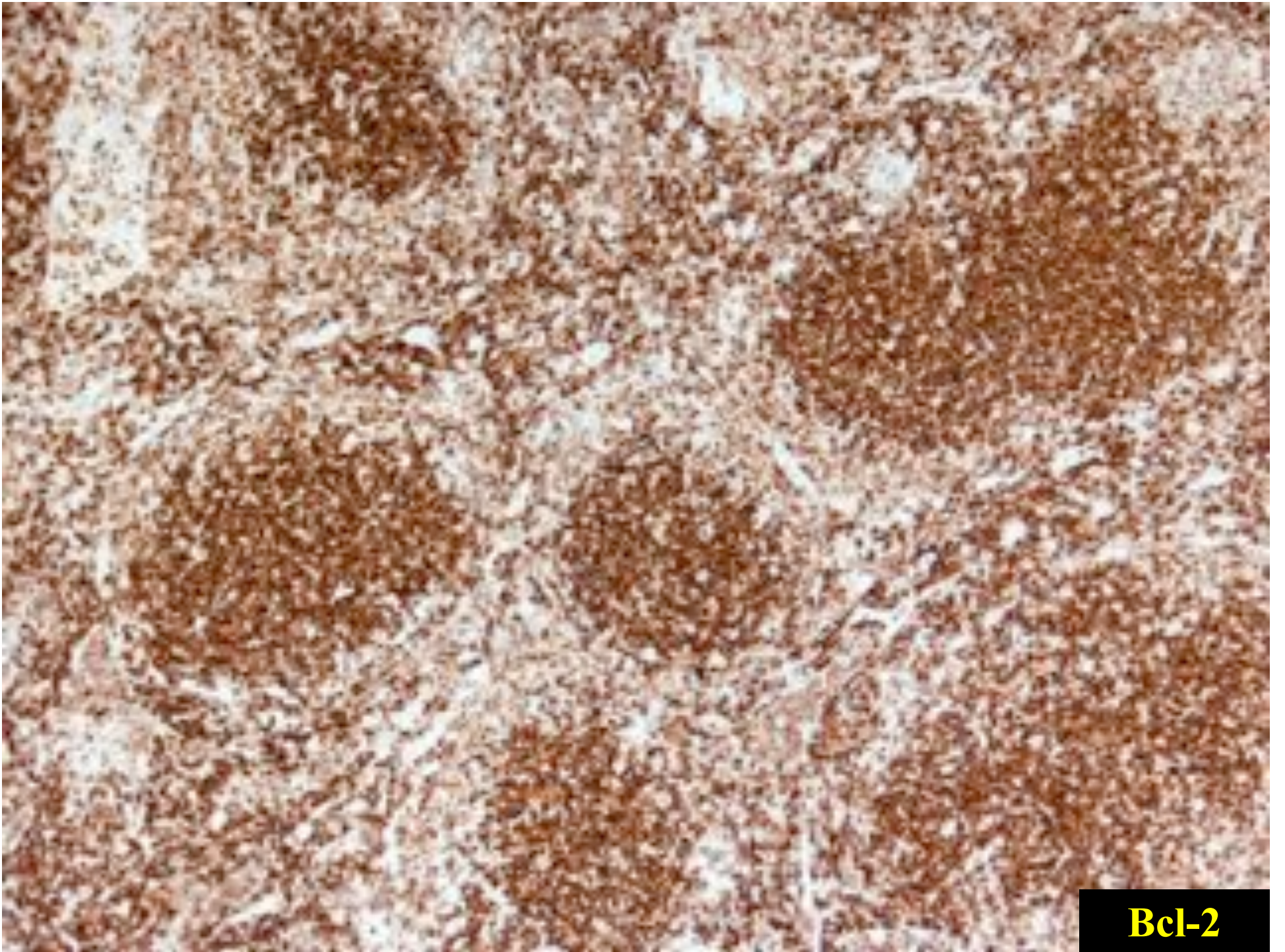
CD20



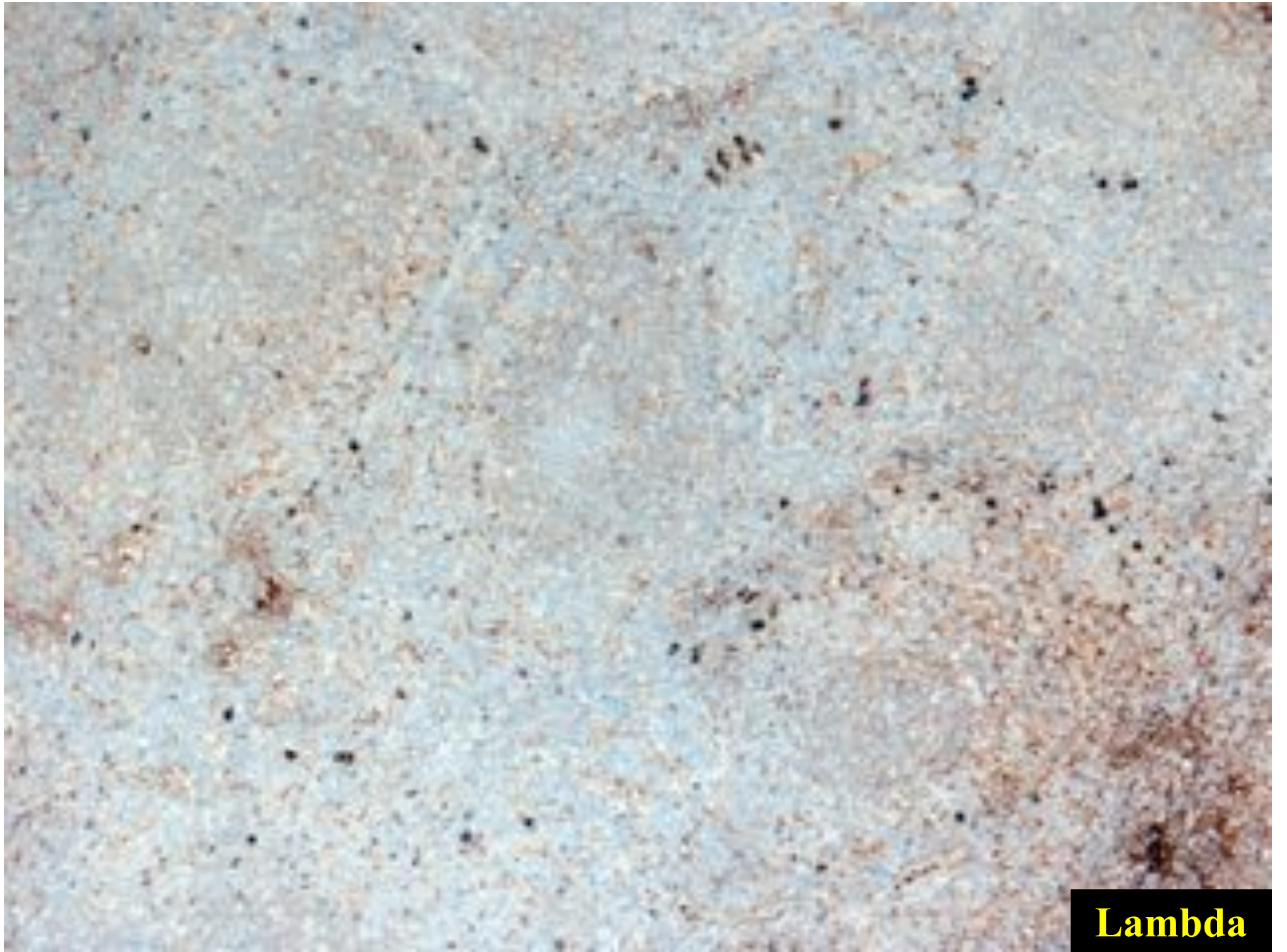
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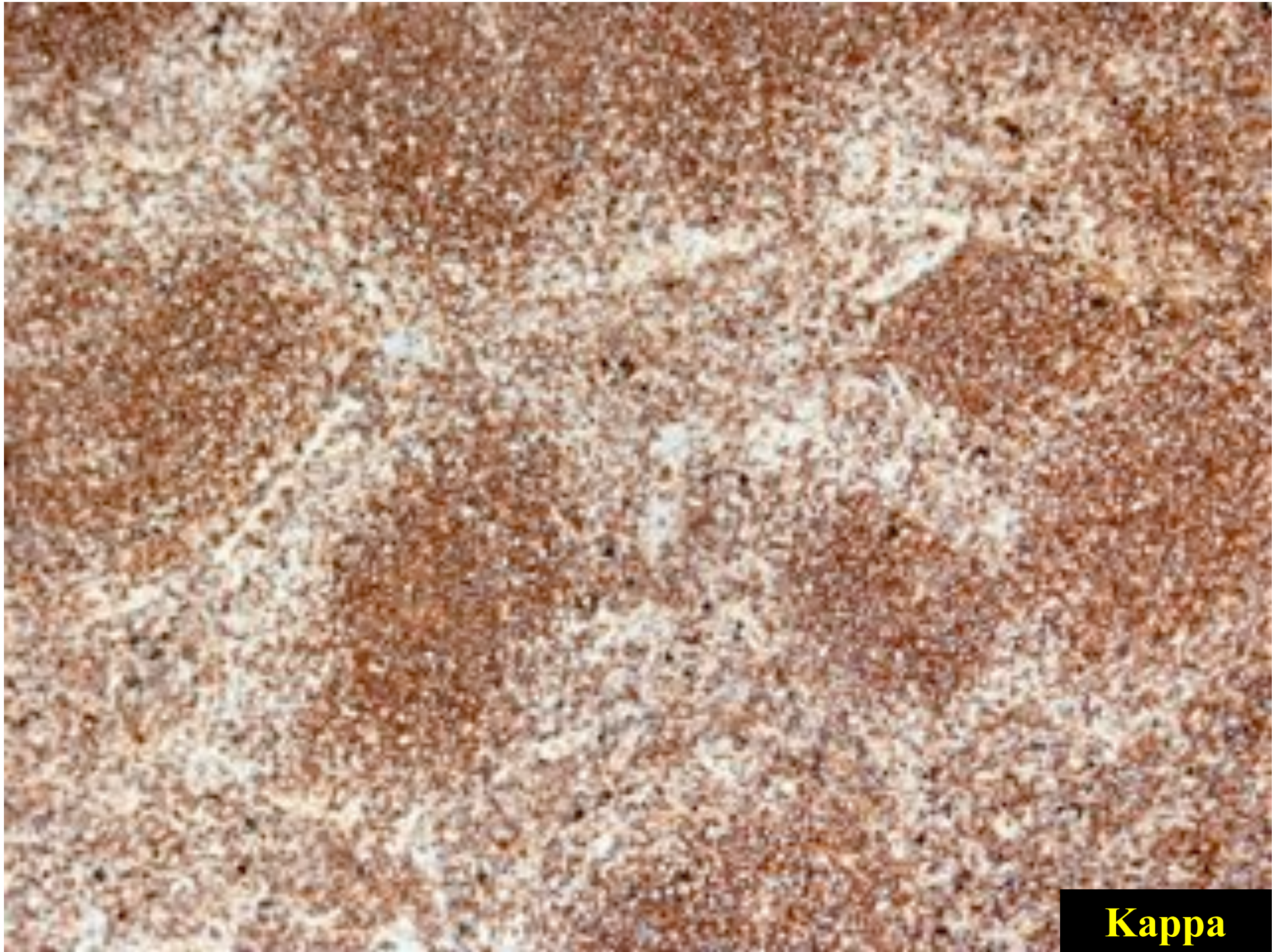


