



# Venting the Spleen: spleen pathology in an era of morcellation

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BLPG/BDIAP Meeting May 2014

# Whole Spleens don't Fix

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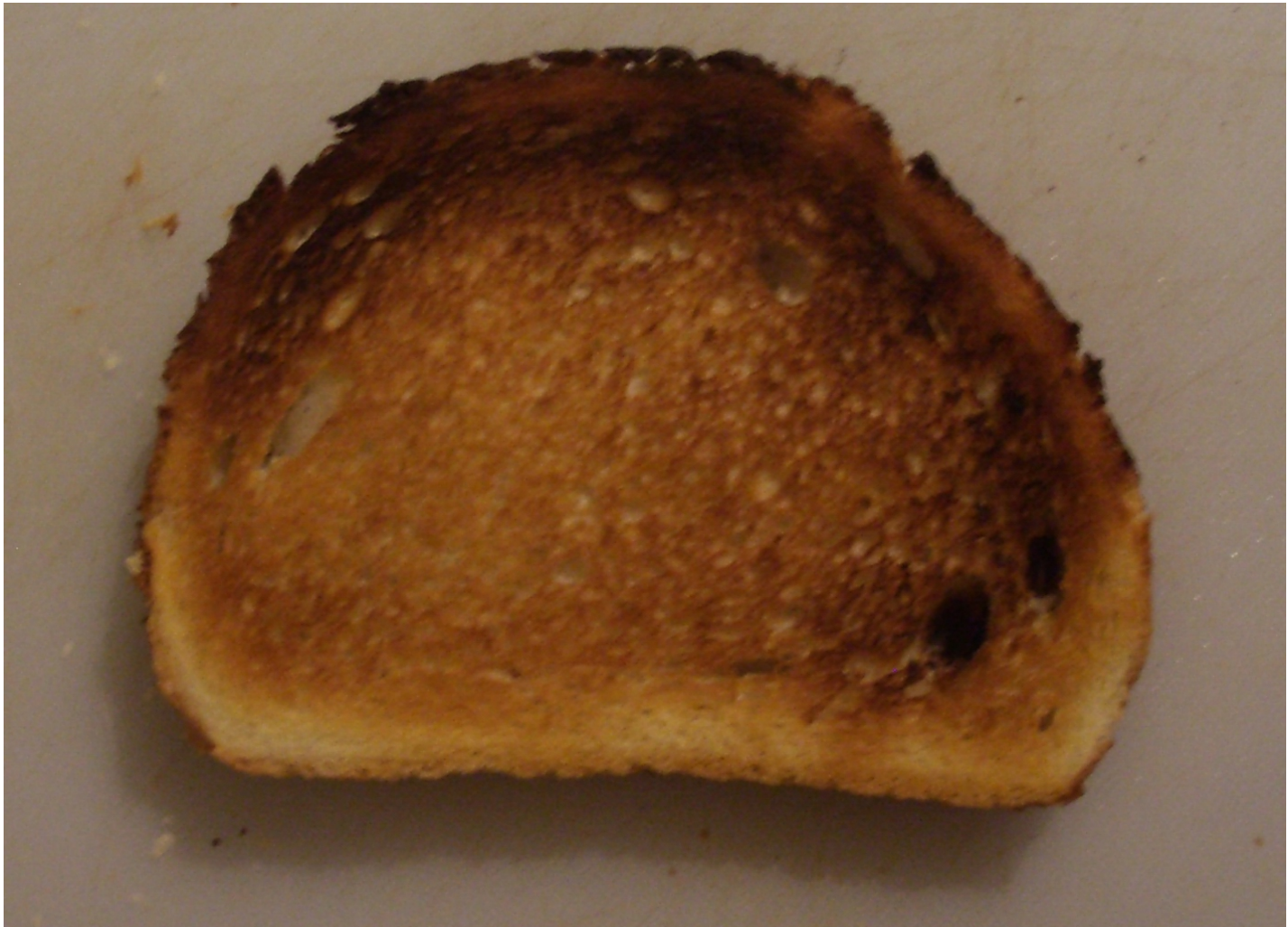
# Slicing Technique for Whole Spleen

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# What to do with 'Beetroot Soup'

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# Why is splenectomy done?

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- Damaged by trauma
- 'Spontaneous' rupture
- Focal lesion (+/- enlargement; often incidental finding during CT or U/S imaging for other pathology
- Enlargement – for diagnosis
- Enlargement – for treatment
- Hypersplenism (+/- enlargement; e.g., ITP, AIHA, hereditary spherocytosis



# Why do spleens enlarge?

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## ○ Diffuse:

- Congestion
- Sequestration
- Infection
- Non-Hodgkin lymphoma
- Extramedullary haemopoiesis
  - Incidental
  - Significant
- Peliosis



# Why do spleens enlarge?

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## ○ Focal/mass lesions:

- Cyst
- Abscess
- Vascular lesions
- Non-Hodgkin lymphoma (high grade)
- Hodgkin lymphoma
- Metastatic solid tumour



# Why do spleens enlarge?

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## ○ Hypersplenism

- May supervene in any pathology causing the spleen to enlarge
- What is it?
- What does it look like?
  - Increased intrasinusoidal phagocytosis
  - Activation of sinusoidal endothelium
  - Increased sequestration in cords





# How are spleens removed?

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- Open abdominal surgery; intact unless removed following rupture.
- Laparoscopic surgery; variably morcellated.
- (Spleens may also be sampled by fine needle aspiration or needle core biopsy).

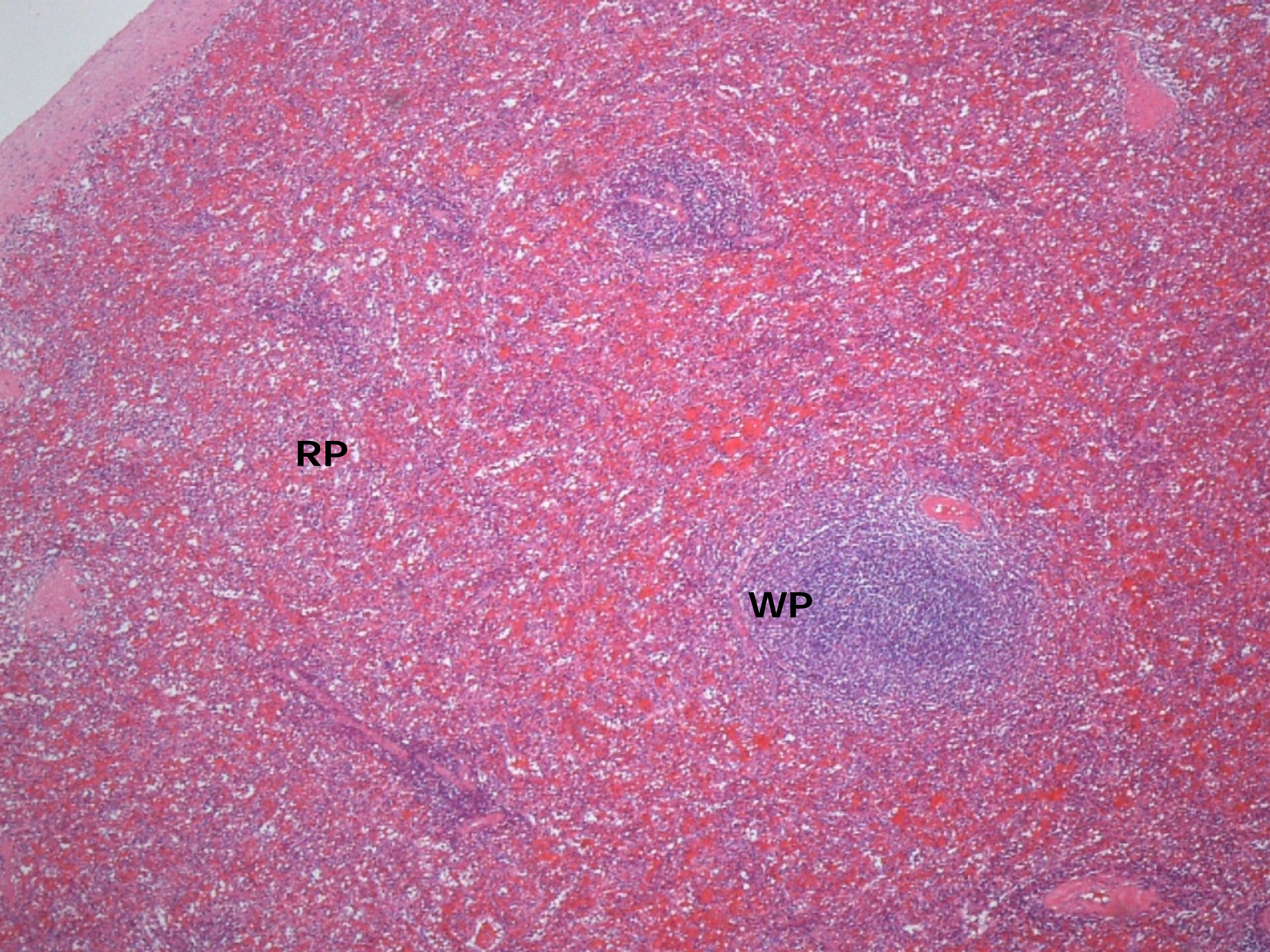


# The Normal Spleen

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- 10g at birth
- 100-150g normal adult weight
- 50-100g with age-related atrophy
- Internal architecture not visible naked eye
  - parenchyma appears uniform and red
  - larger blood vessels may be apparent
- Thin, transparent capsule
- Hilar lymph nodes invisible