Proliferation



Bcl-2





Kappa

Follicular Lymphoma

Grading

Definition

Grade 1

0.5 centroblasts per hpf*

Grade 2

6-15 centroblasts per hpf*

Grade 3

>15 centroblasts per hpf*

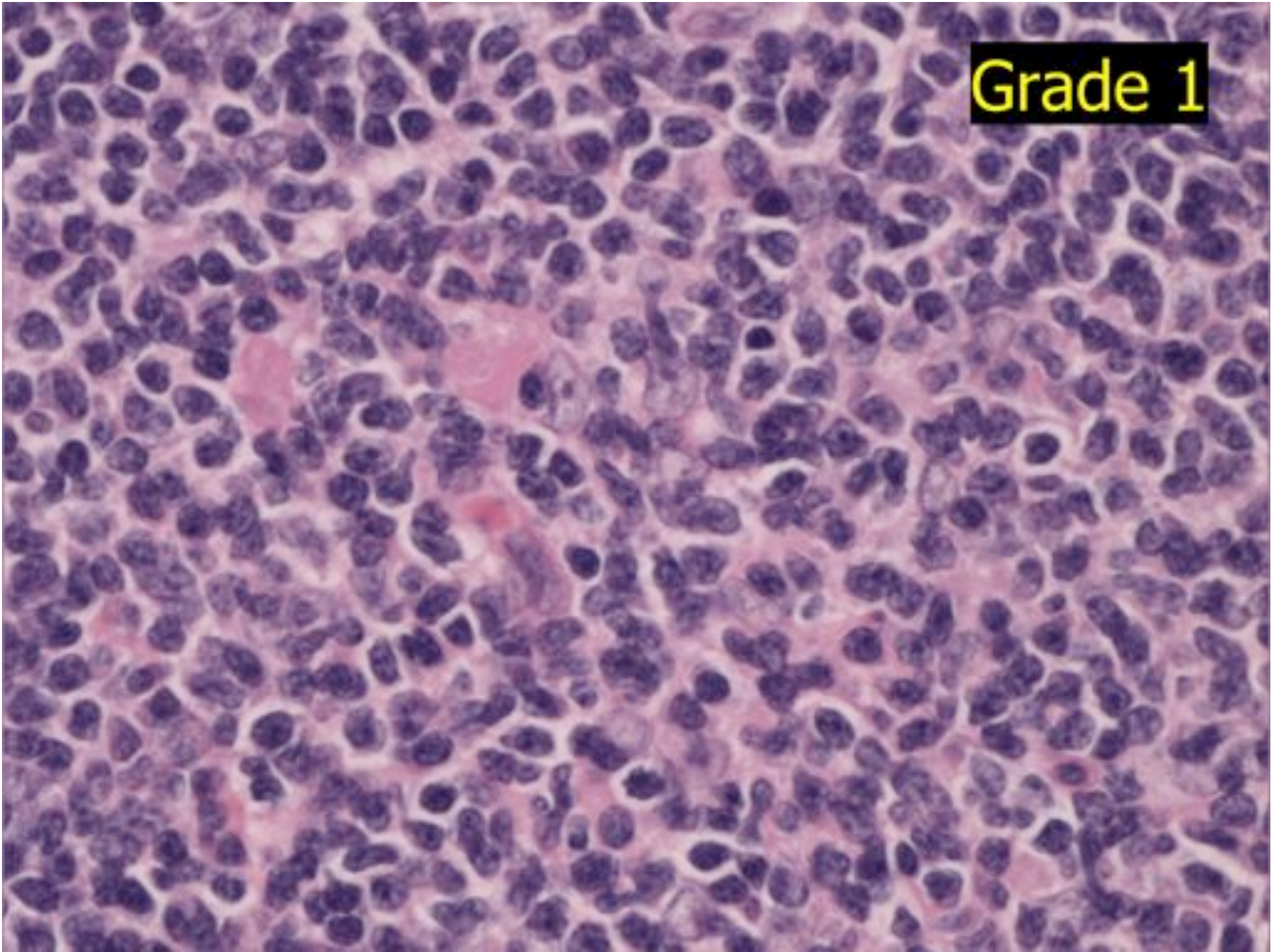
3a

Centrocytes present

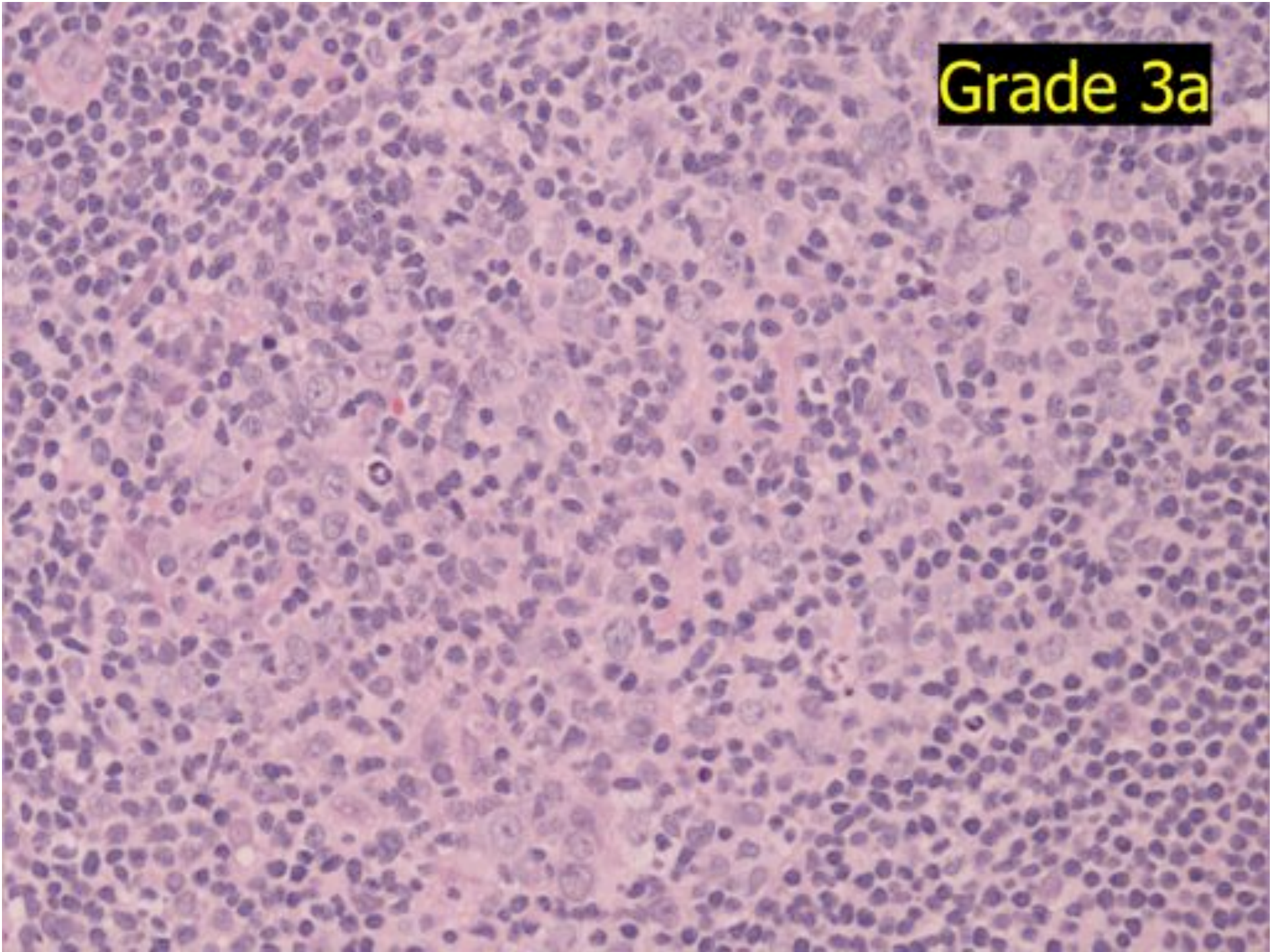