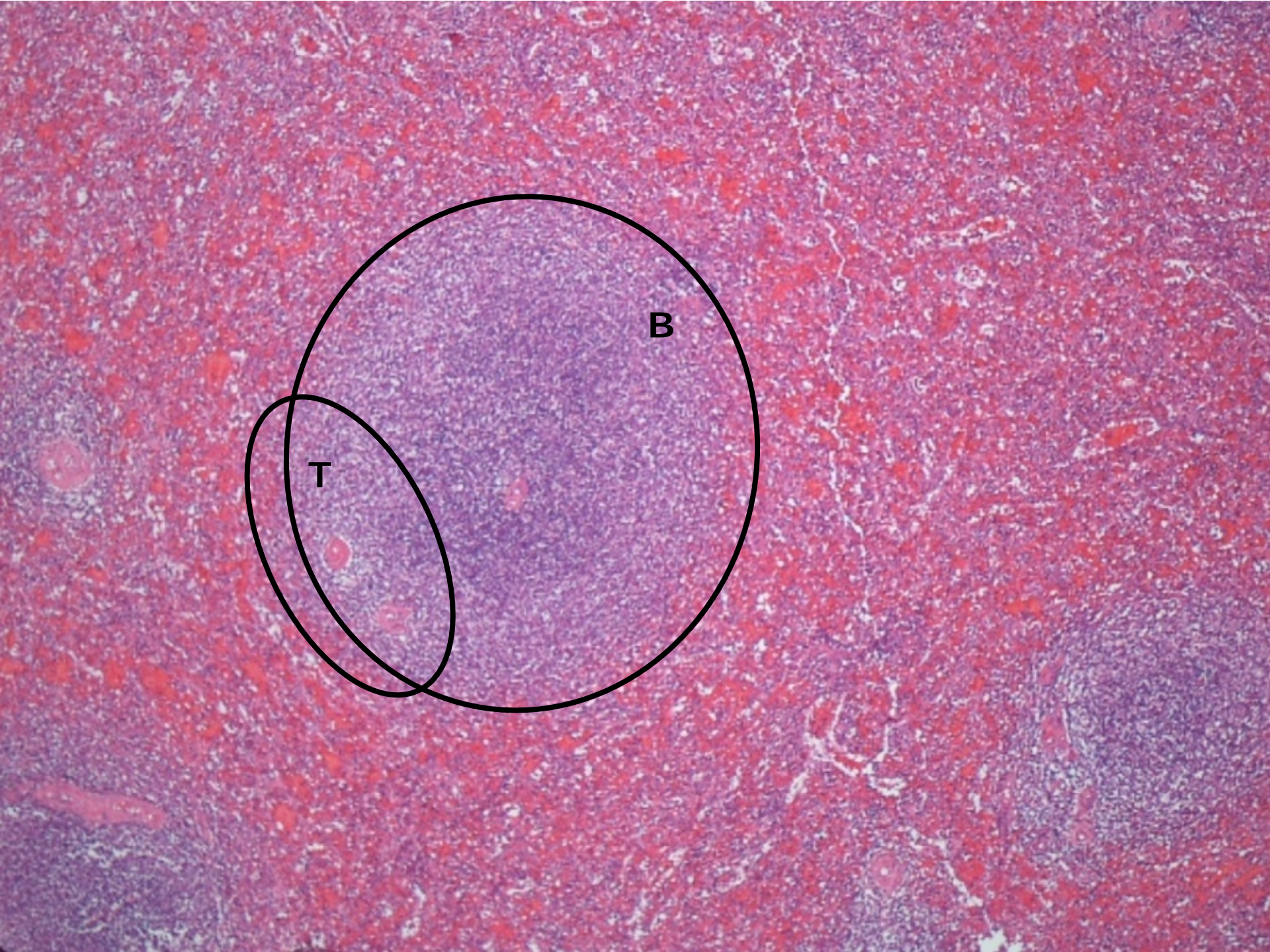




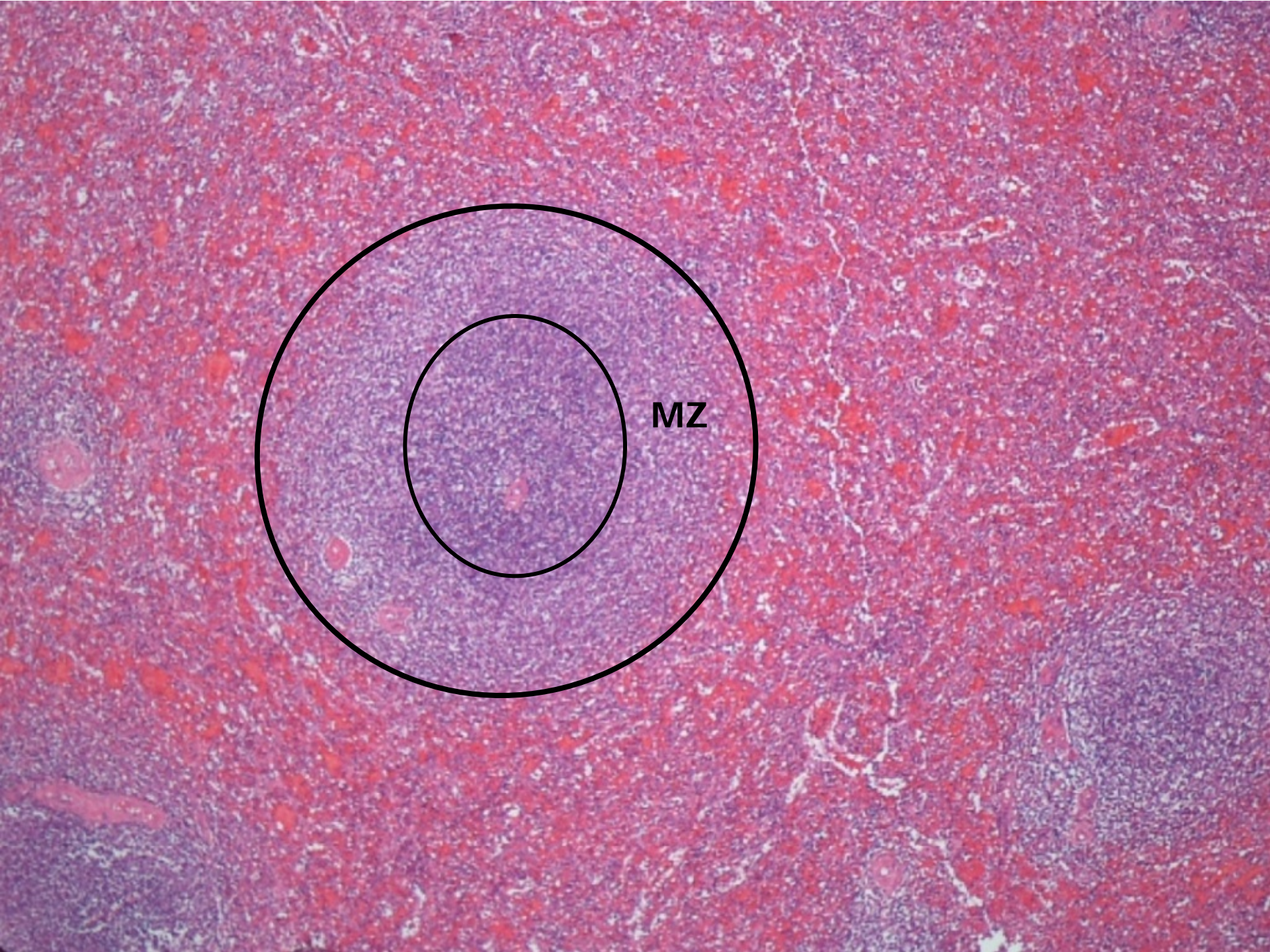
**RP**

**WP**



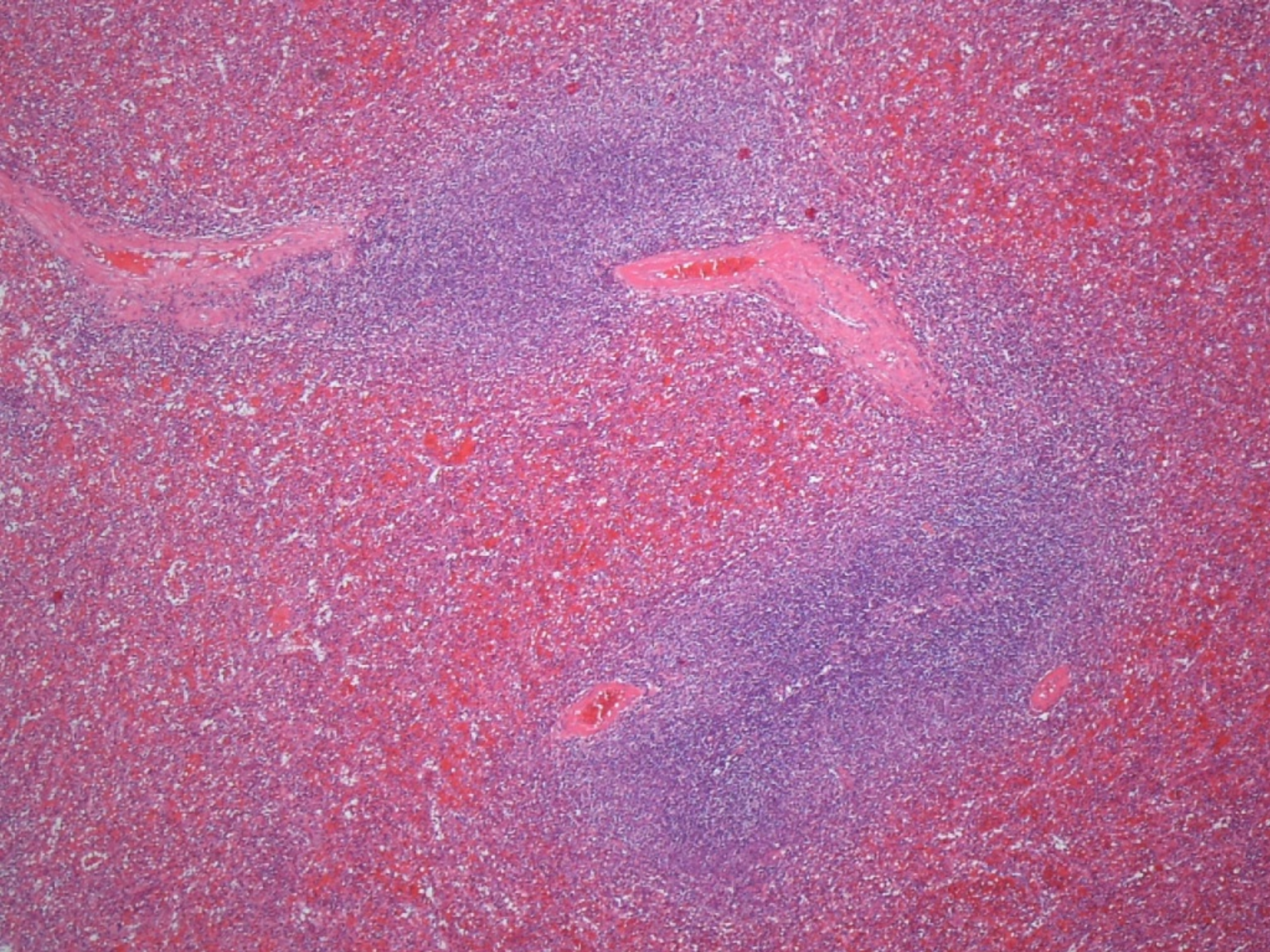




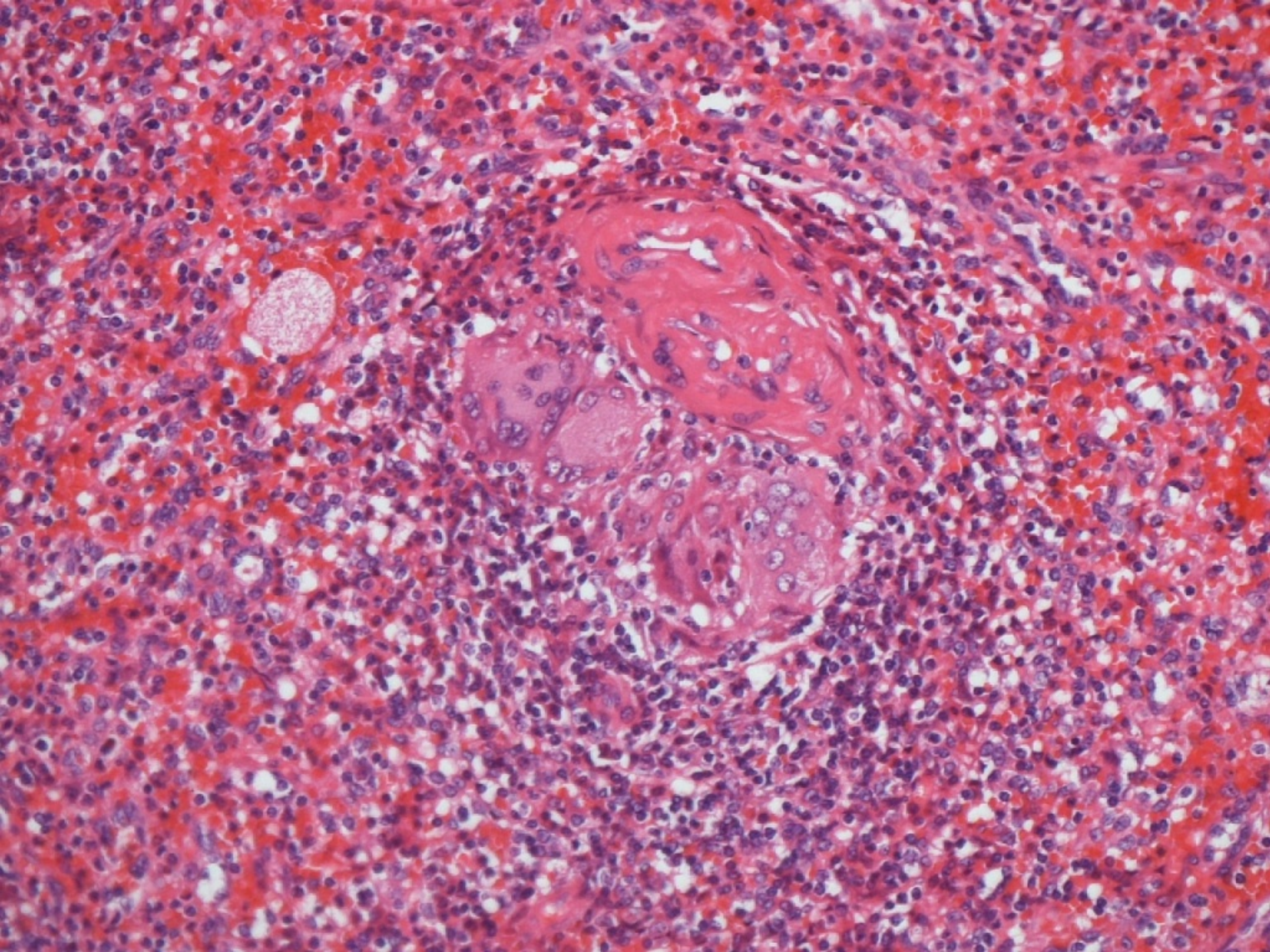


MZ

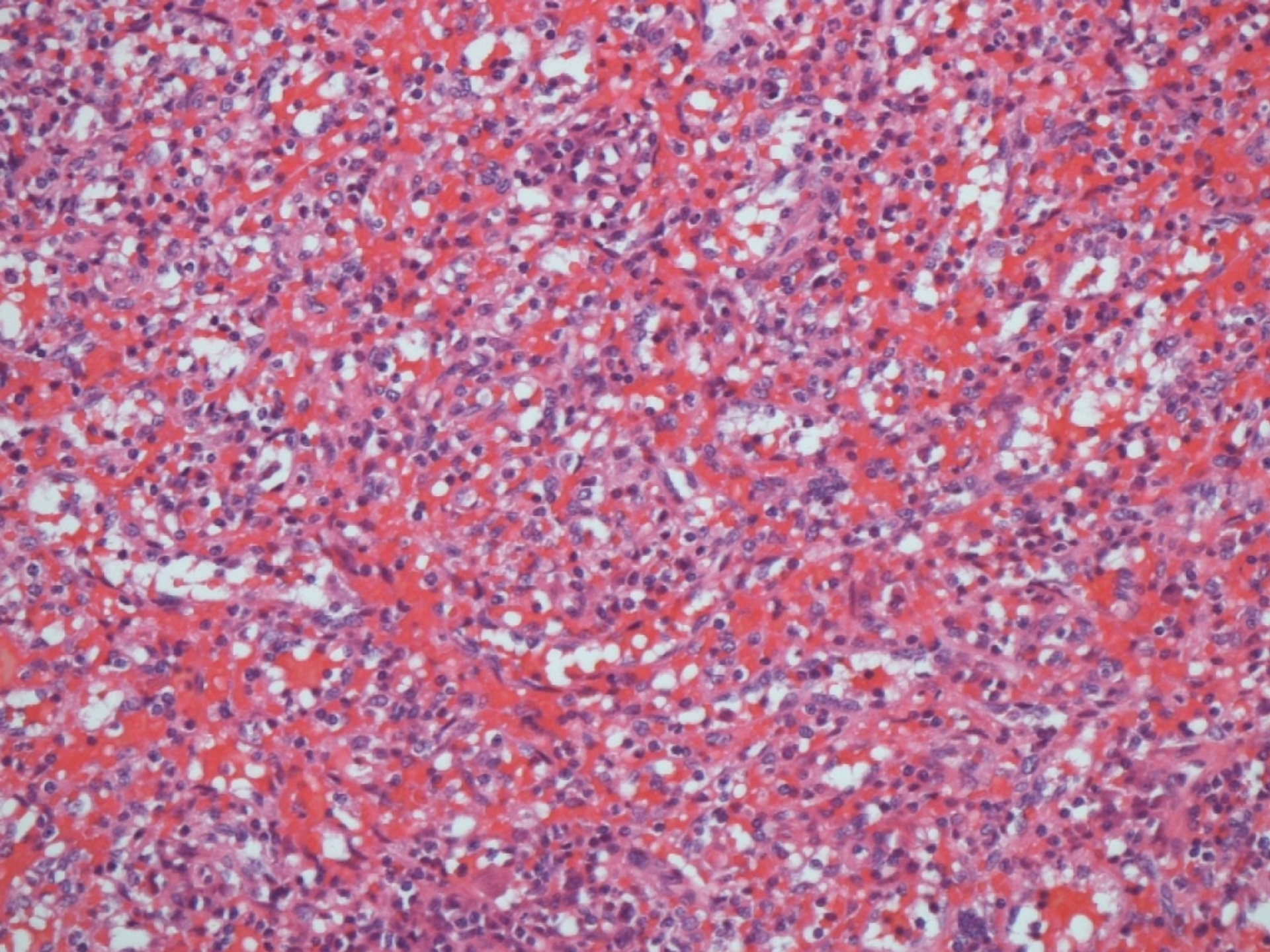