3b

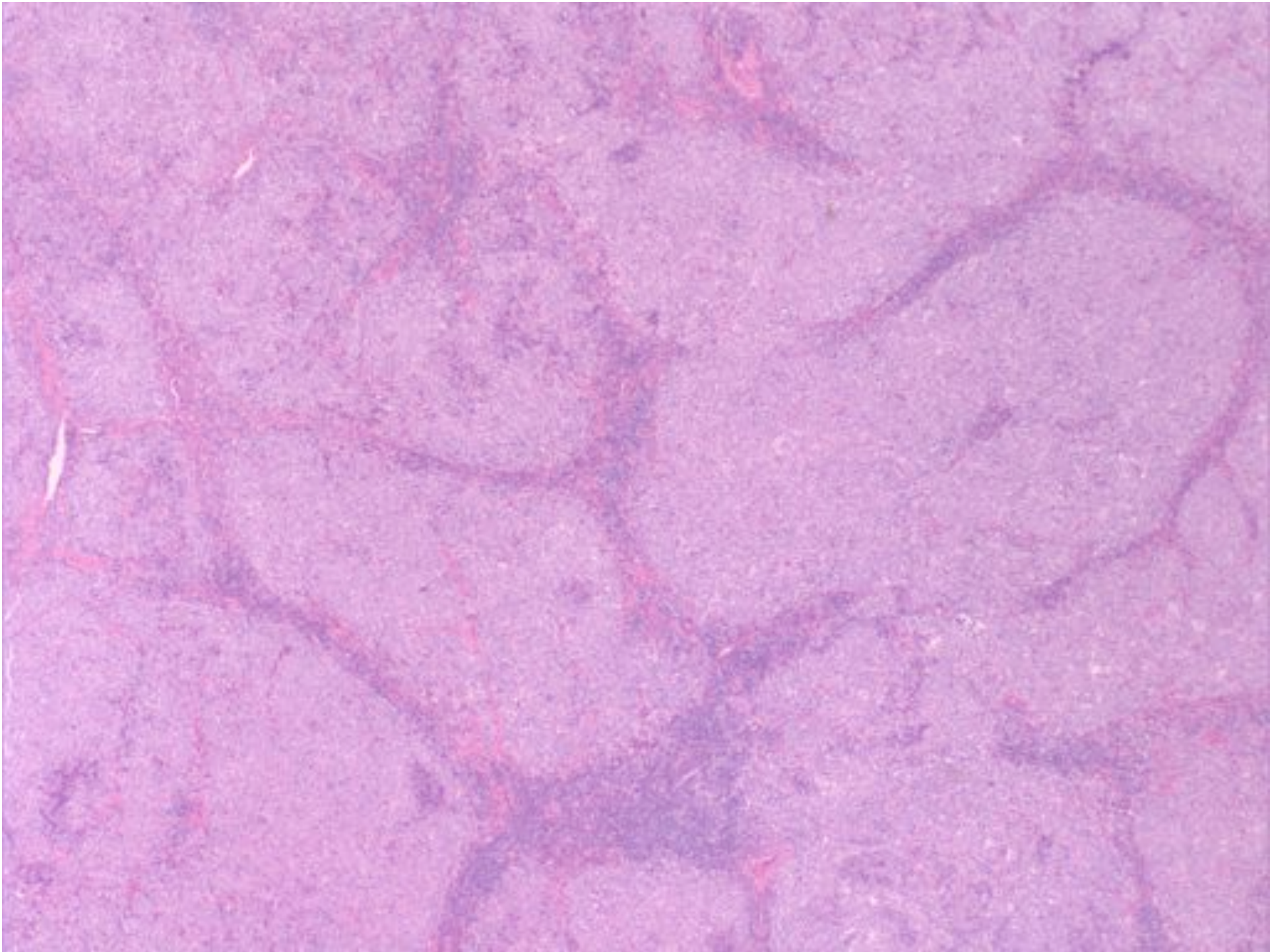
Solid sheets of centroblasts

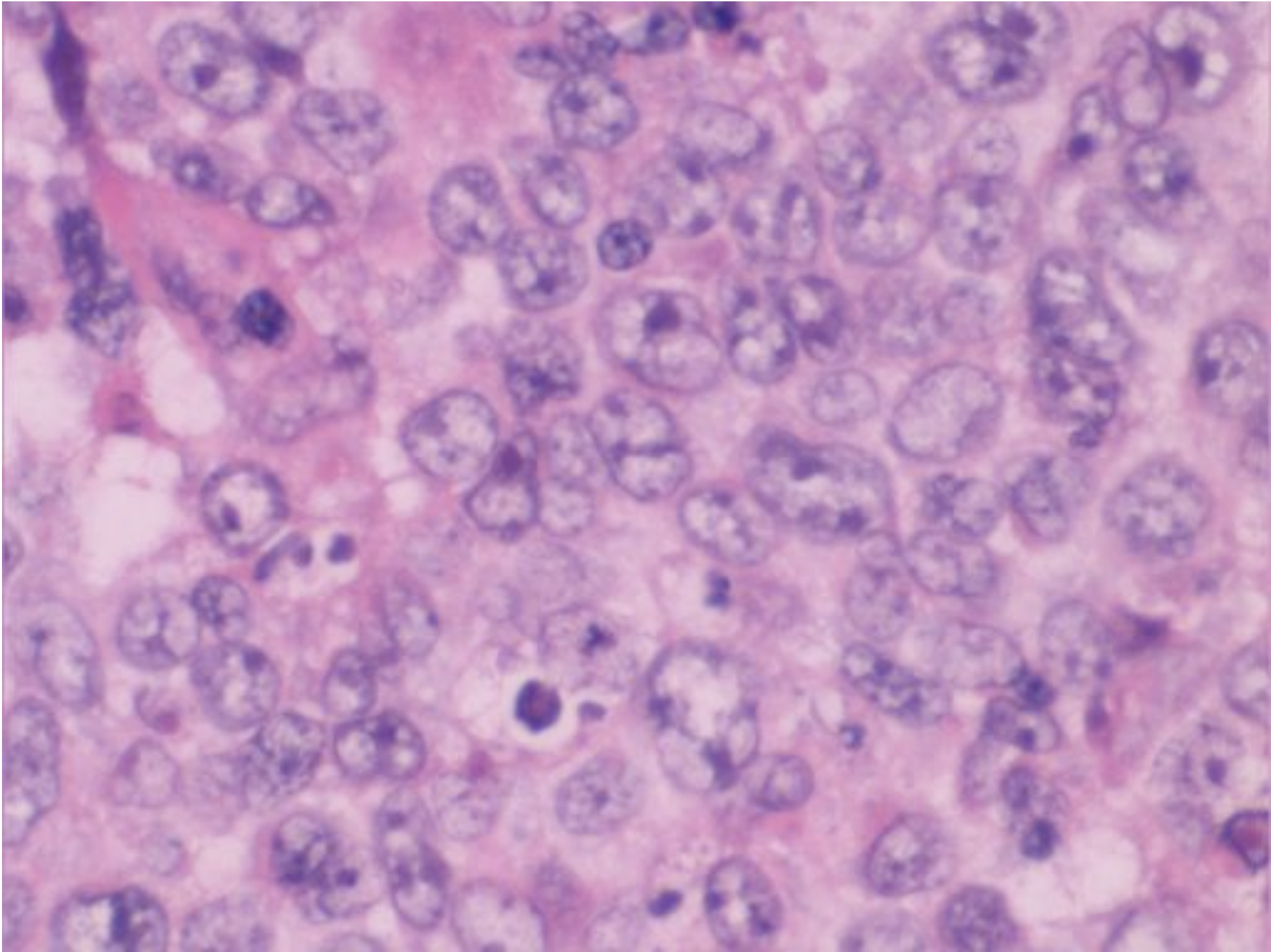
Grade 1



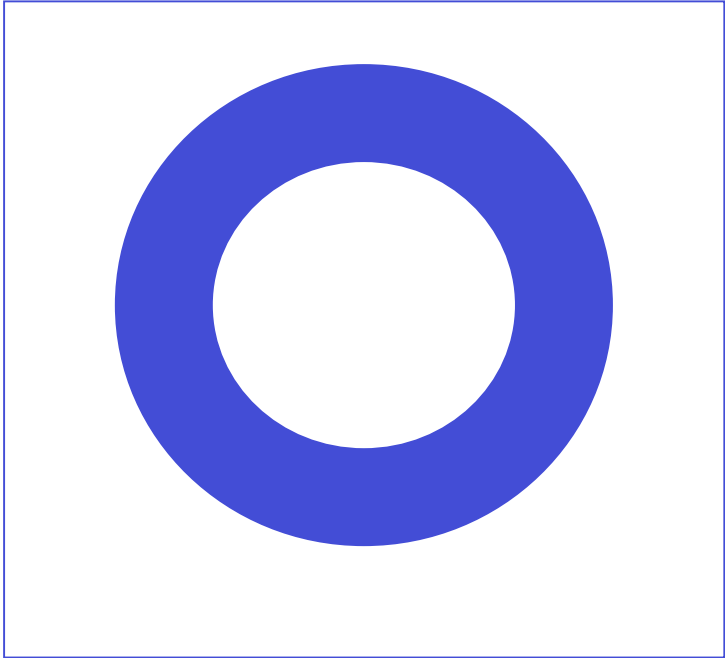
Grade 3a

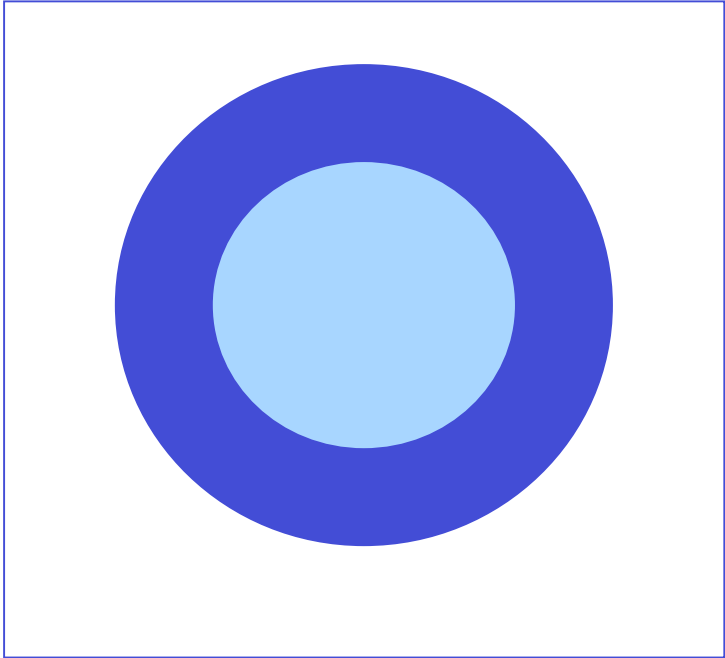






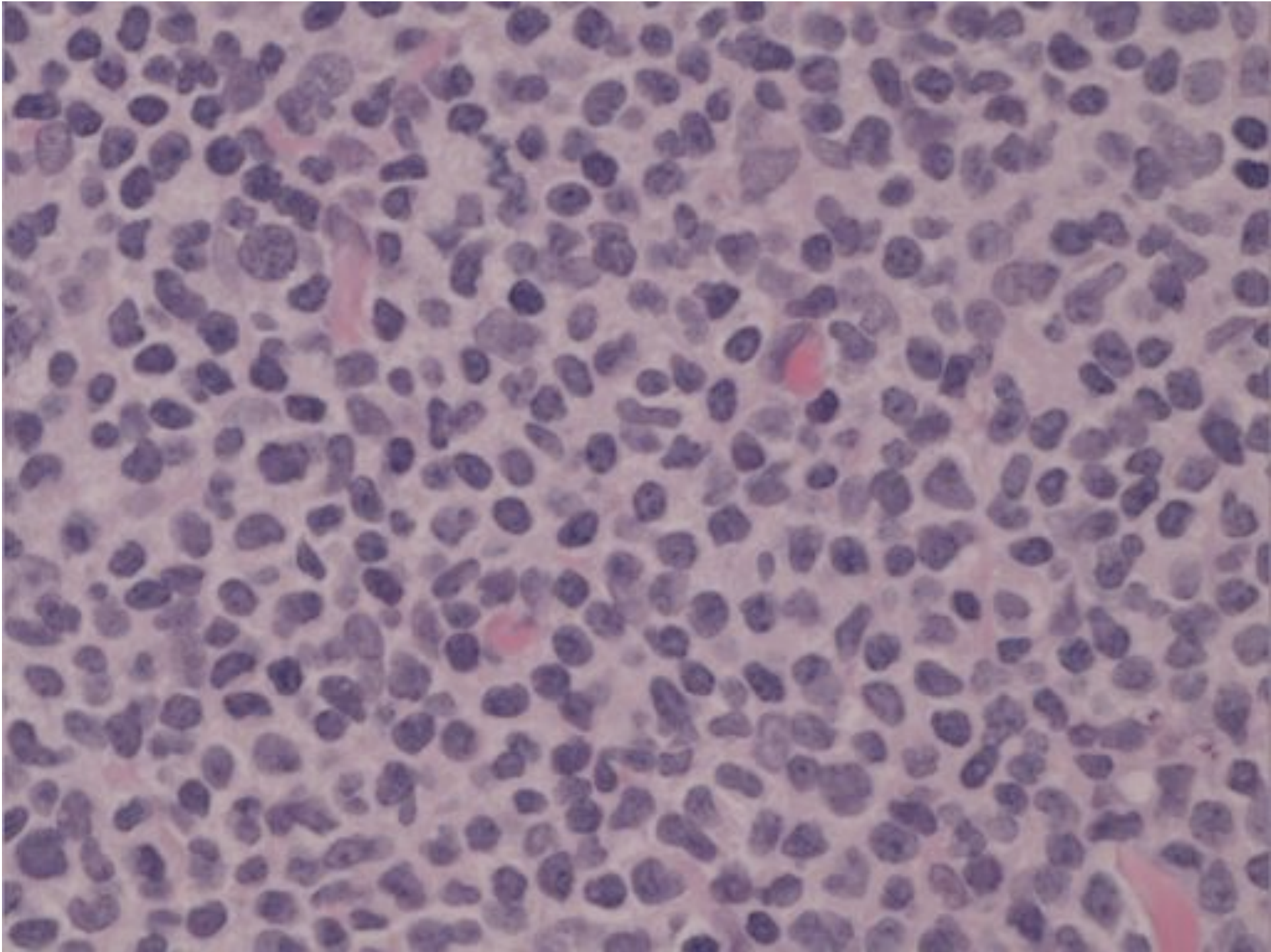