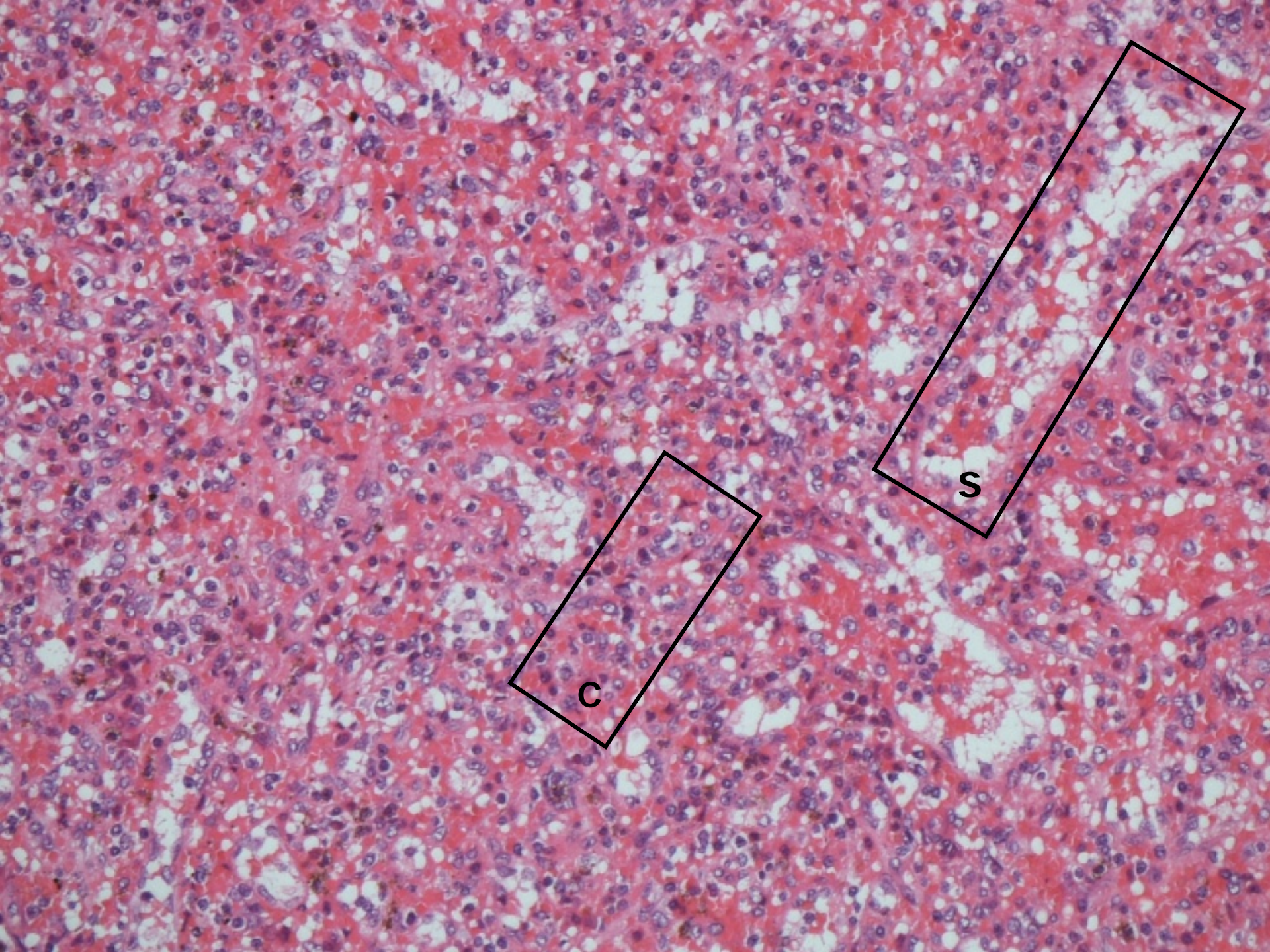












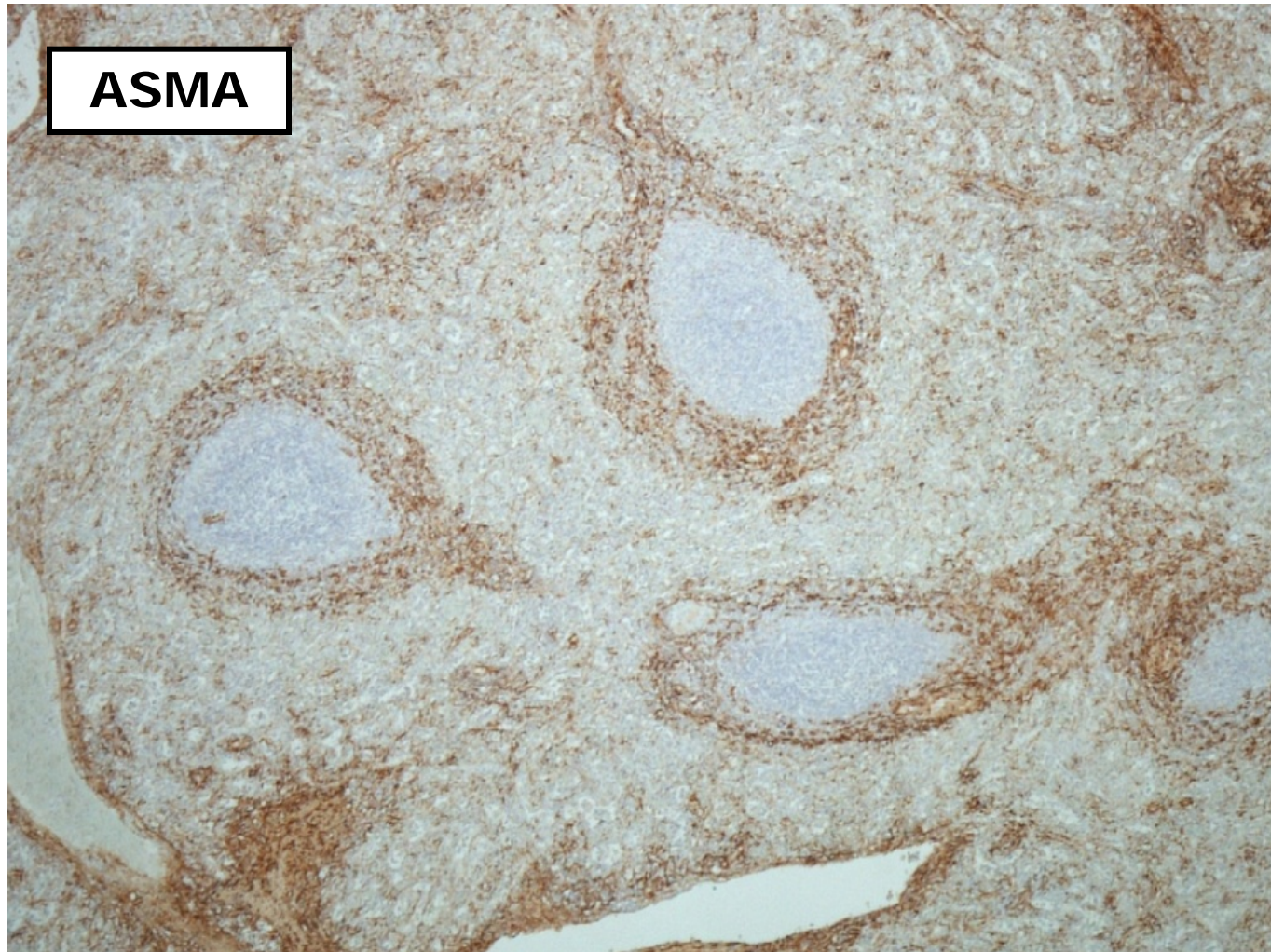
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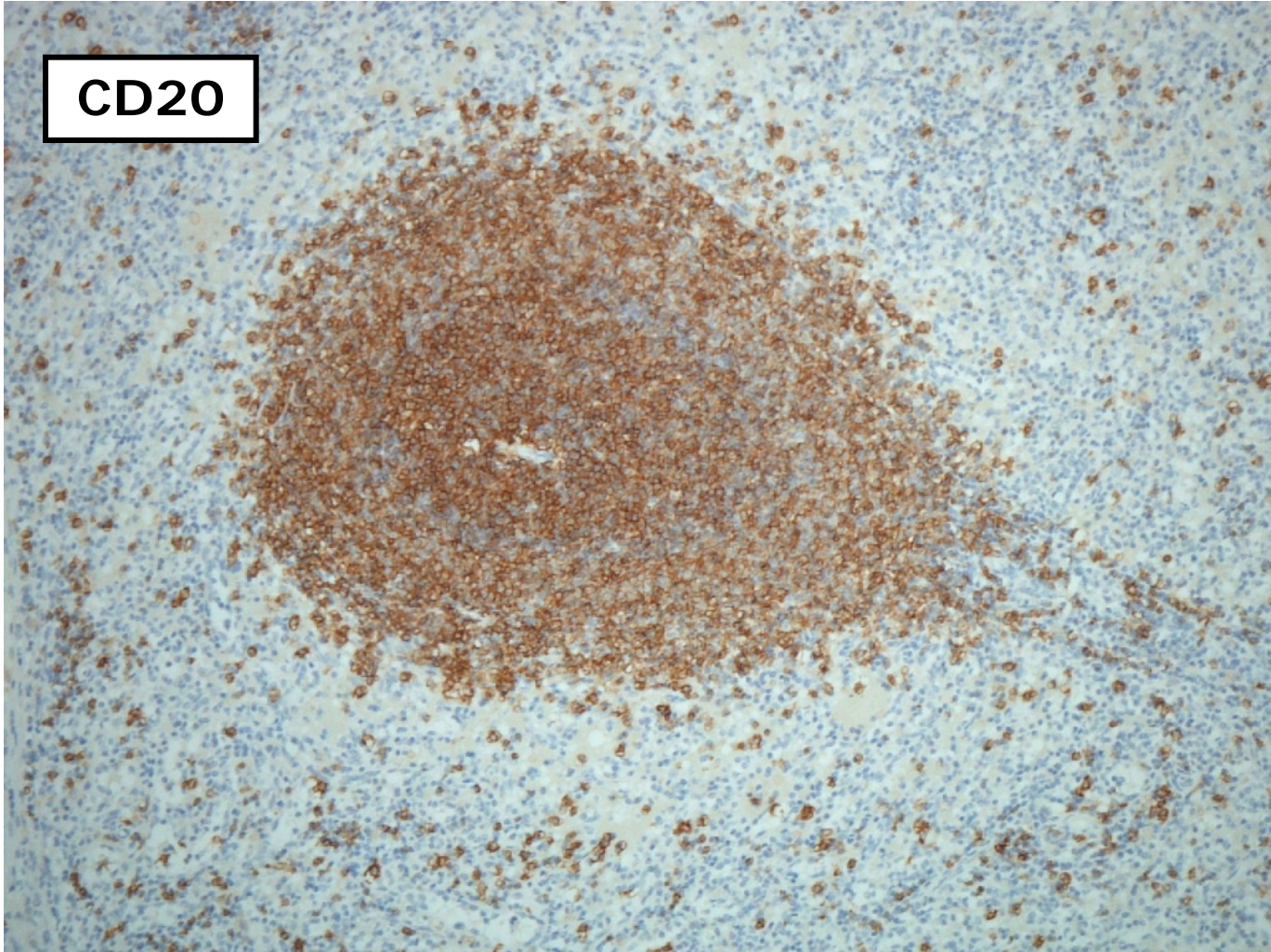
# What keeps RP and WP apart?