Mantle Cell Lymphoma

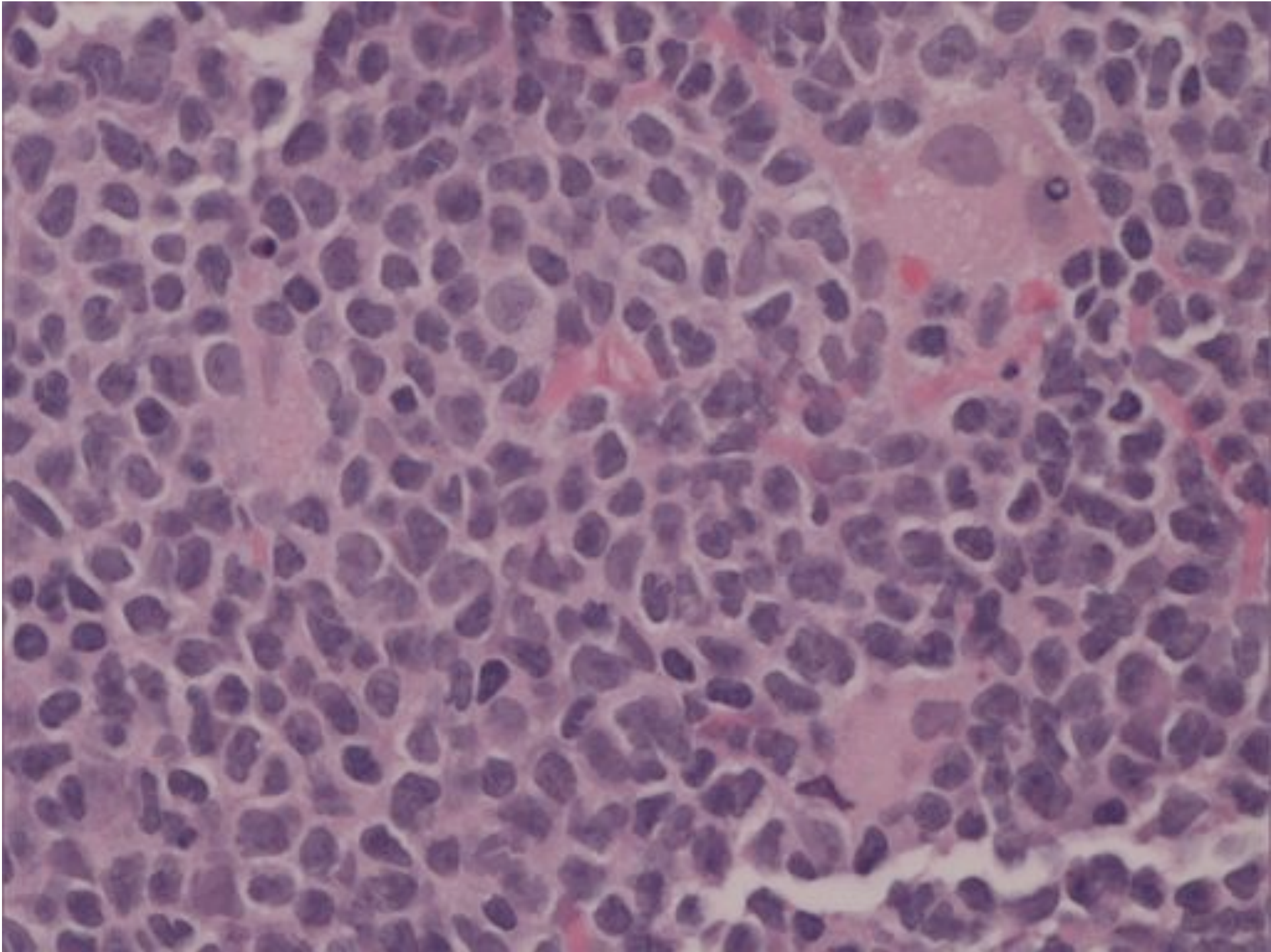




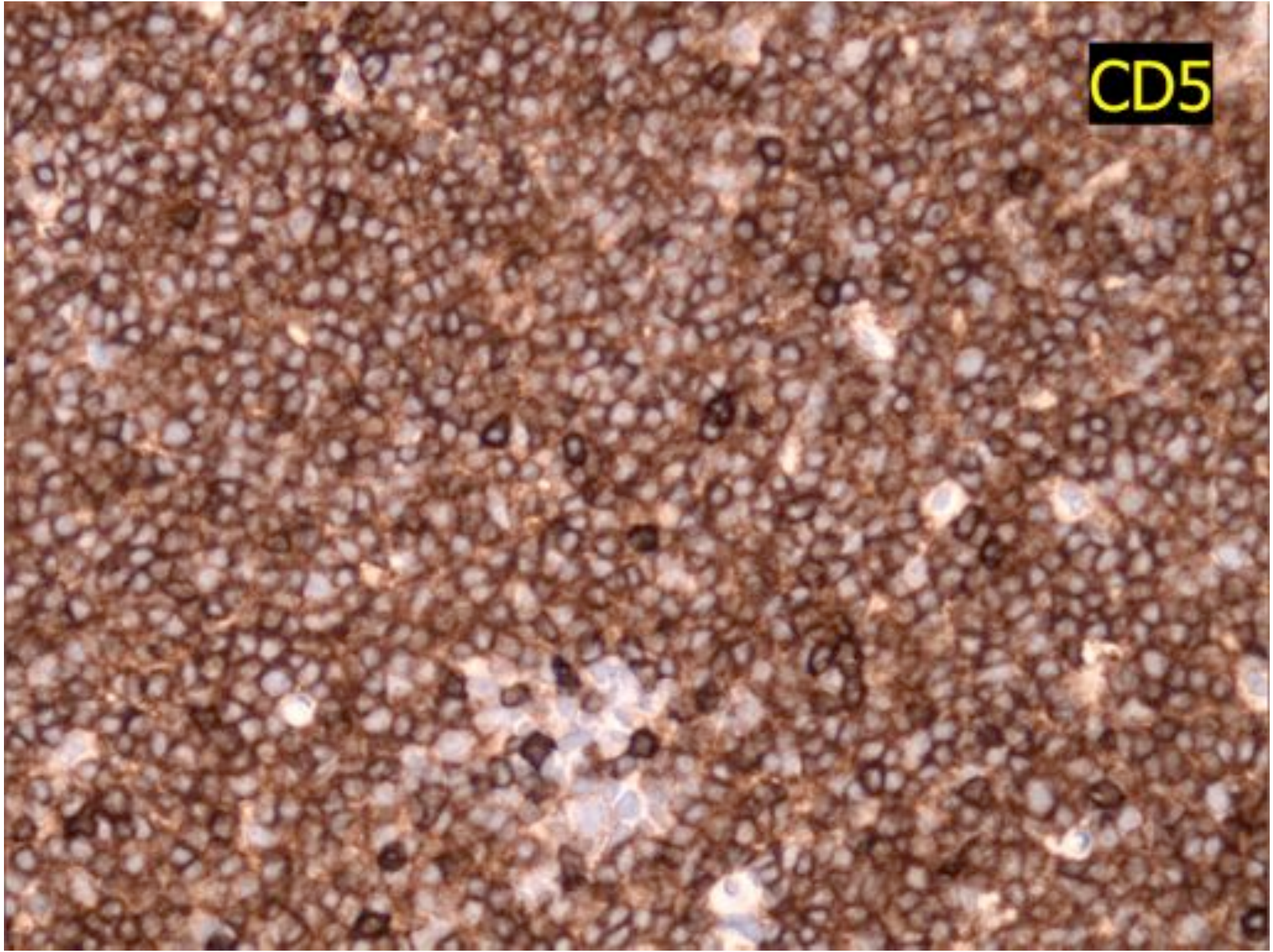
COLONISATION



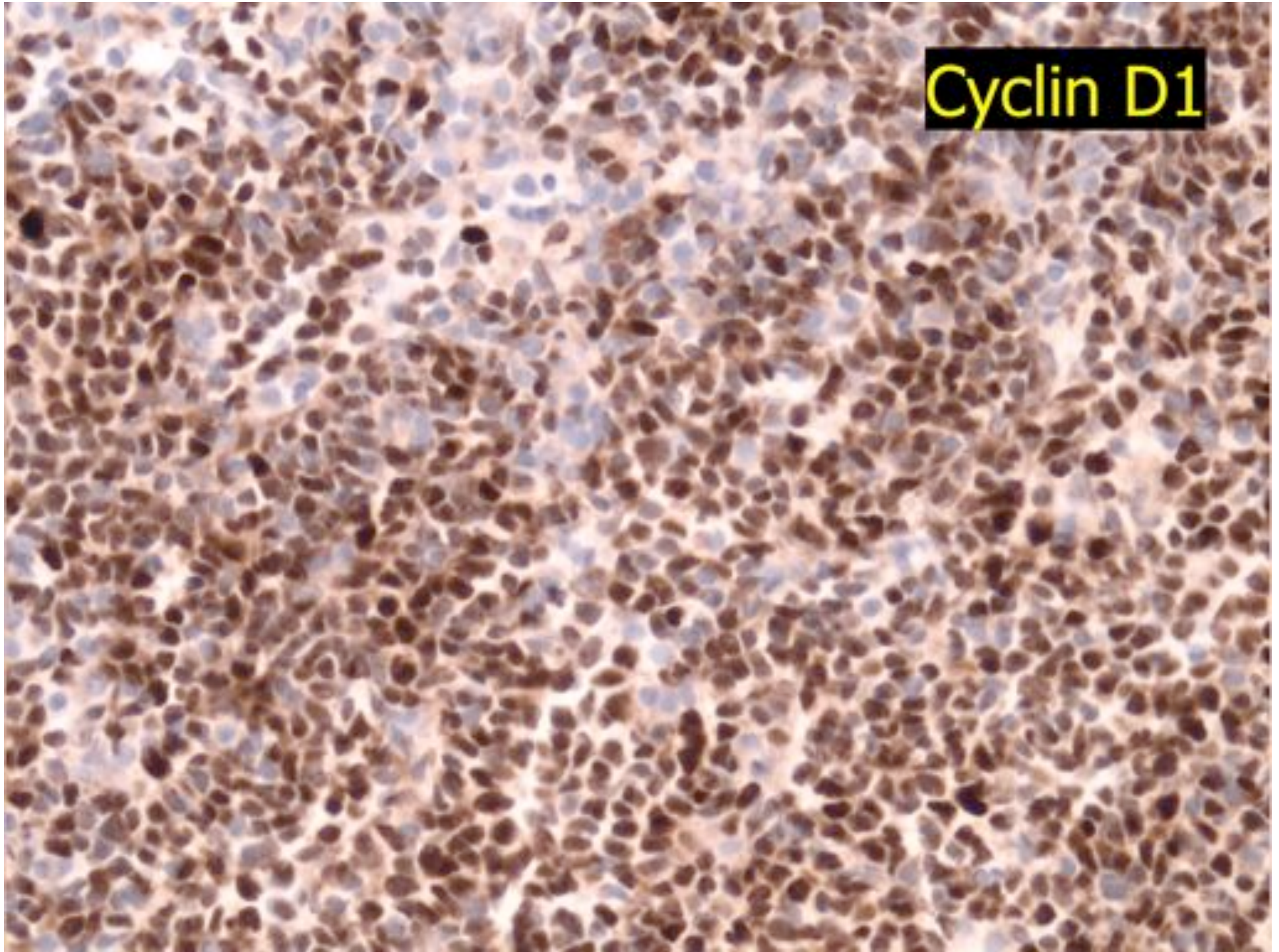


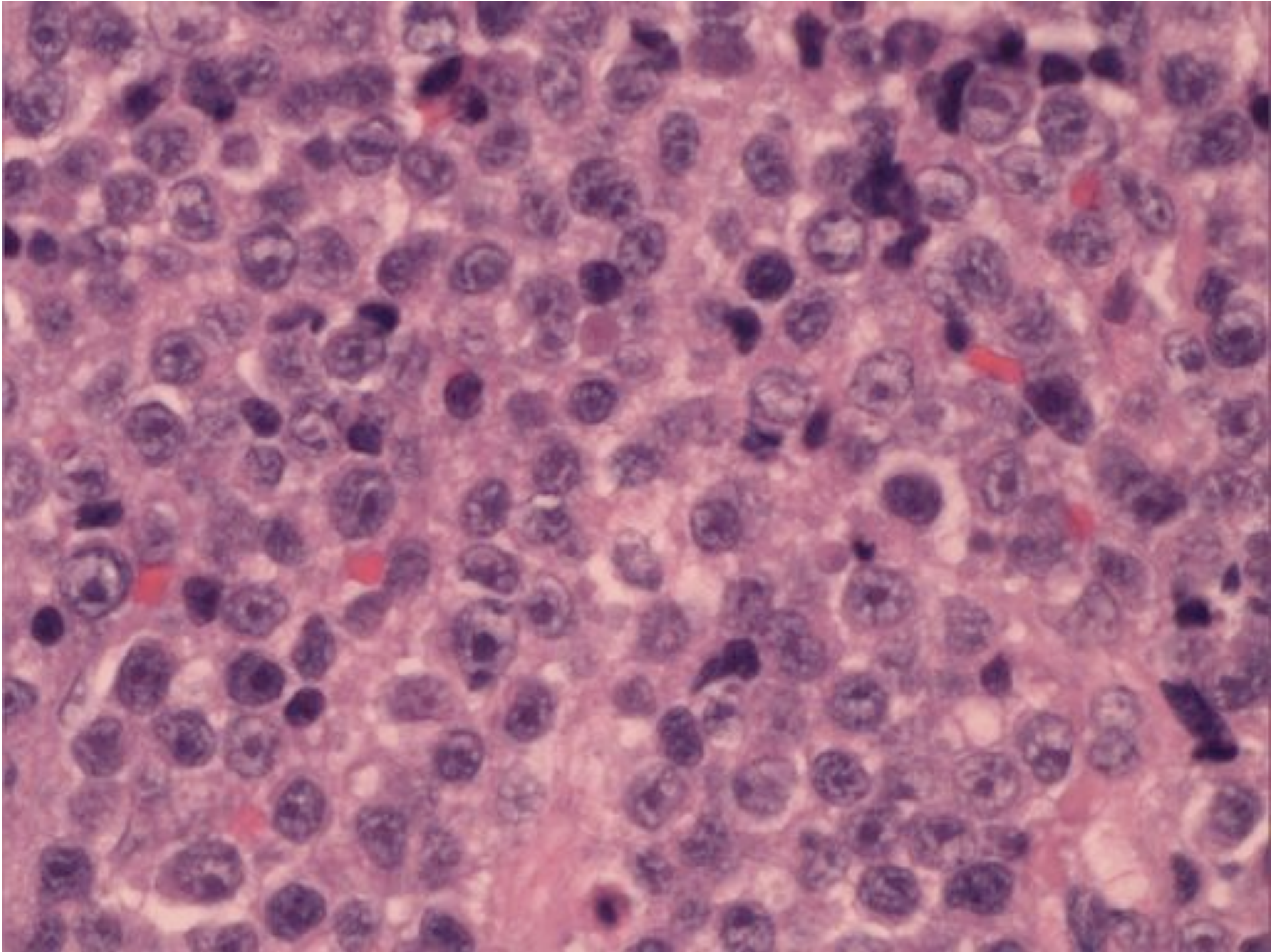


CD5

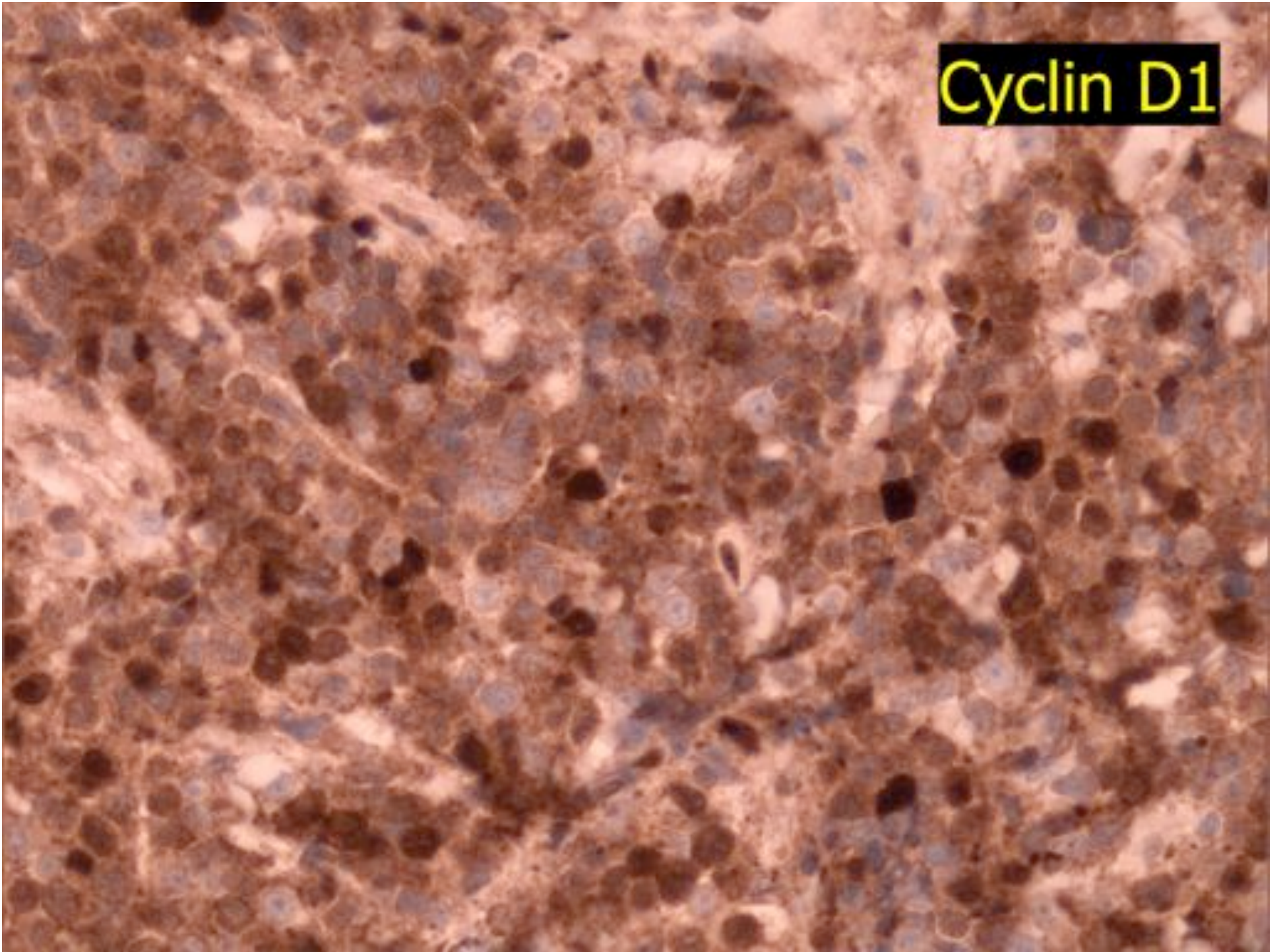


Cyclin D1





Cyclin D1

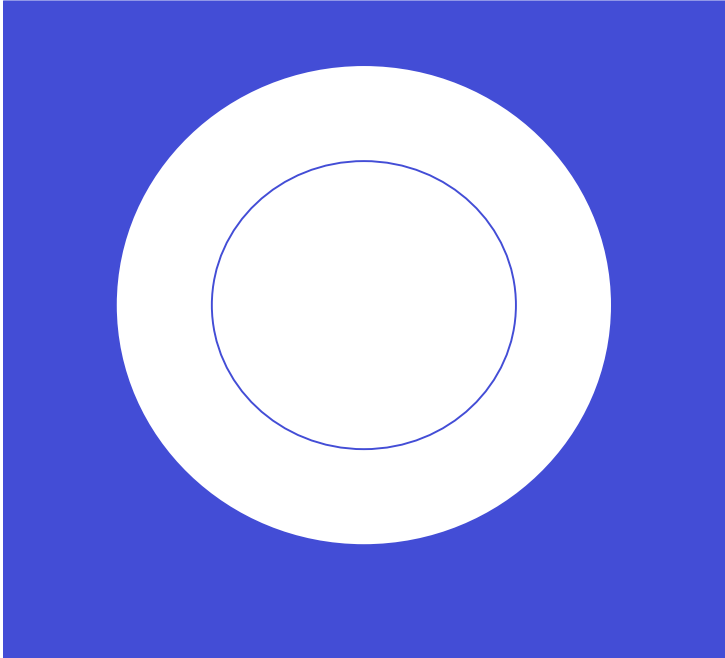


Cyclin D1

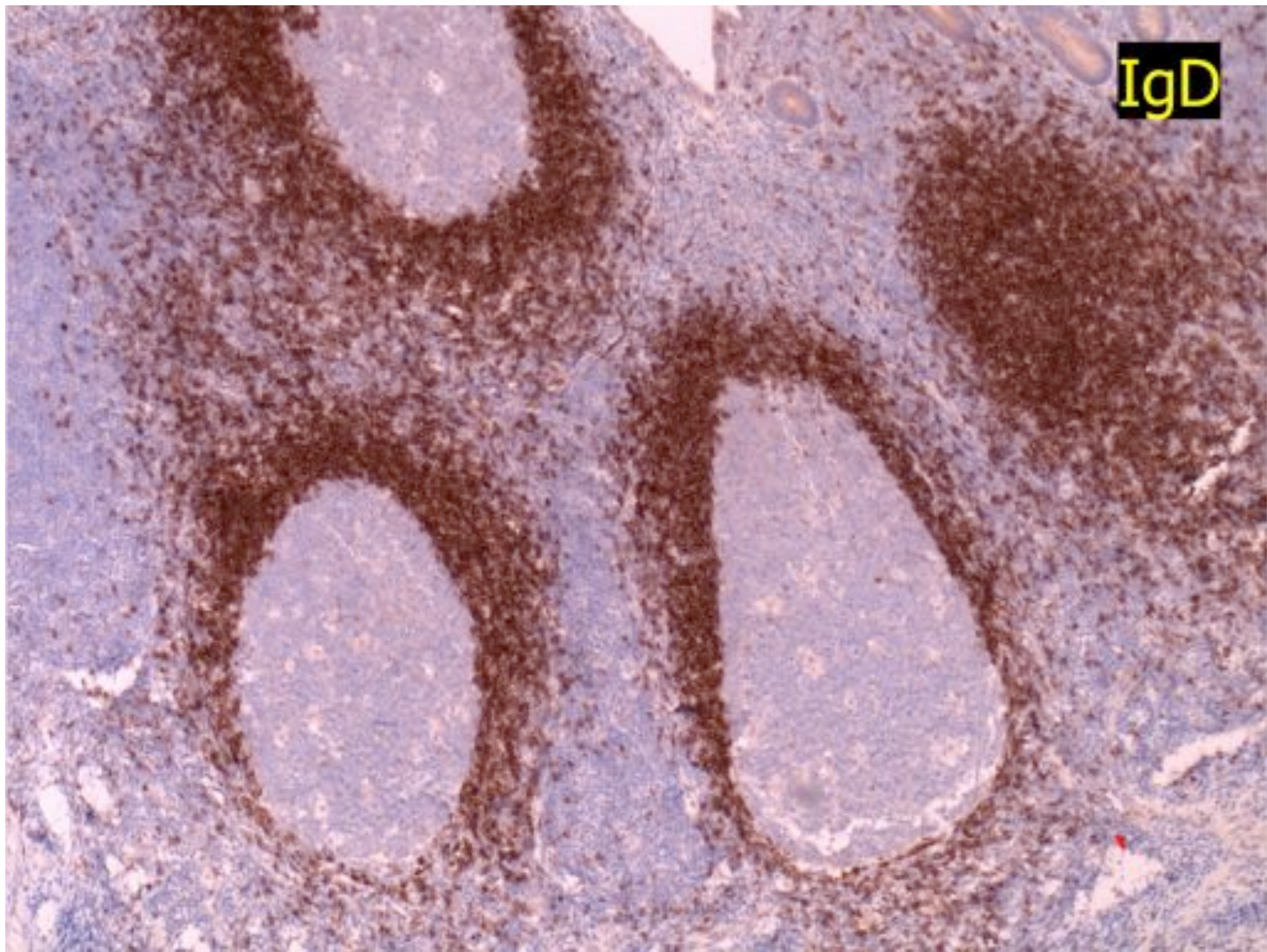
- Mantle cell lymphoma
- Plasma cell tumours
- Hairy cell leukaemia
- Proliferation centre

Extranodal Marginal Zone Lymphoma

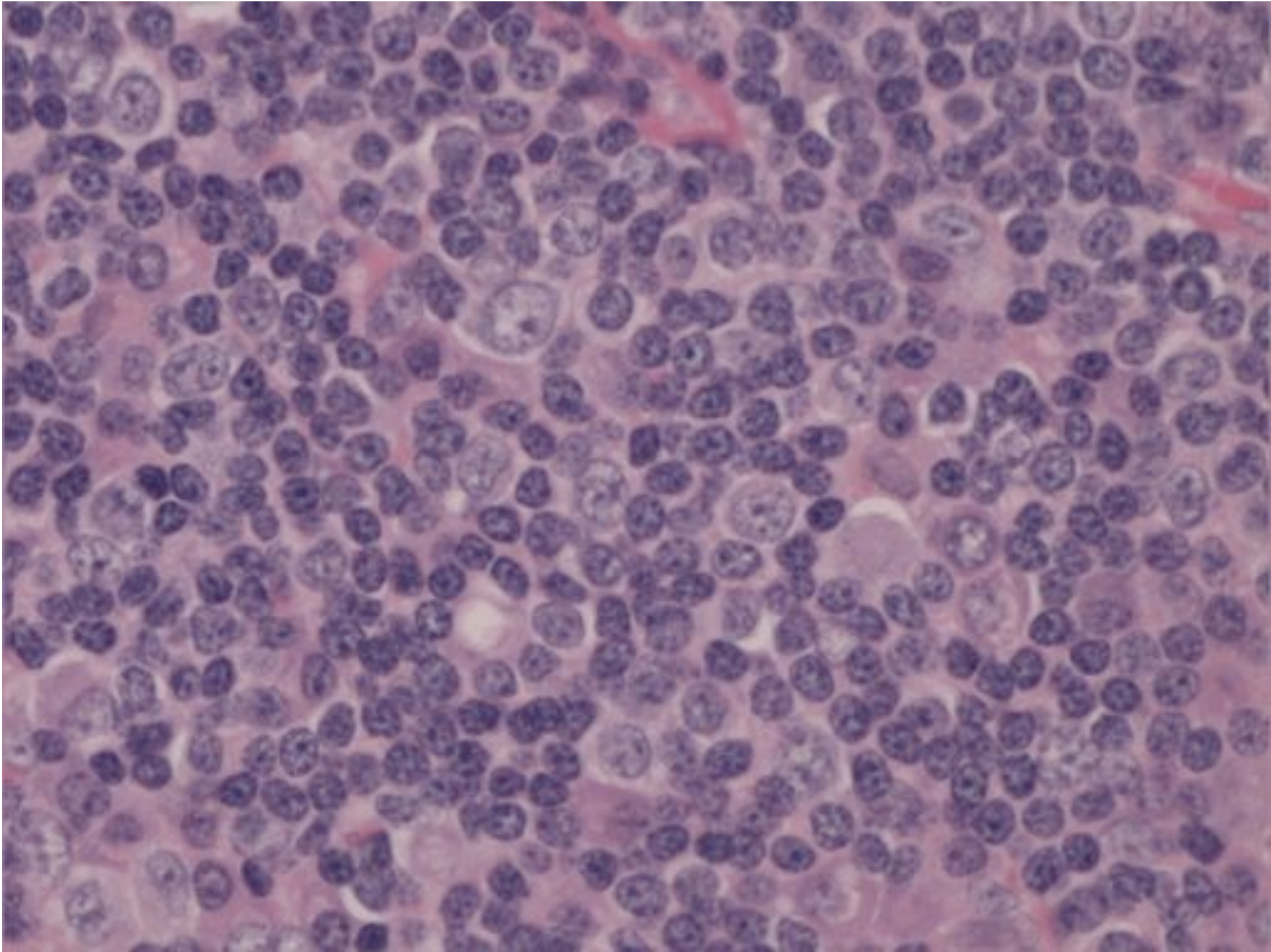
(MALT lymphoma)