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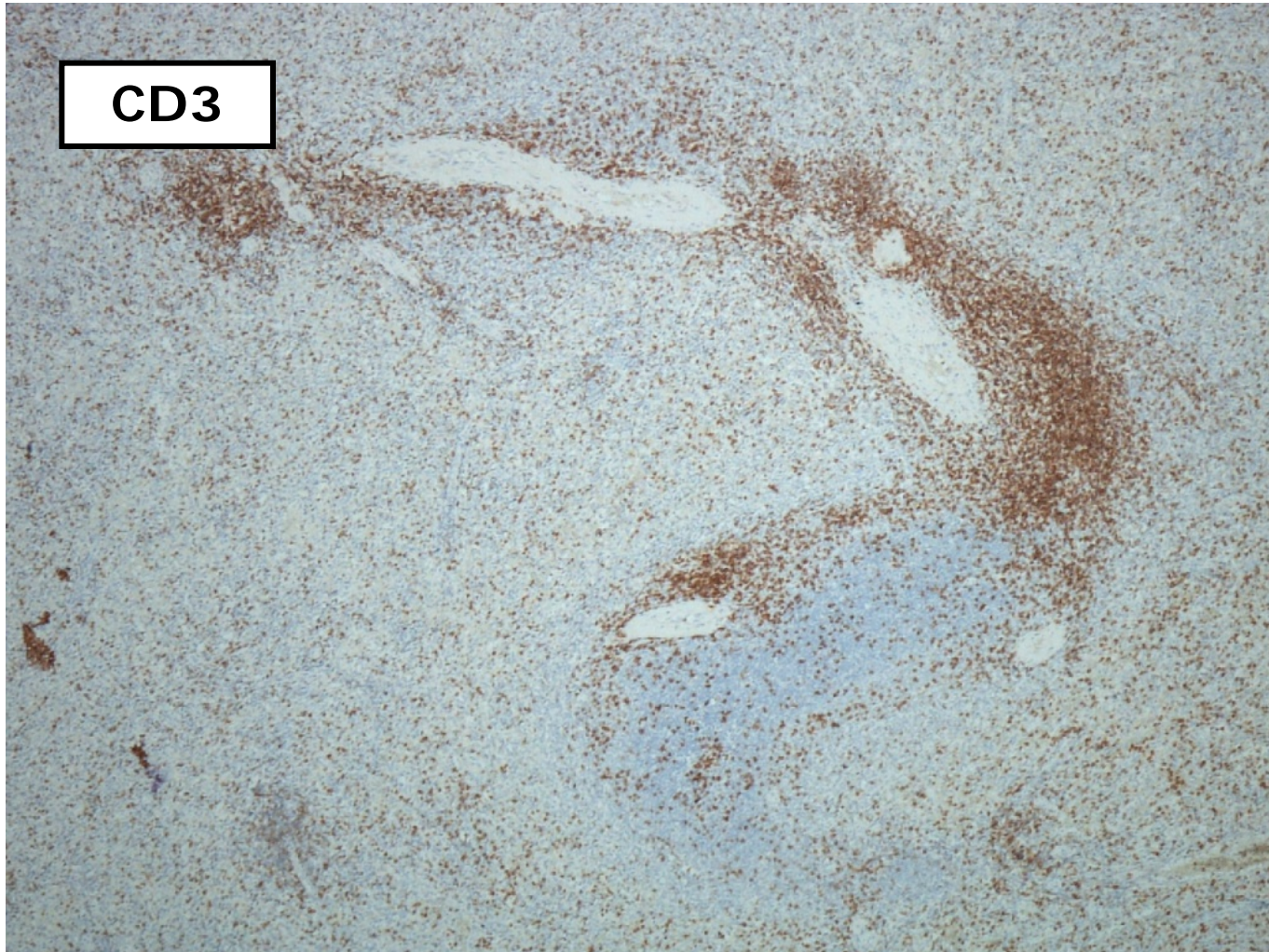


CD20



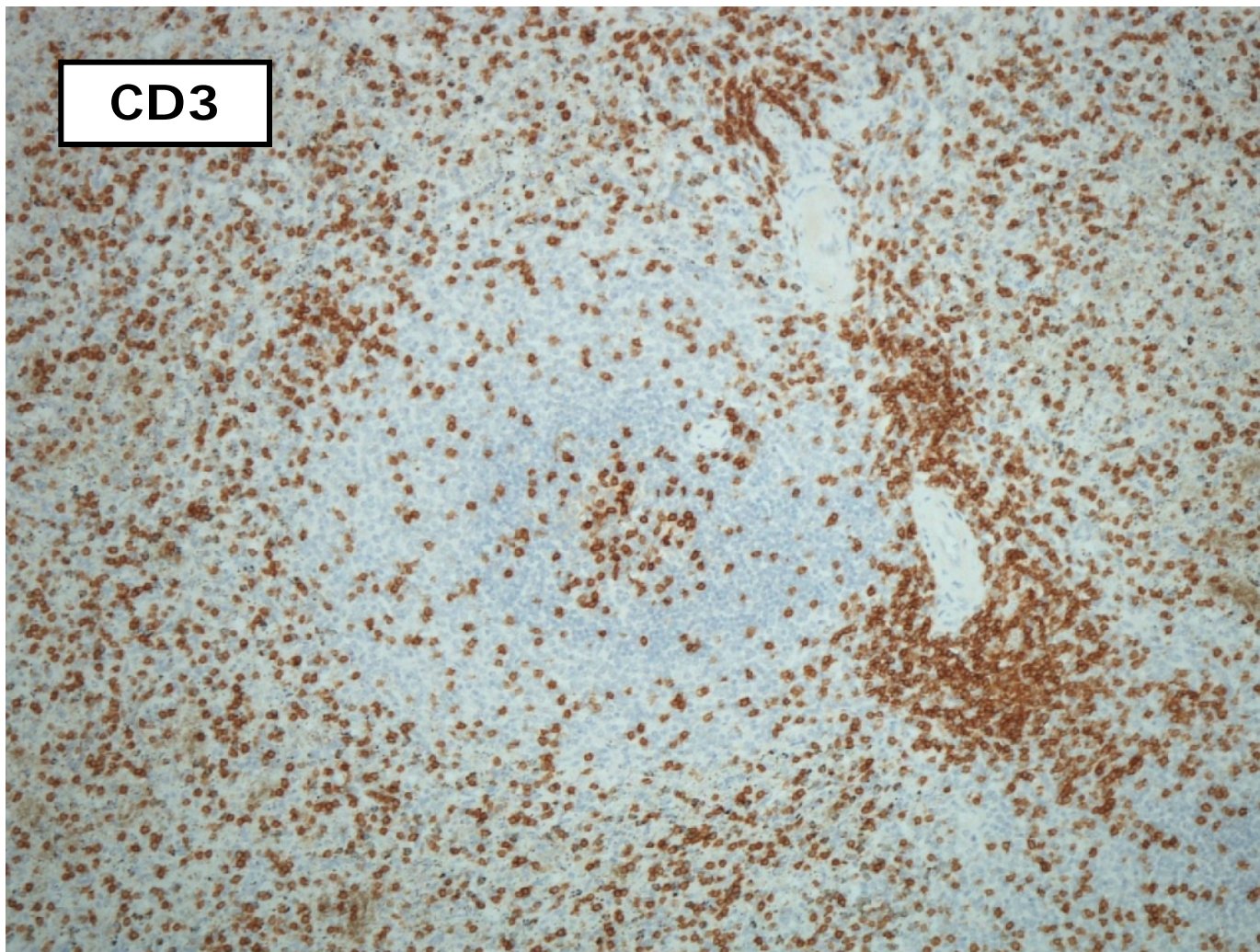


**CD3**



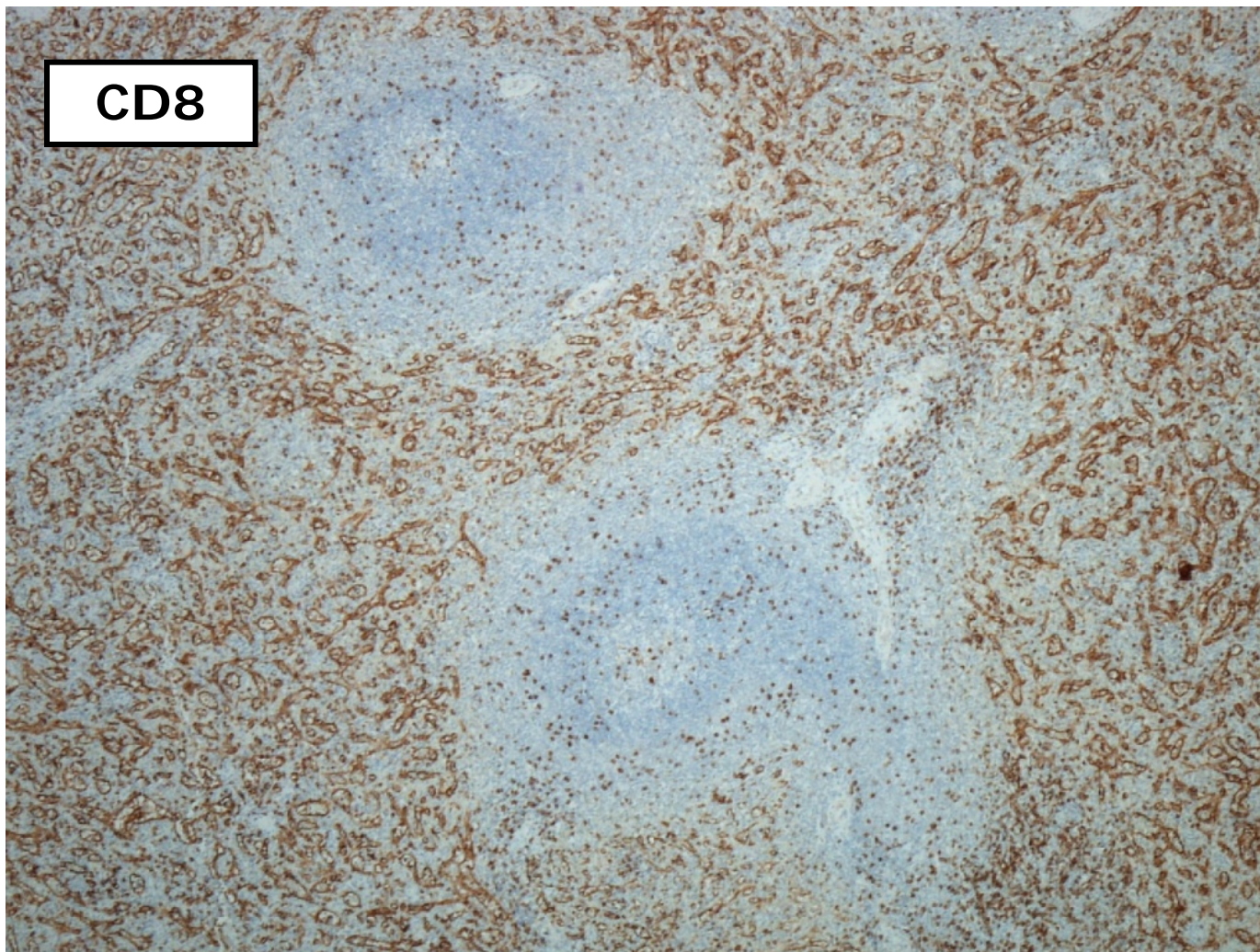


CD3



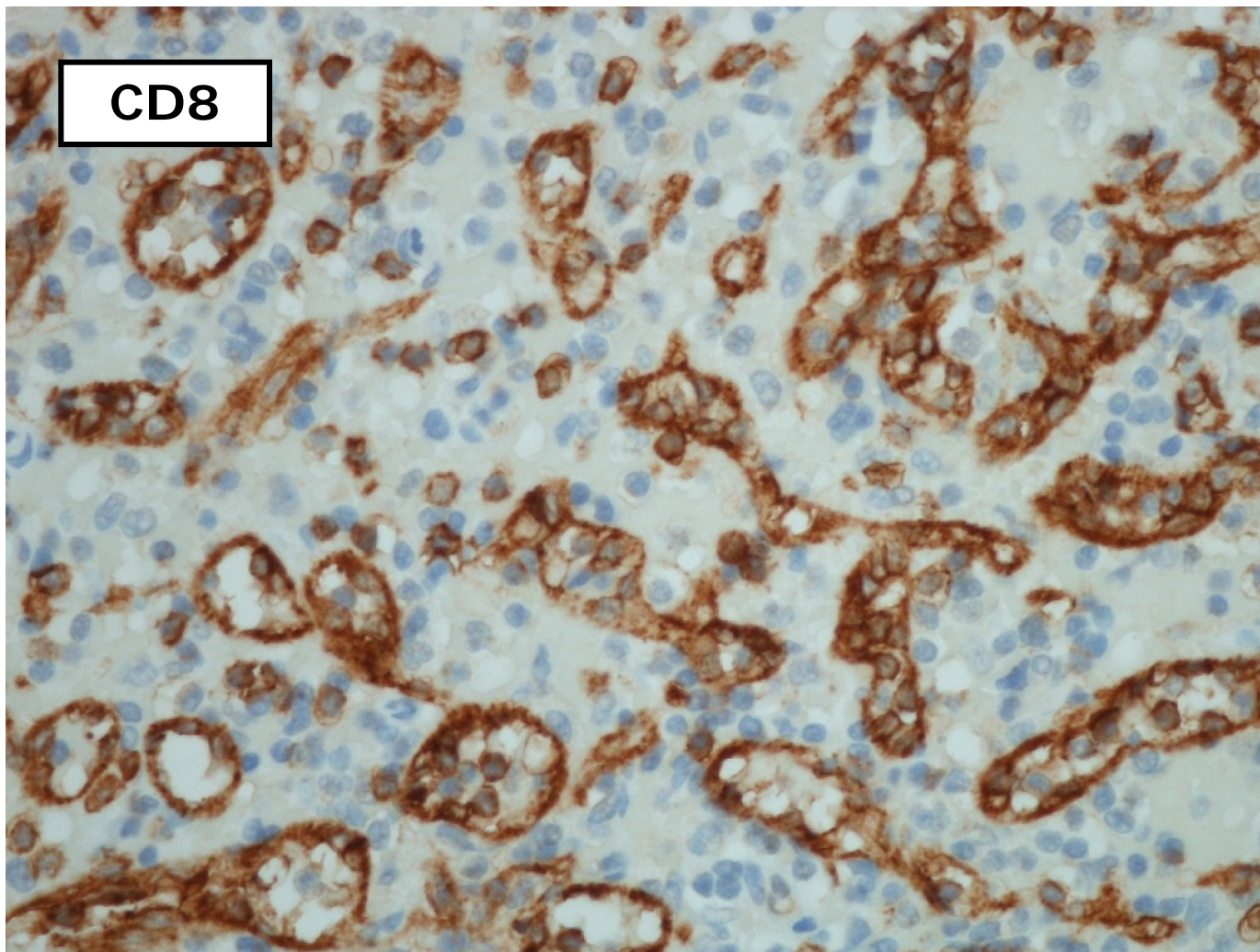


**CD8**



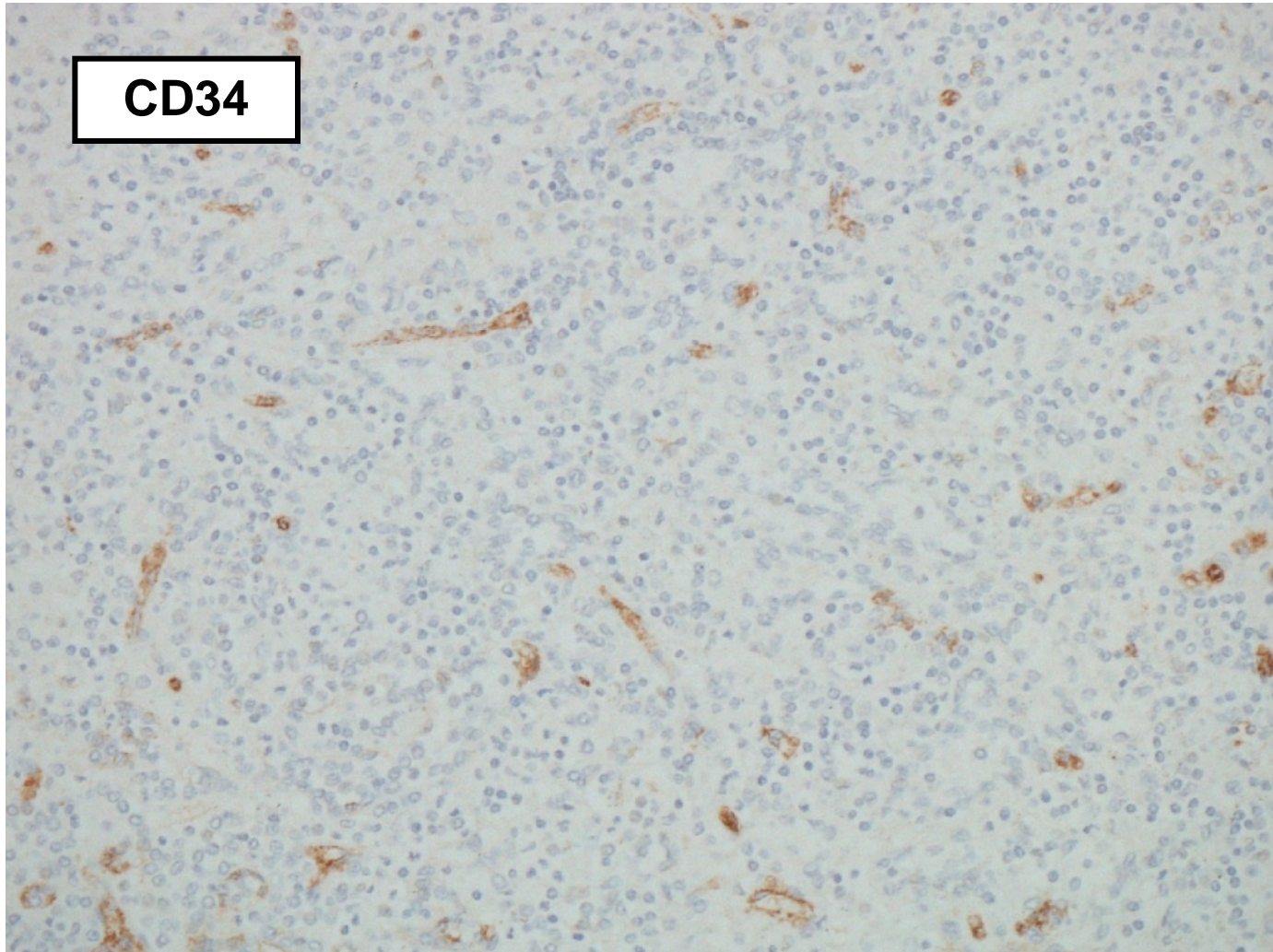


CD8

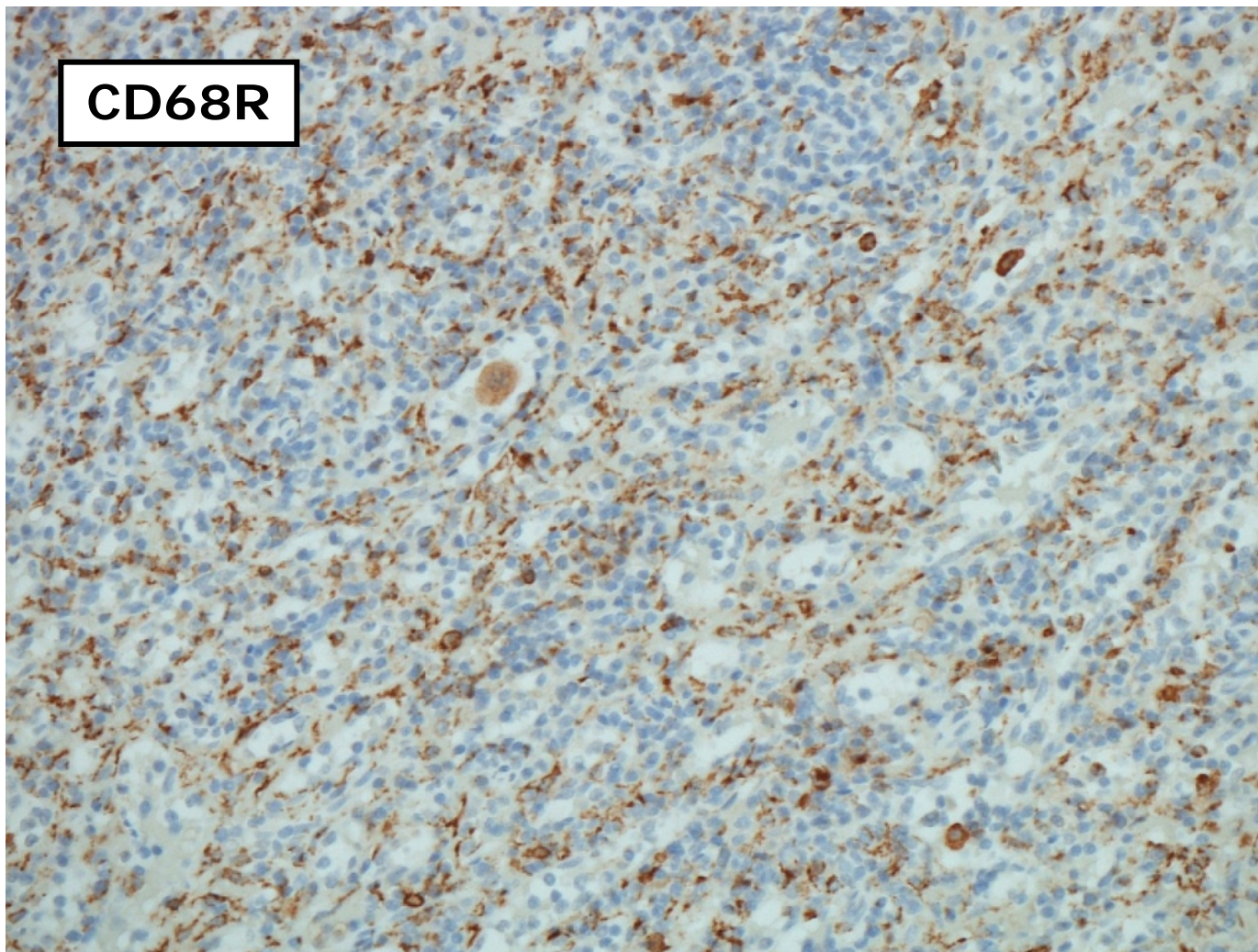