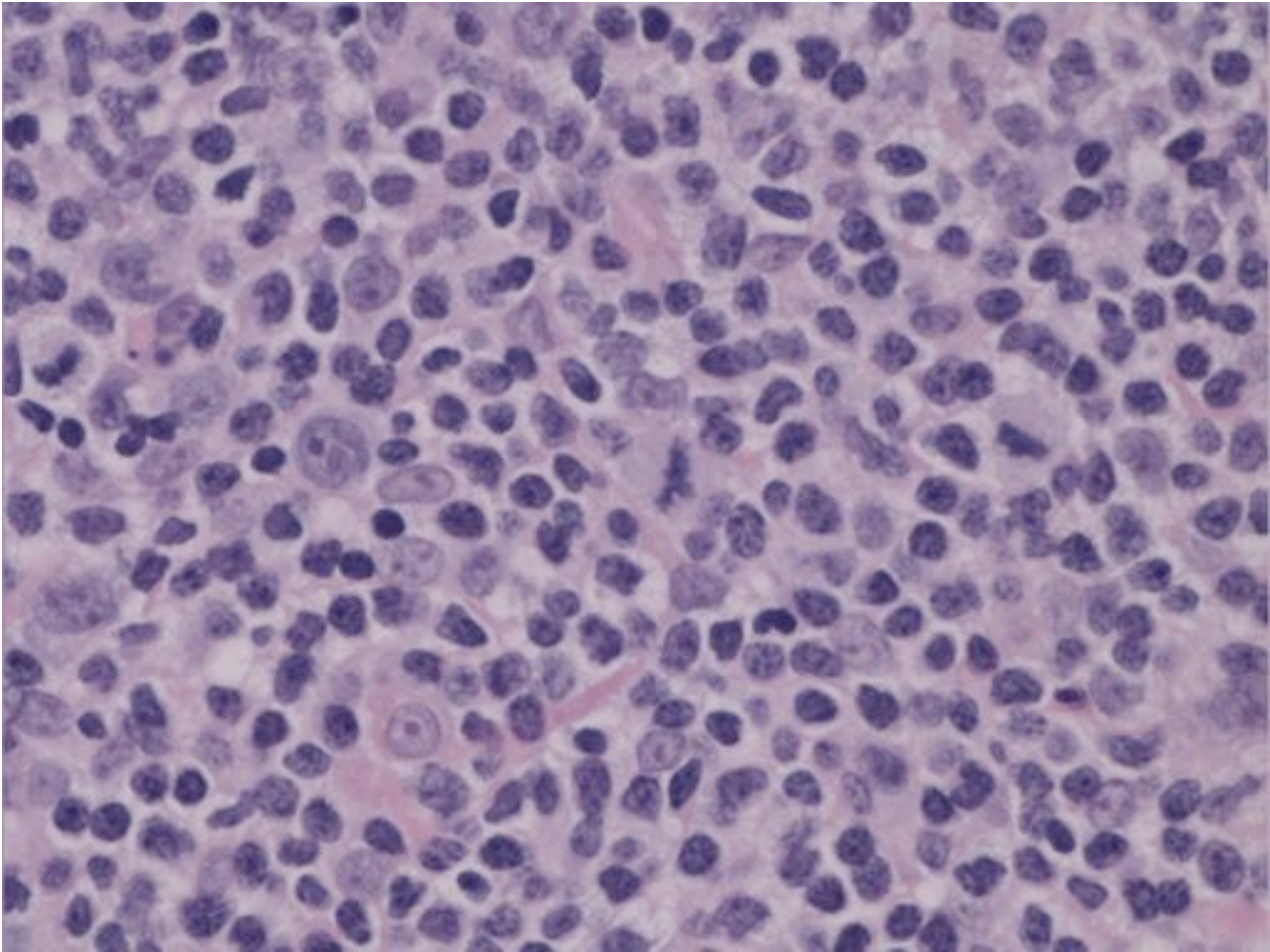


IgD

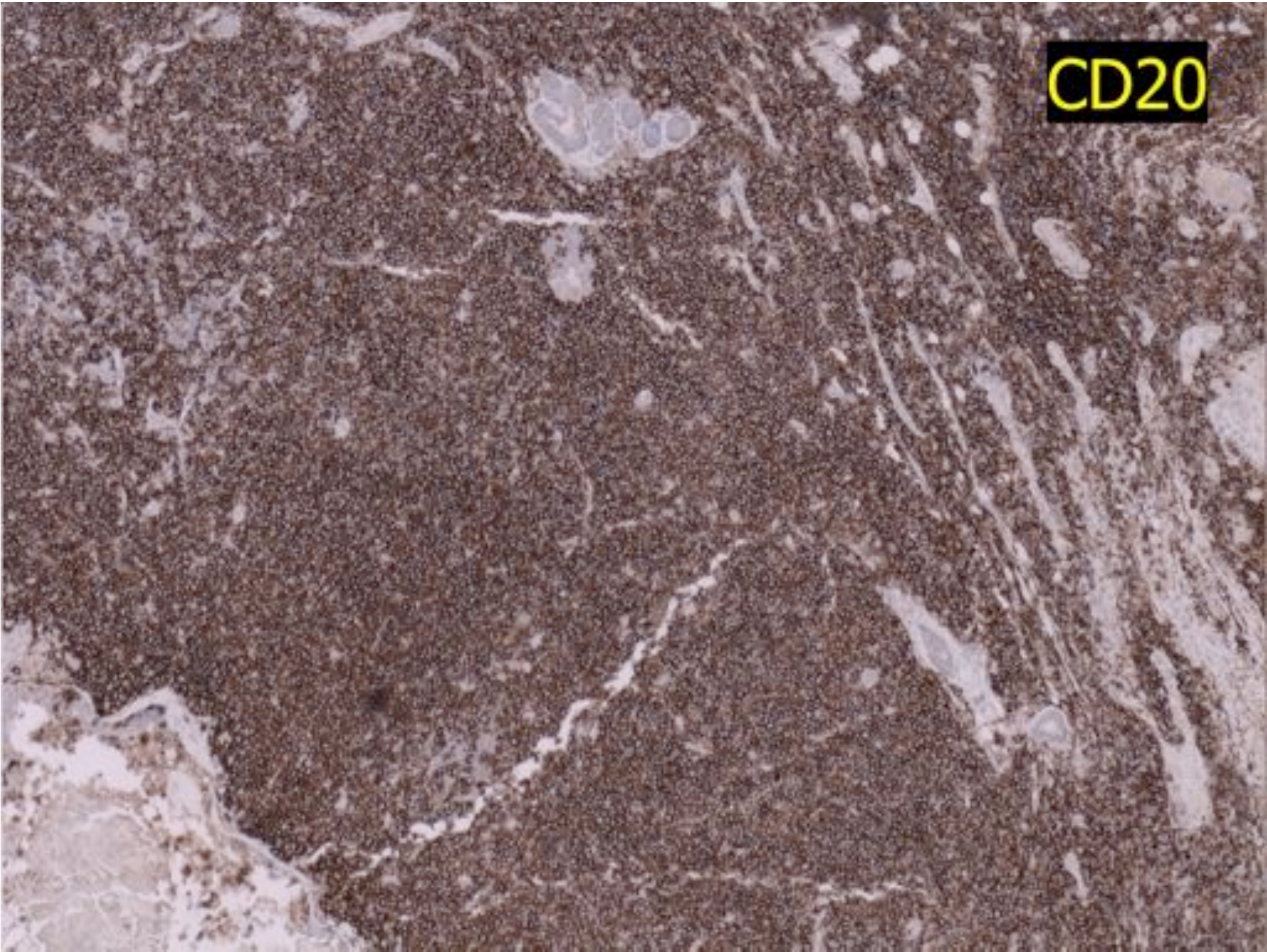




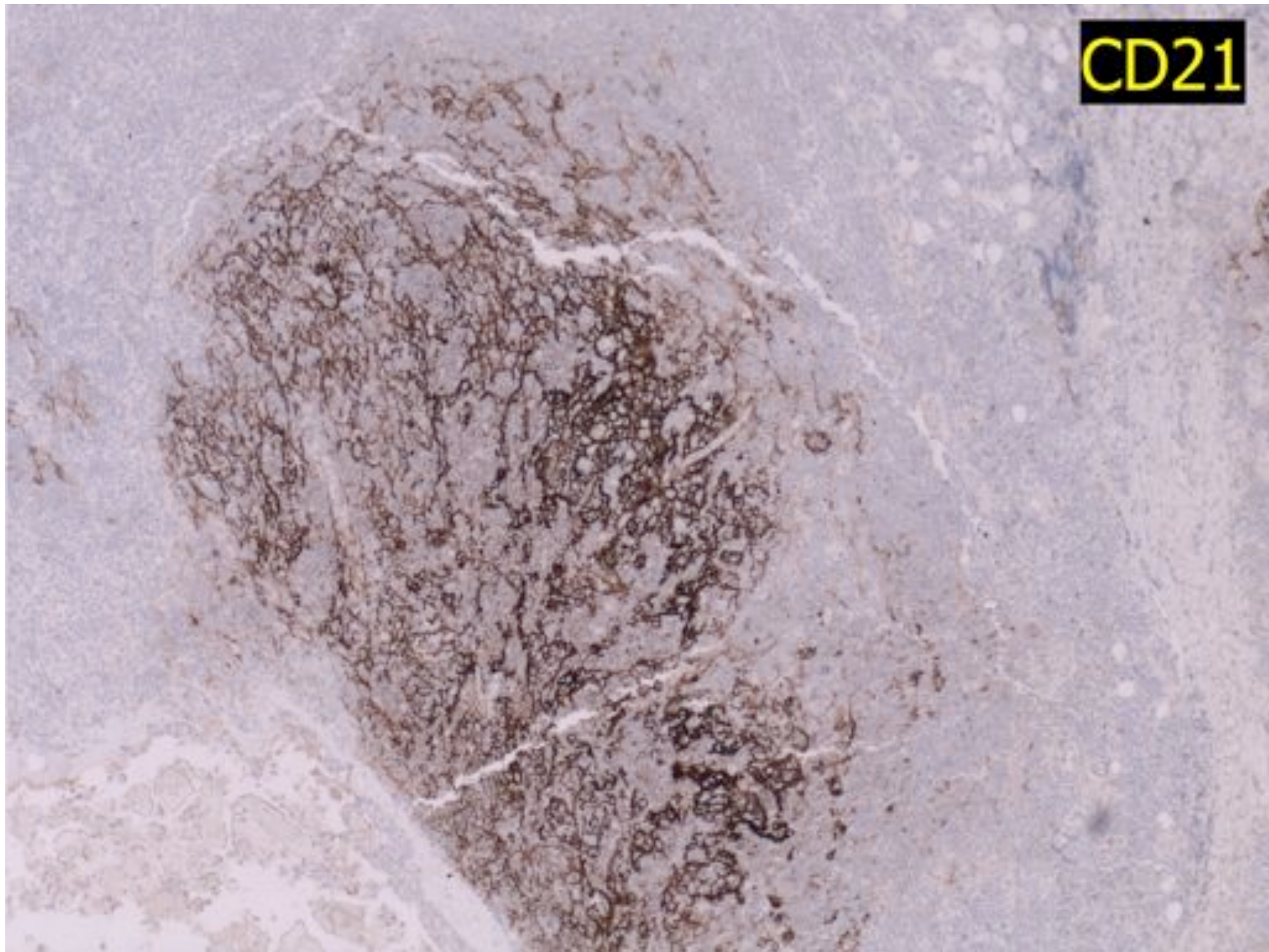




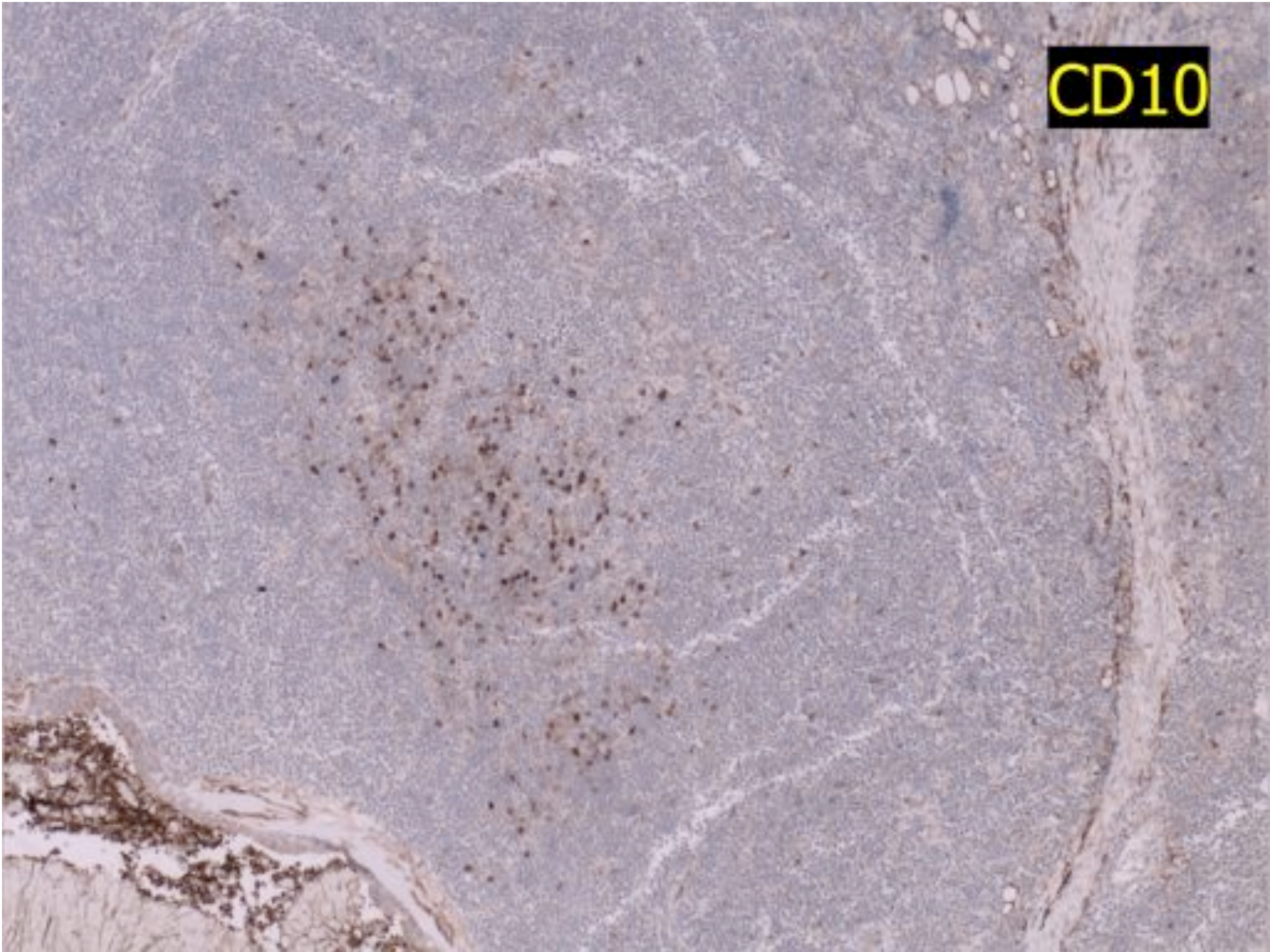
CD20

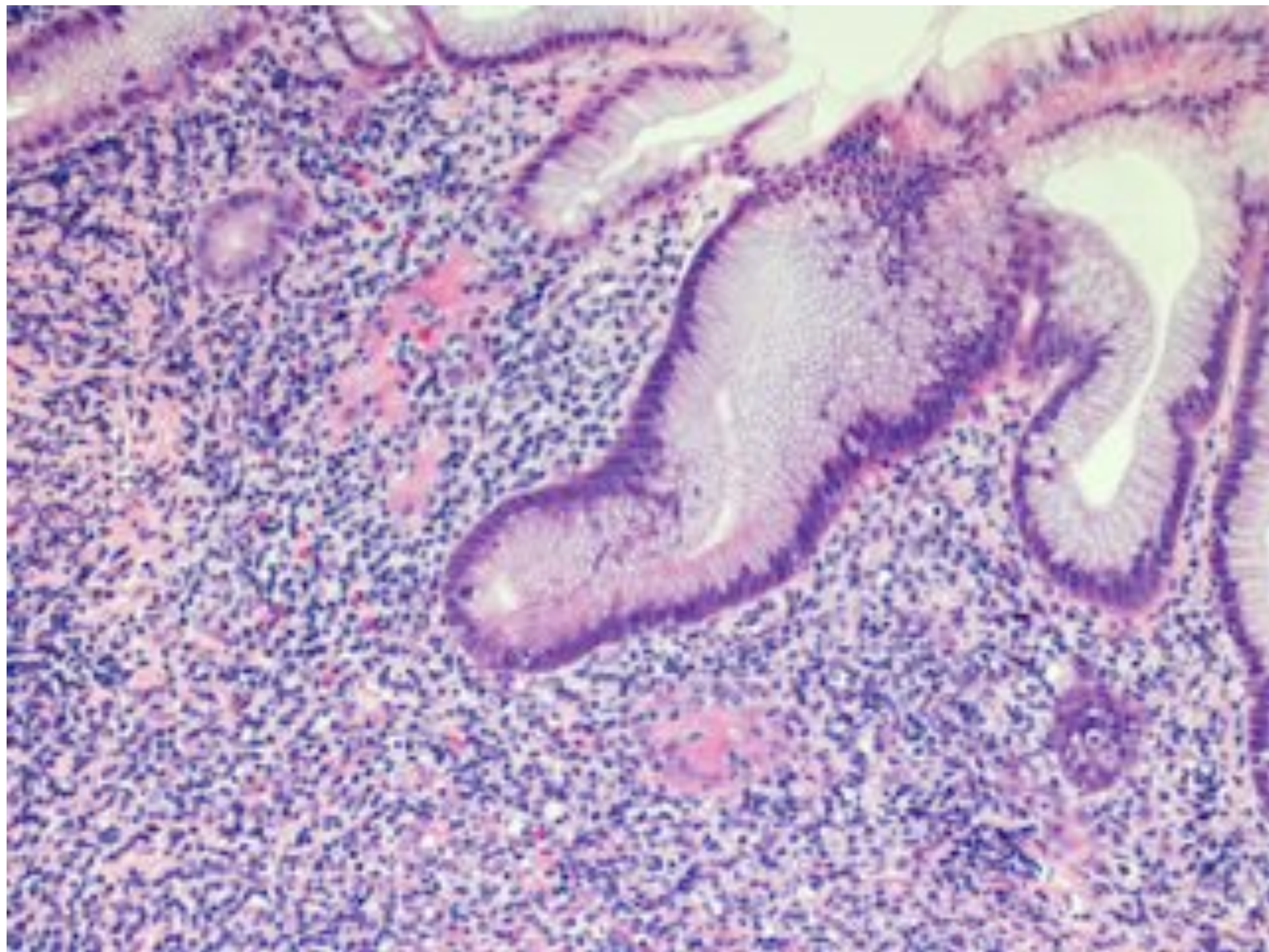


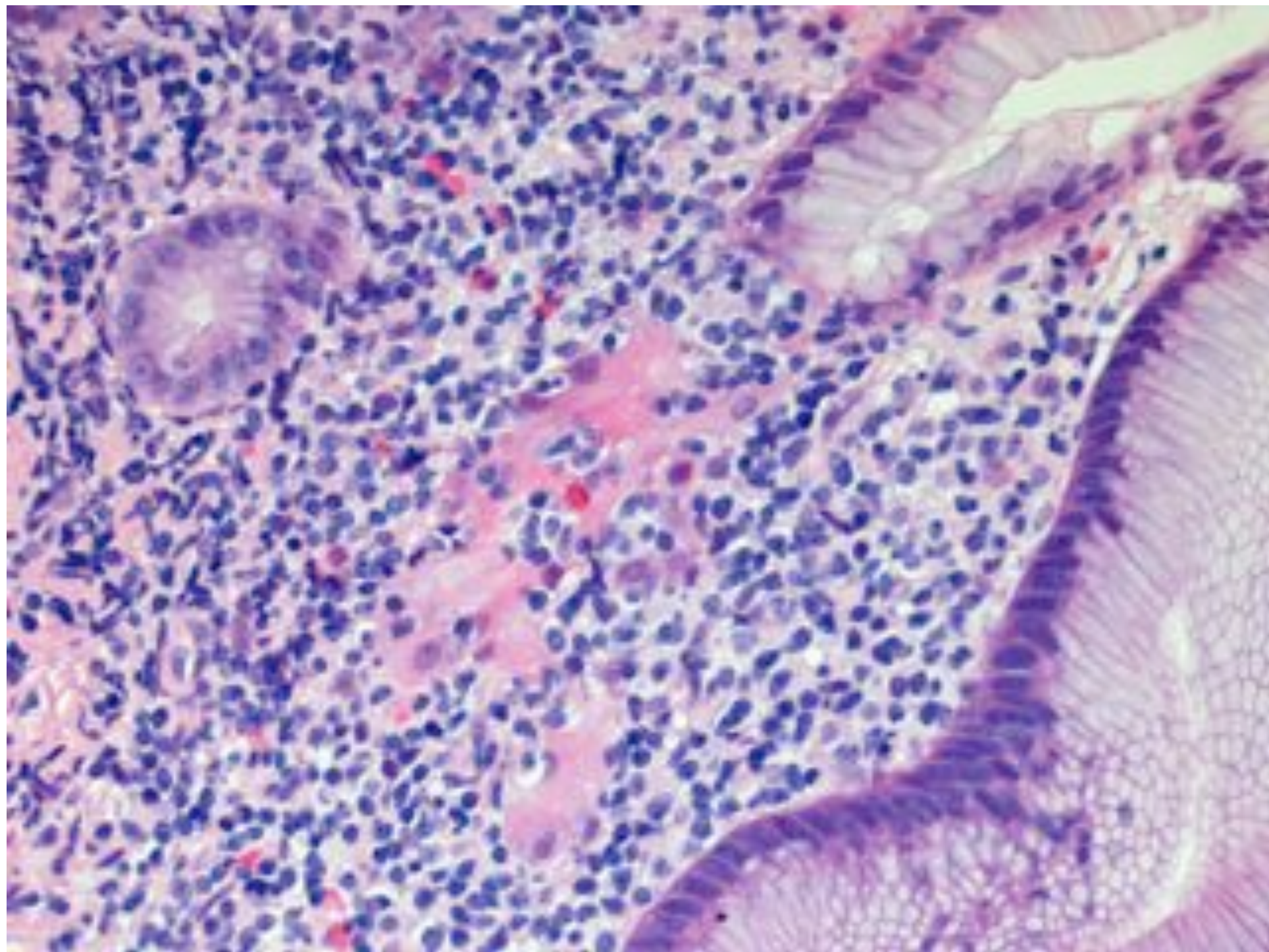