**CD34**



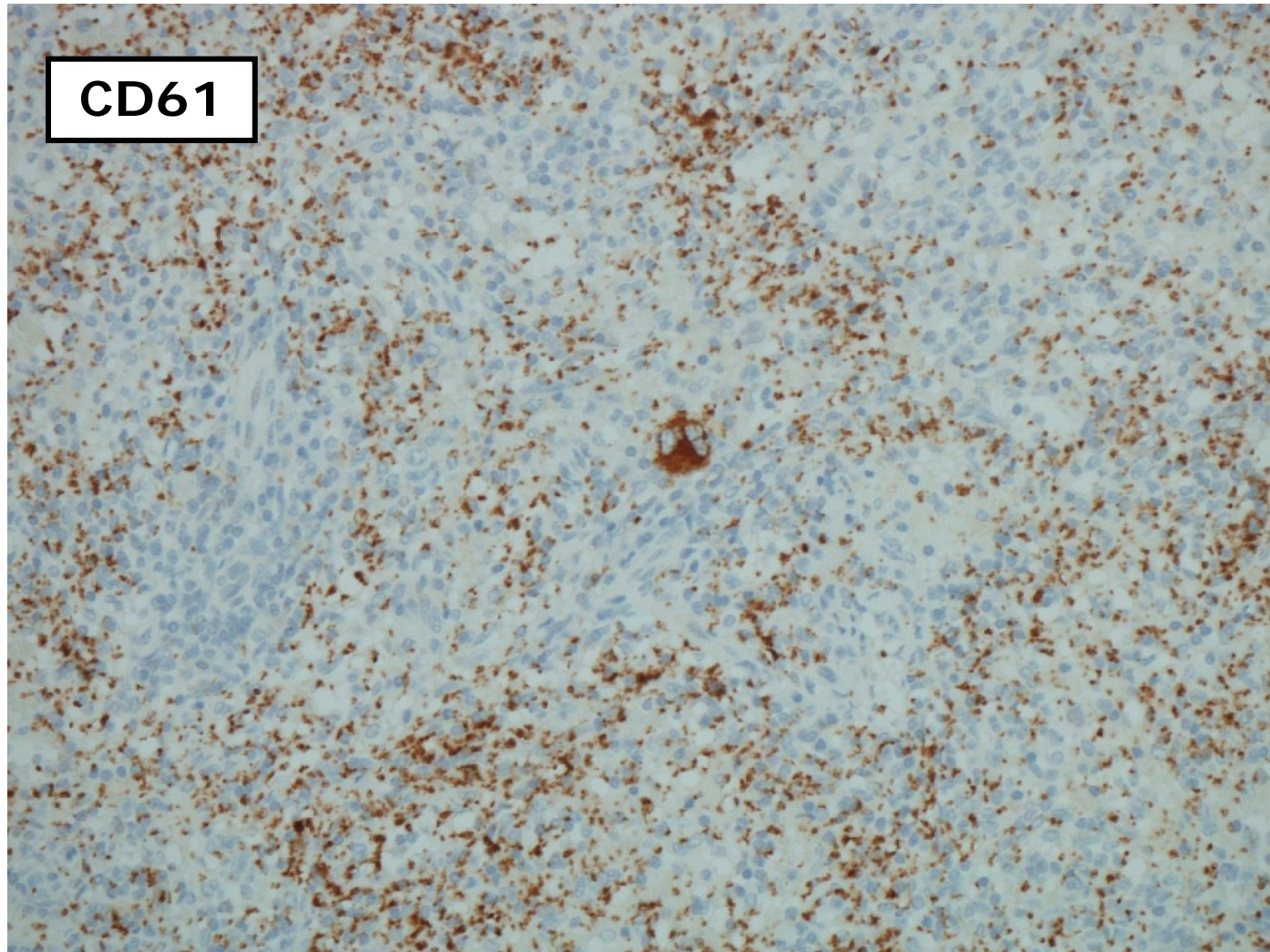
**CD68R**





# Platelets and MK in RP are Normal

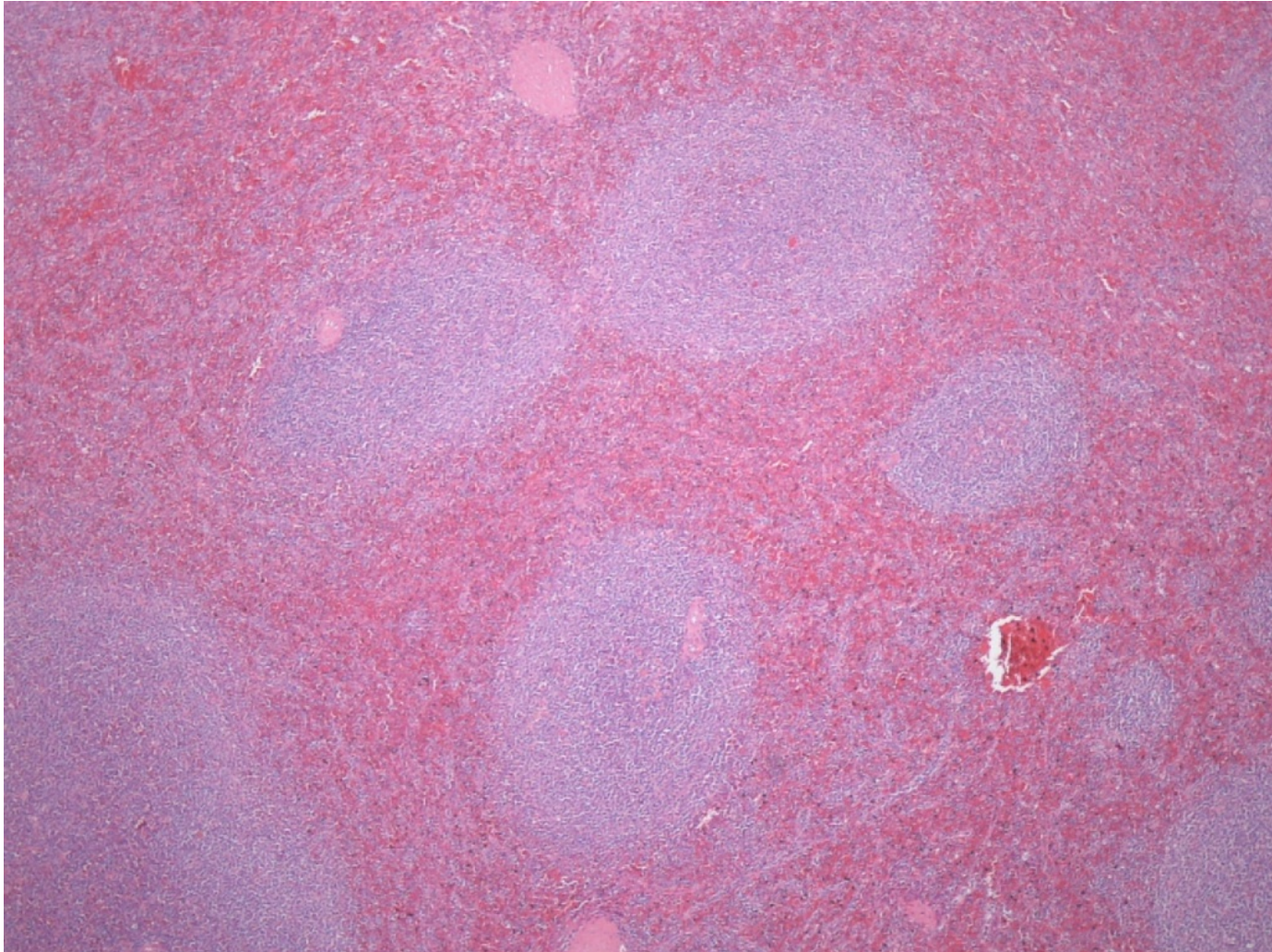
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# Splenic Marginal Zone Lymphoma