CD21

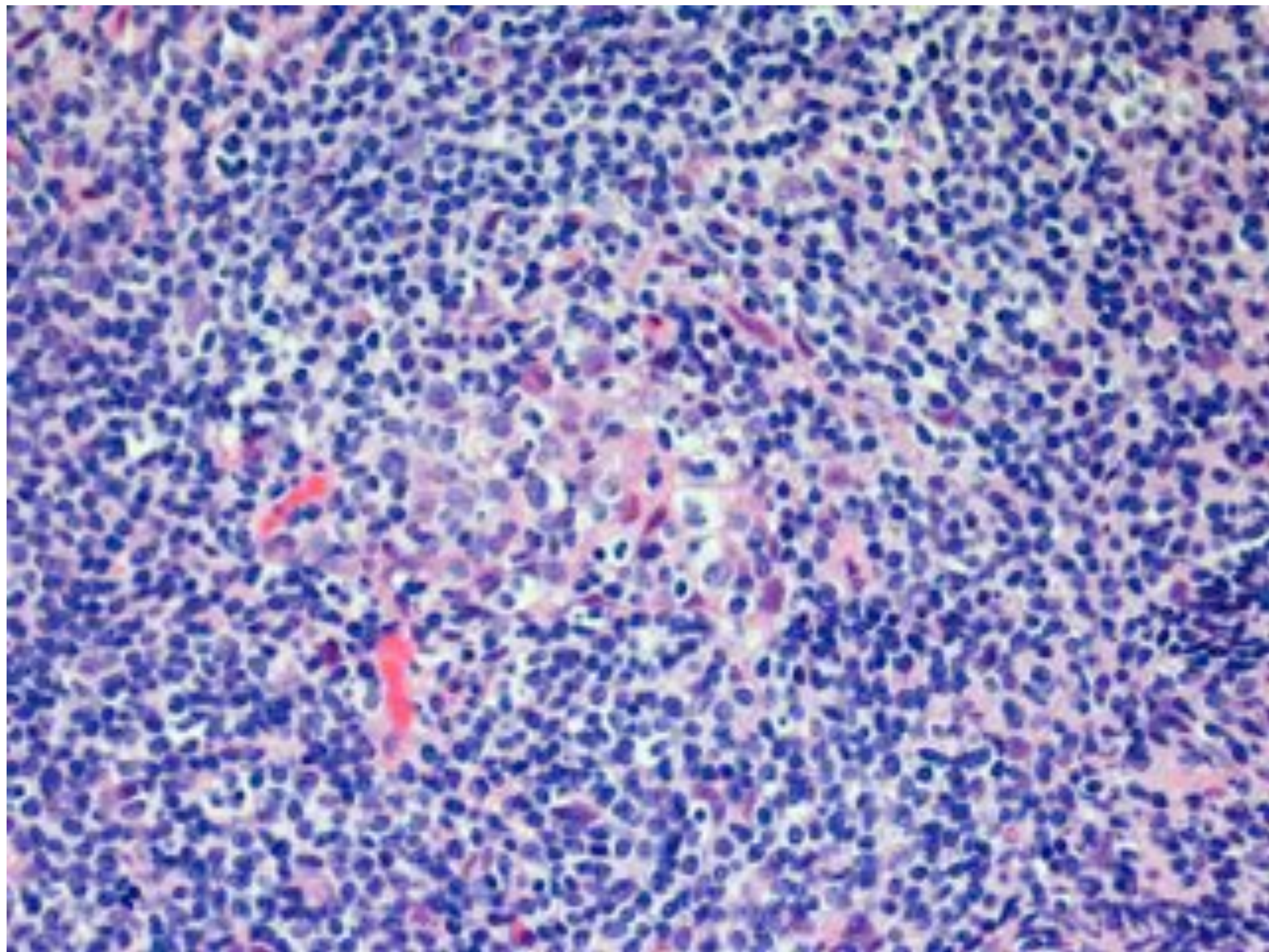


CD10

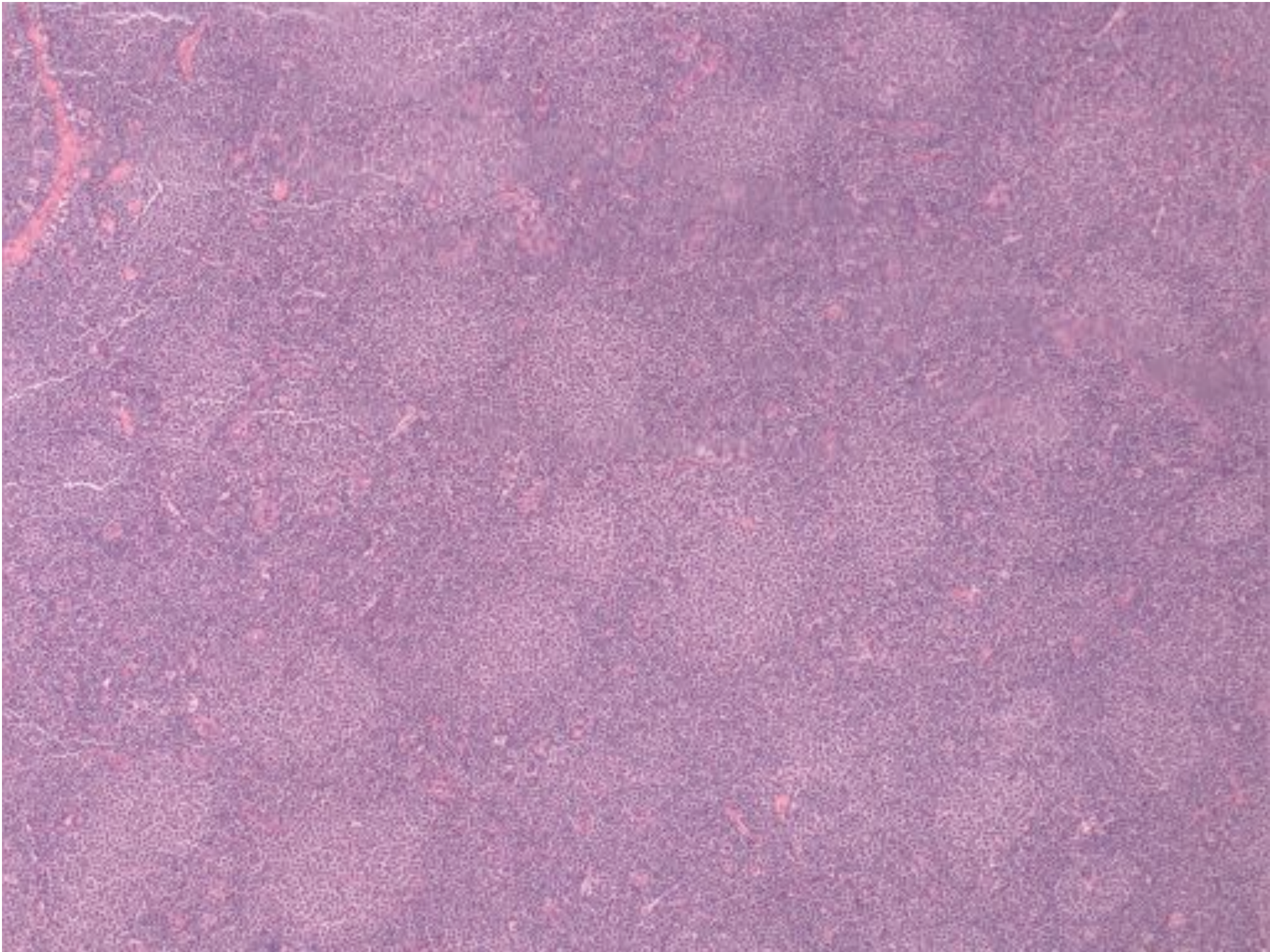


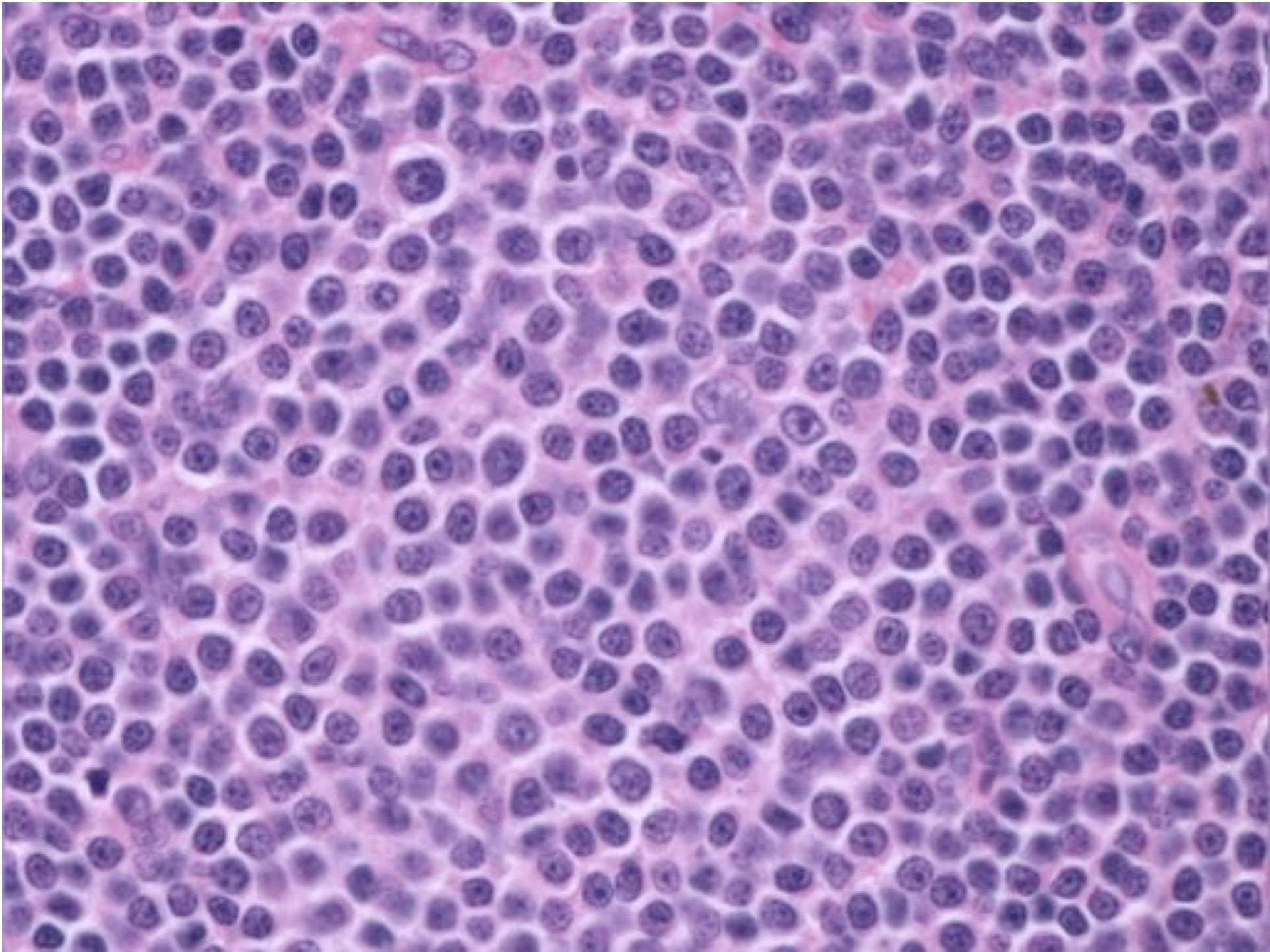


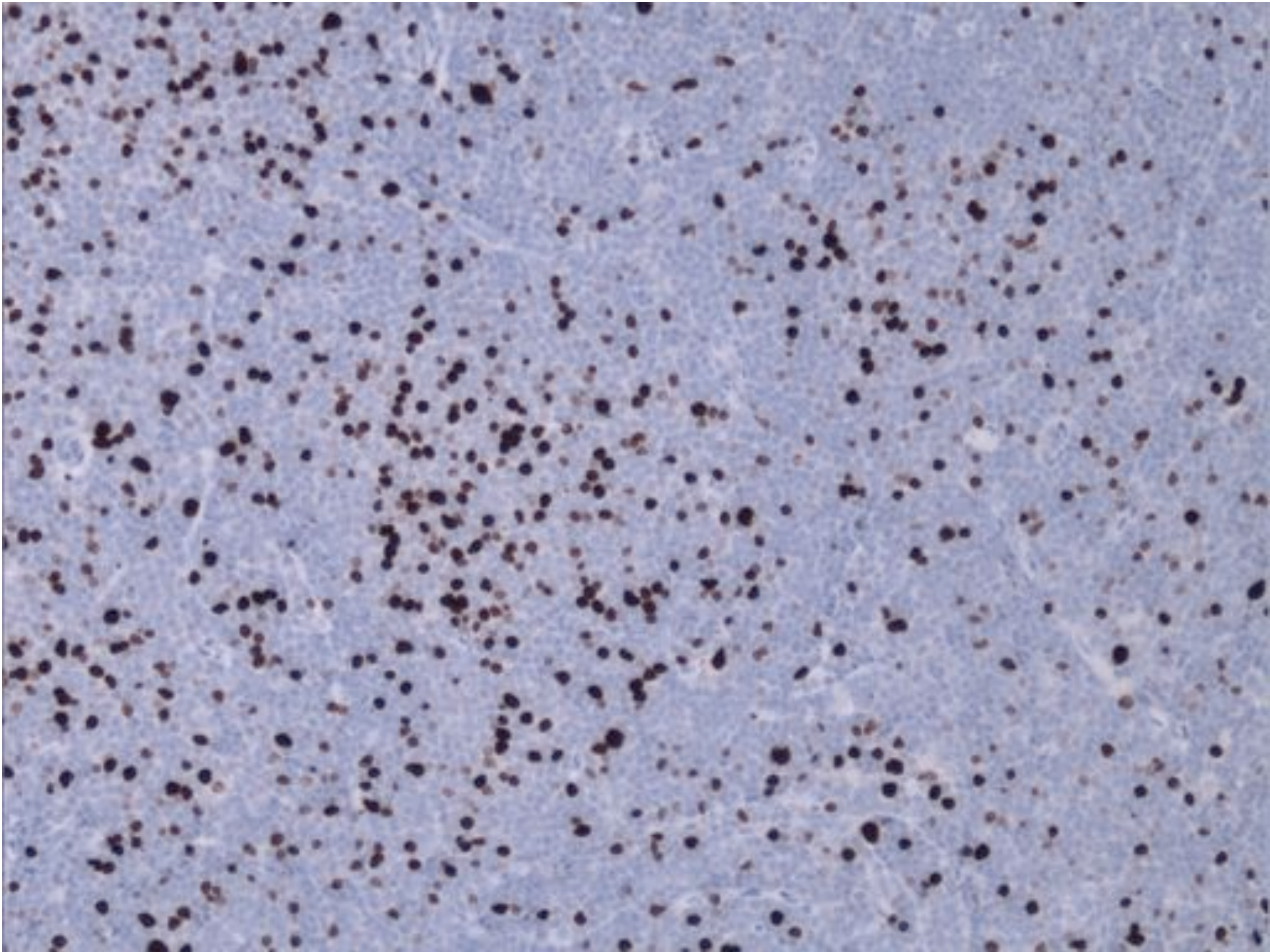




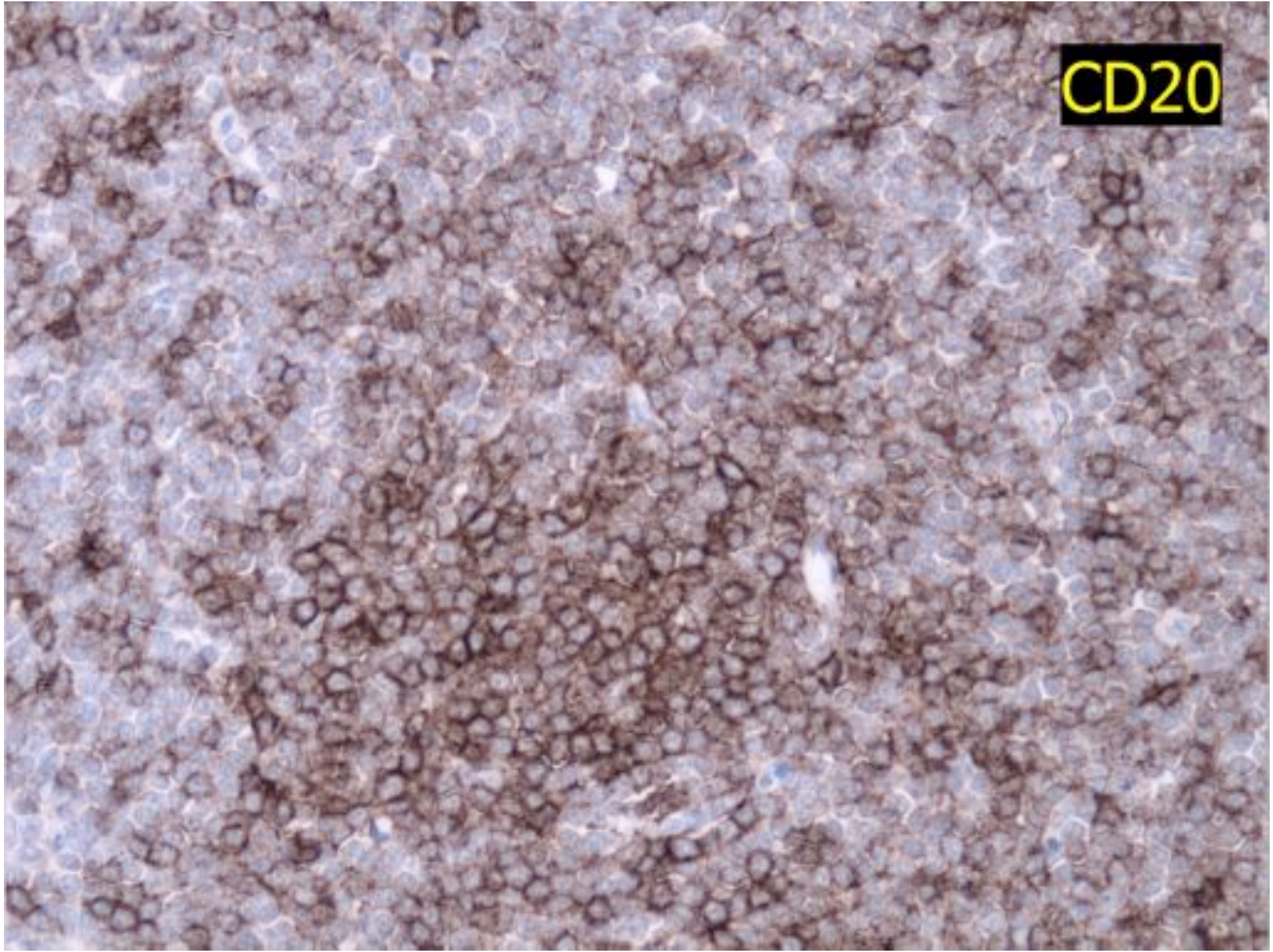
CLL/Lymphocytic Lymphoma