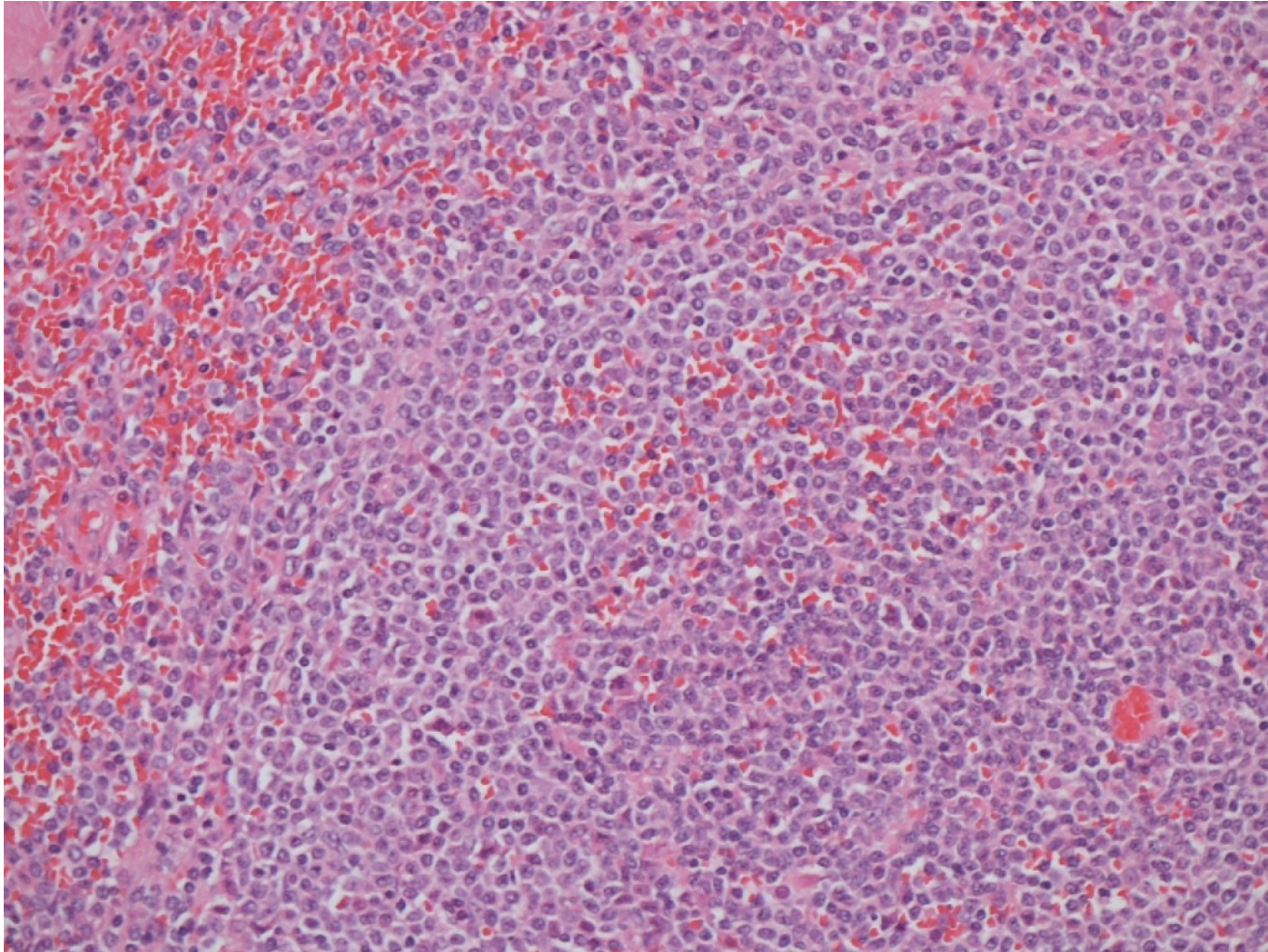
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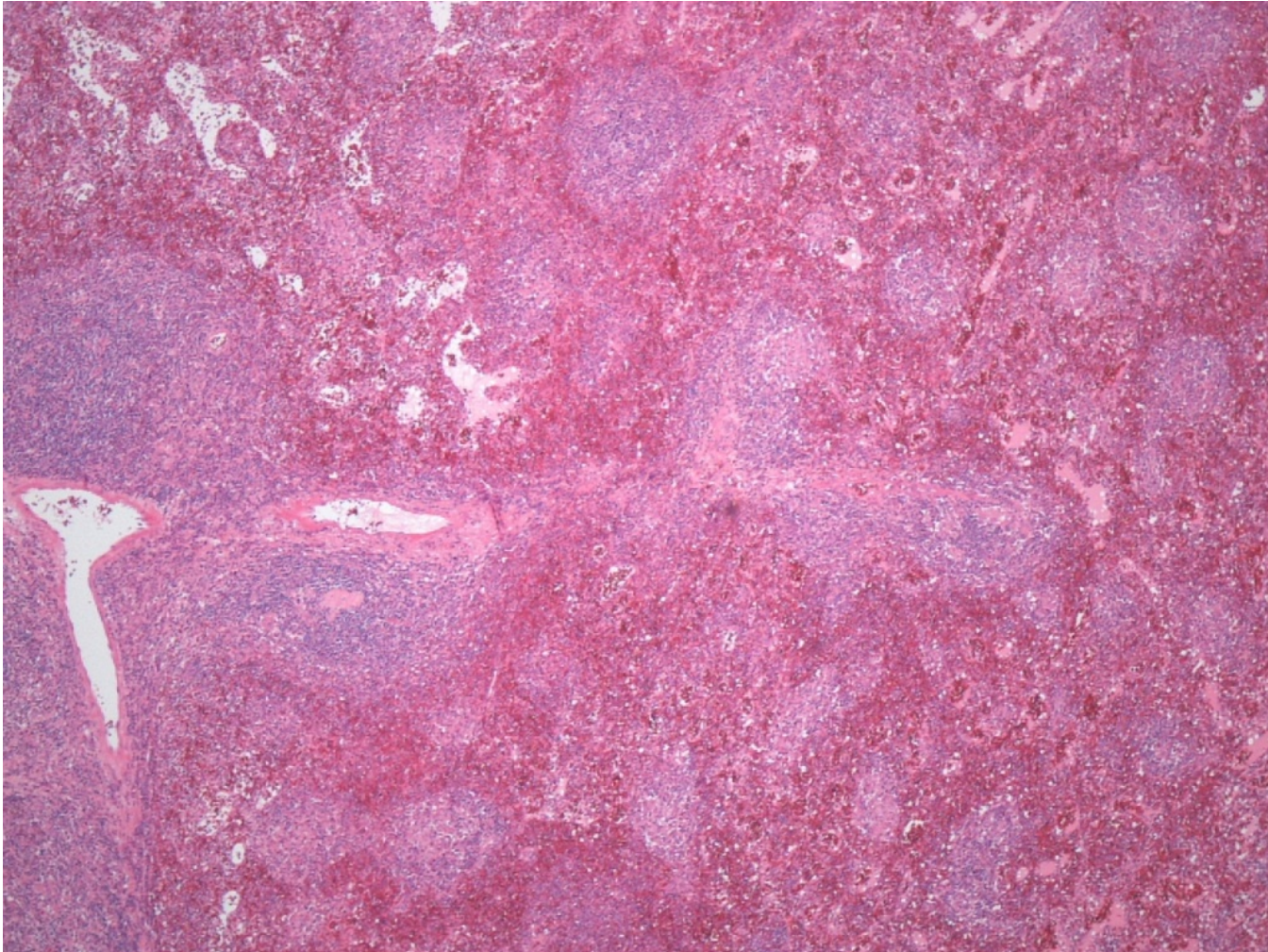
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# SMZL with Red Pulp Satellites

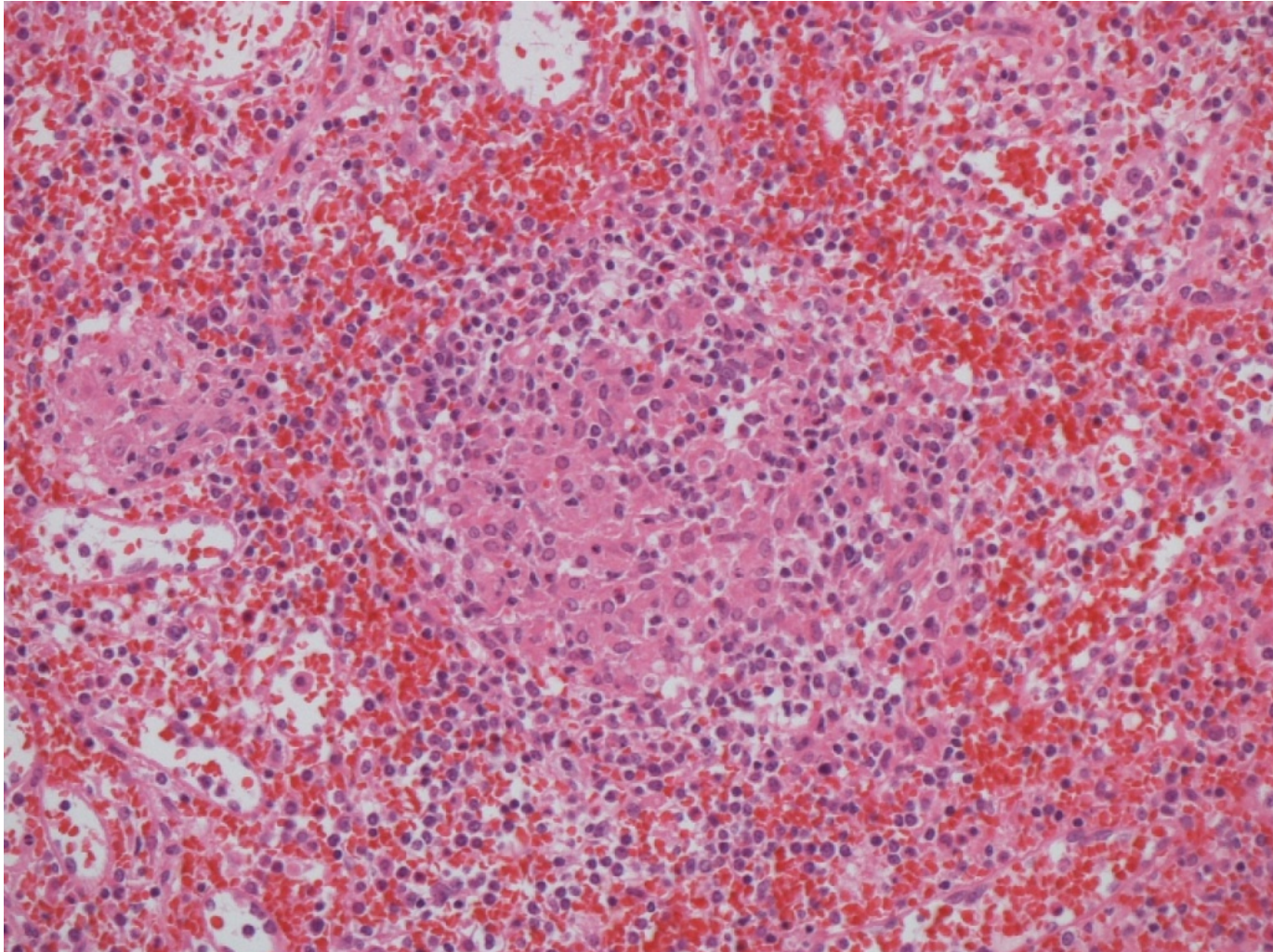
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# SMZL with Red Pulp Satellites

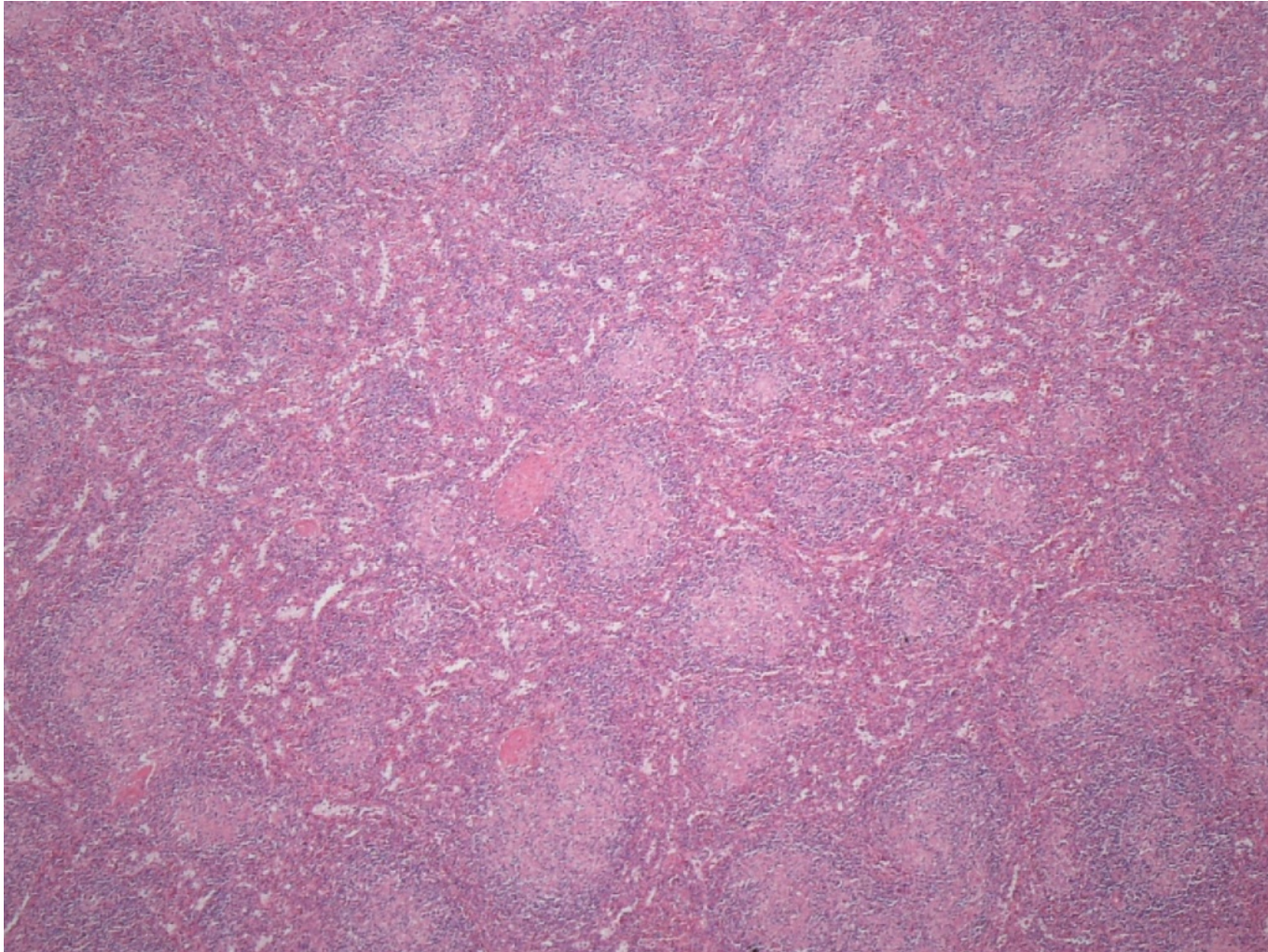
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# Splenic Micronodular T-cell/Histiocyte rich Large B-cell Lymphoma