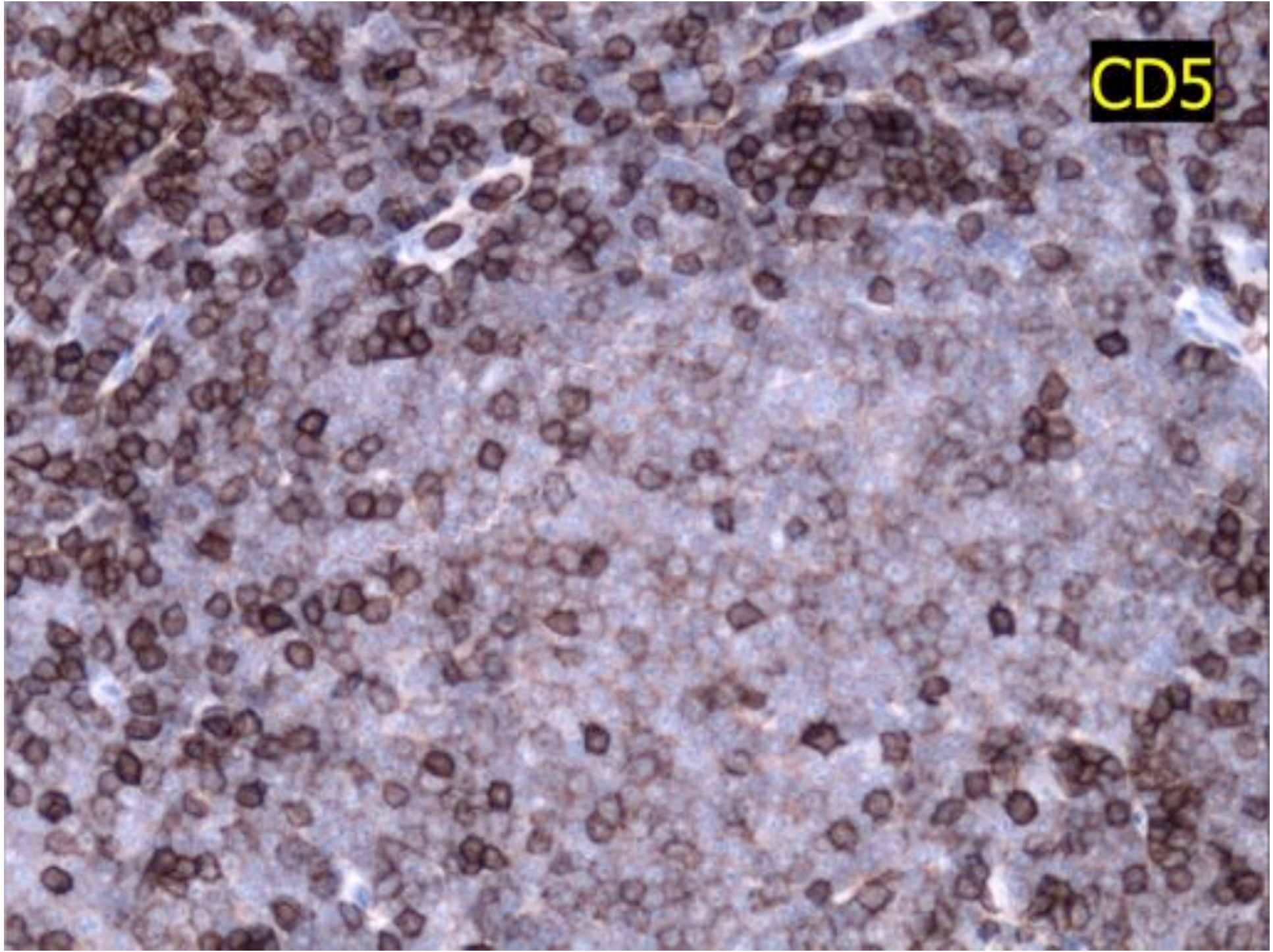




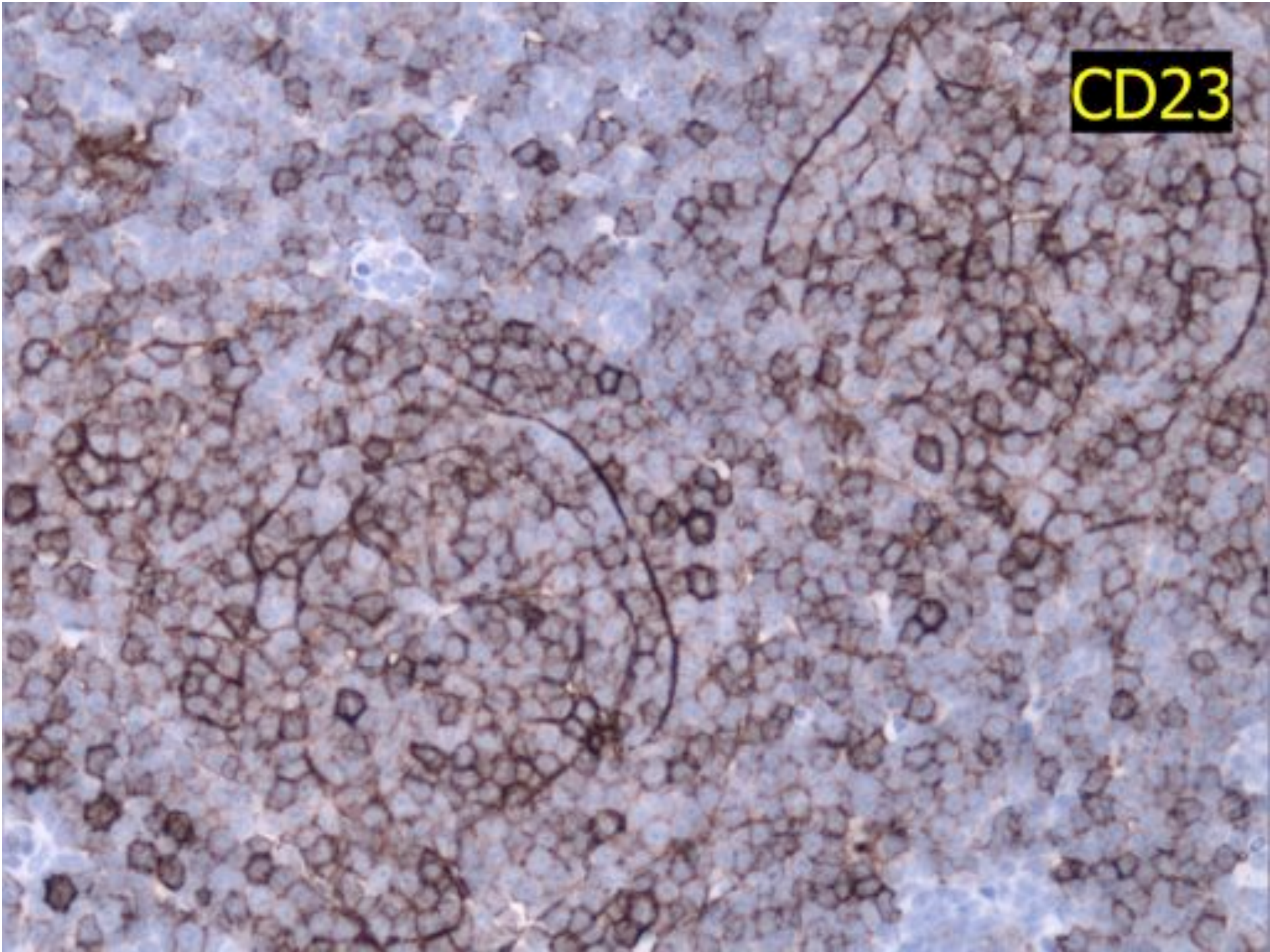
CD20



CD5



CD23



CYTOLOGY

ARCHITECTURE

IMMUNOPHENOTYPE

CLL

CD5 + CD23+

FOLLICULAR

CD10+ BCL6+ BCL2+

MANTLE CELL

CD5+ Cyclin D1+

MARGINAL ZONE