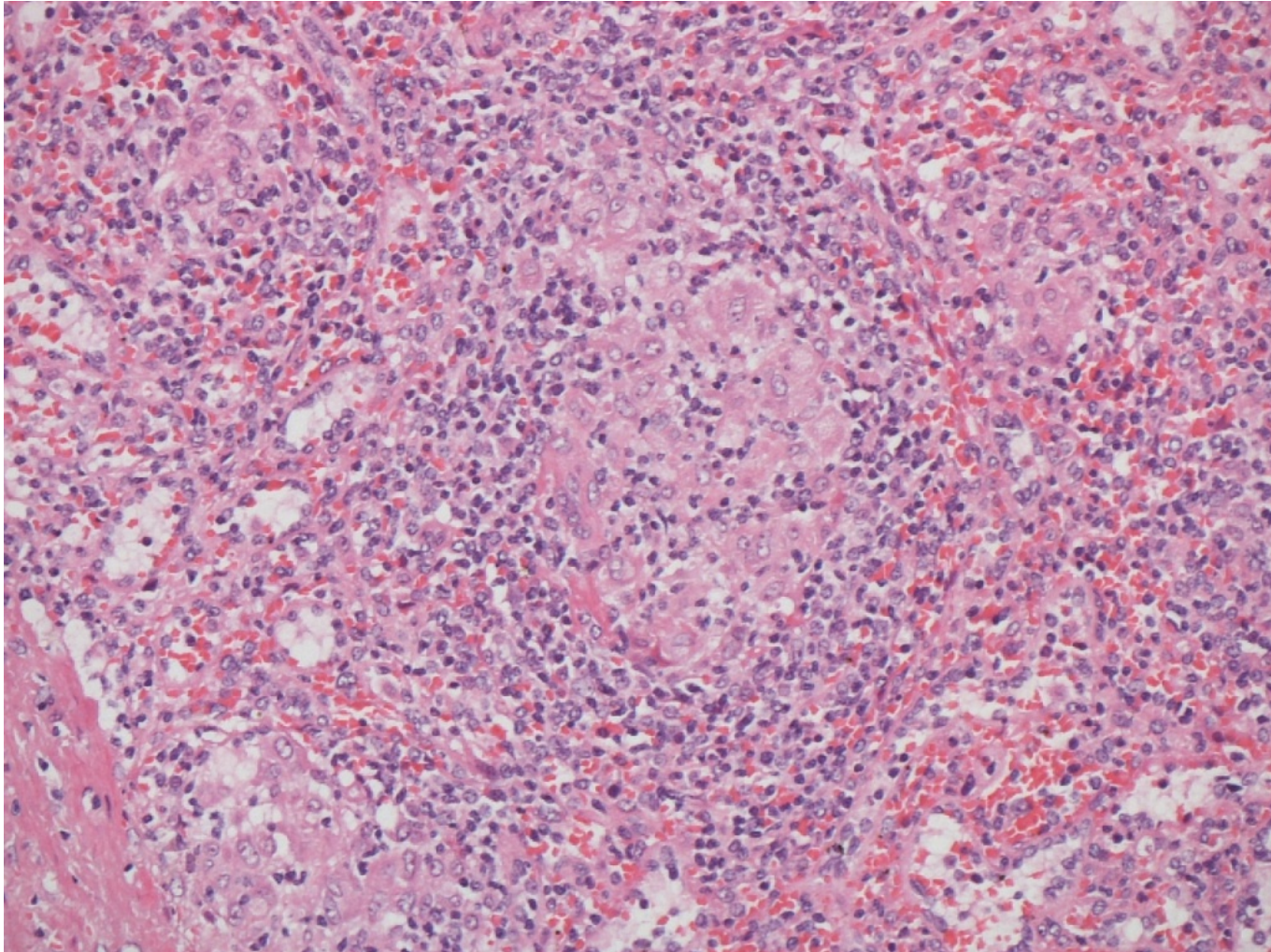
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# Splenic Micronodular THrLBL

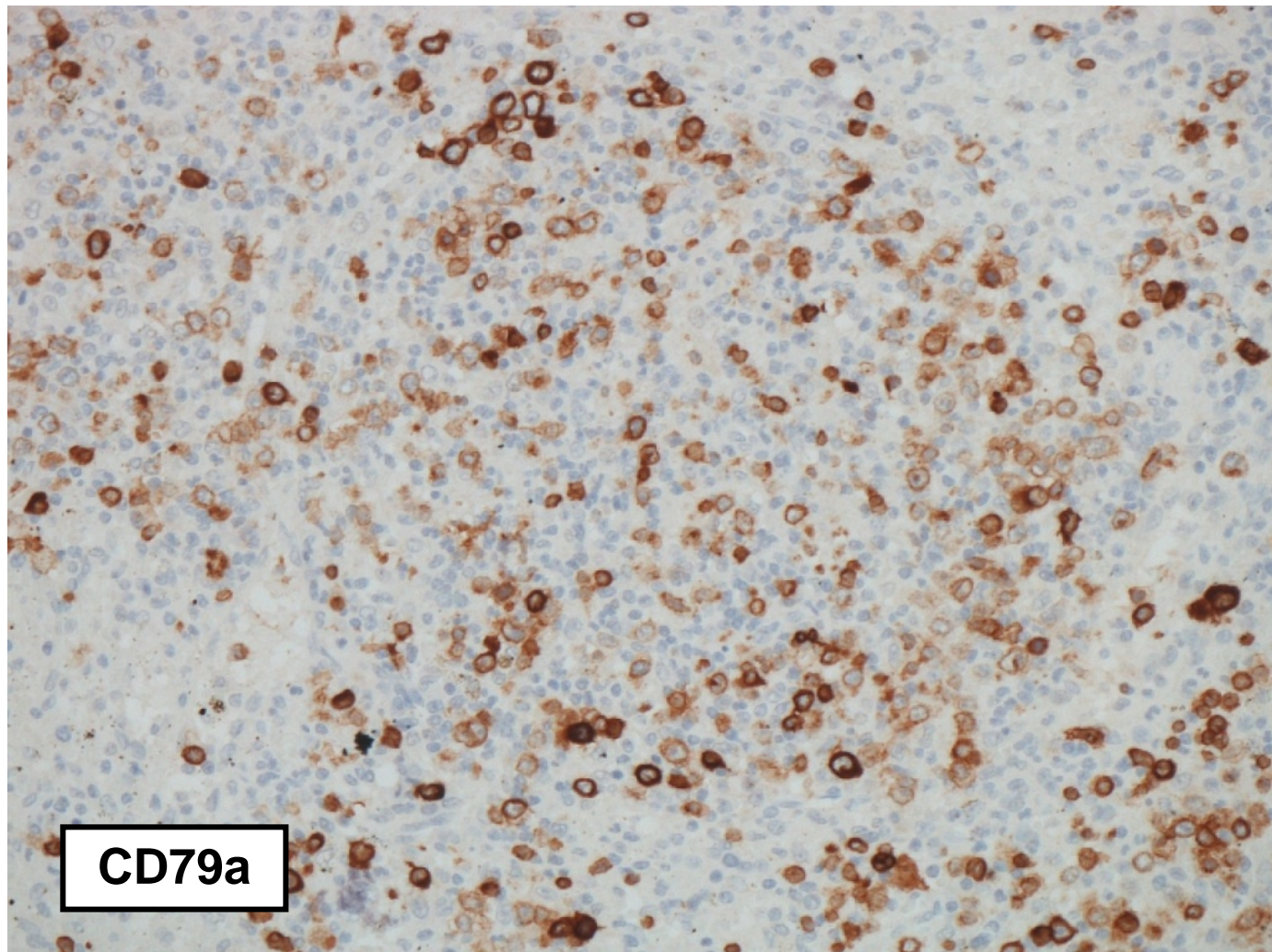
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# Splenic Micronodular THrLBL

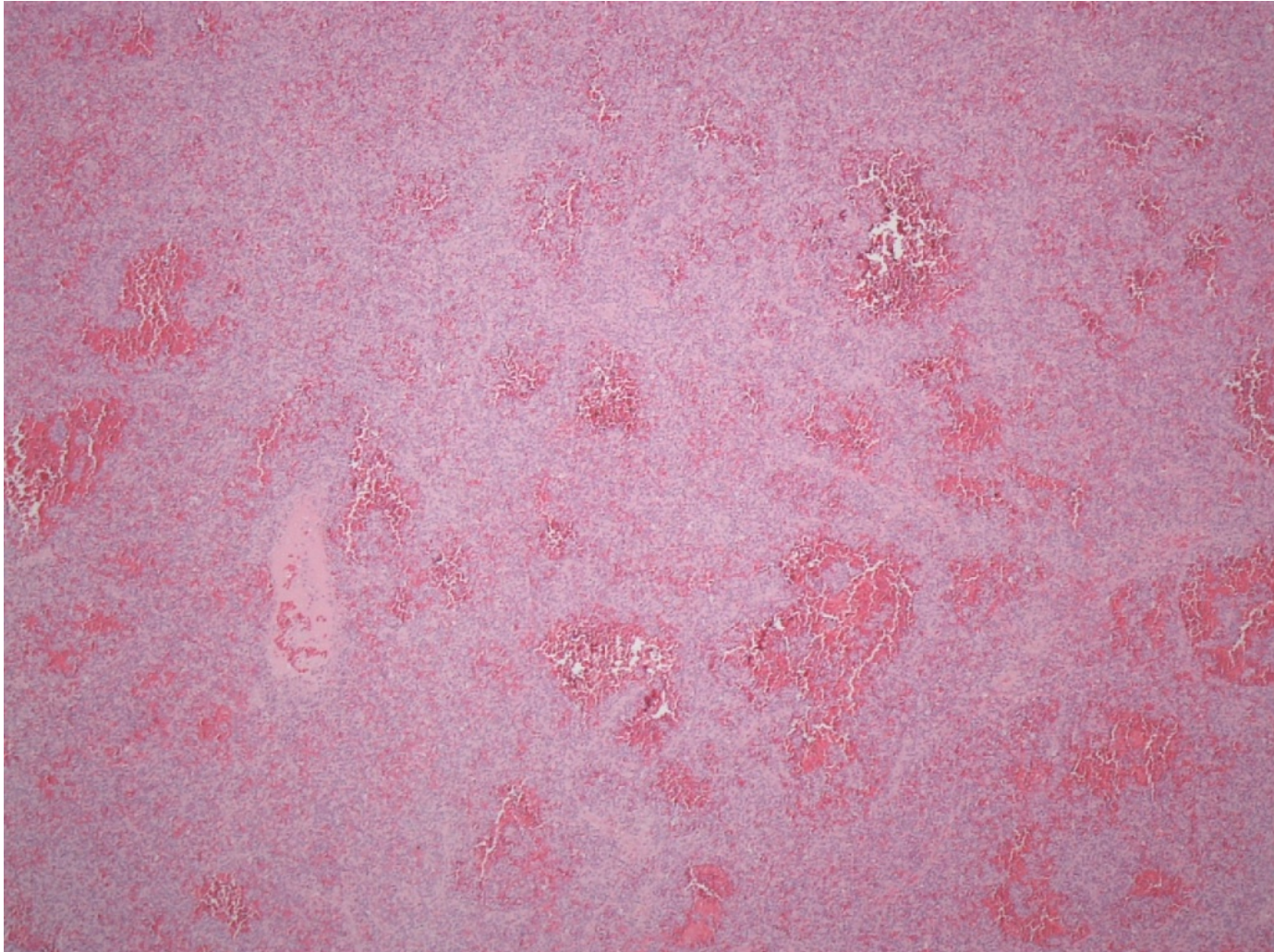
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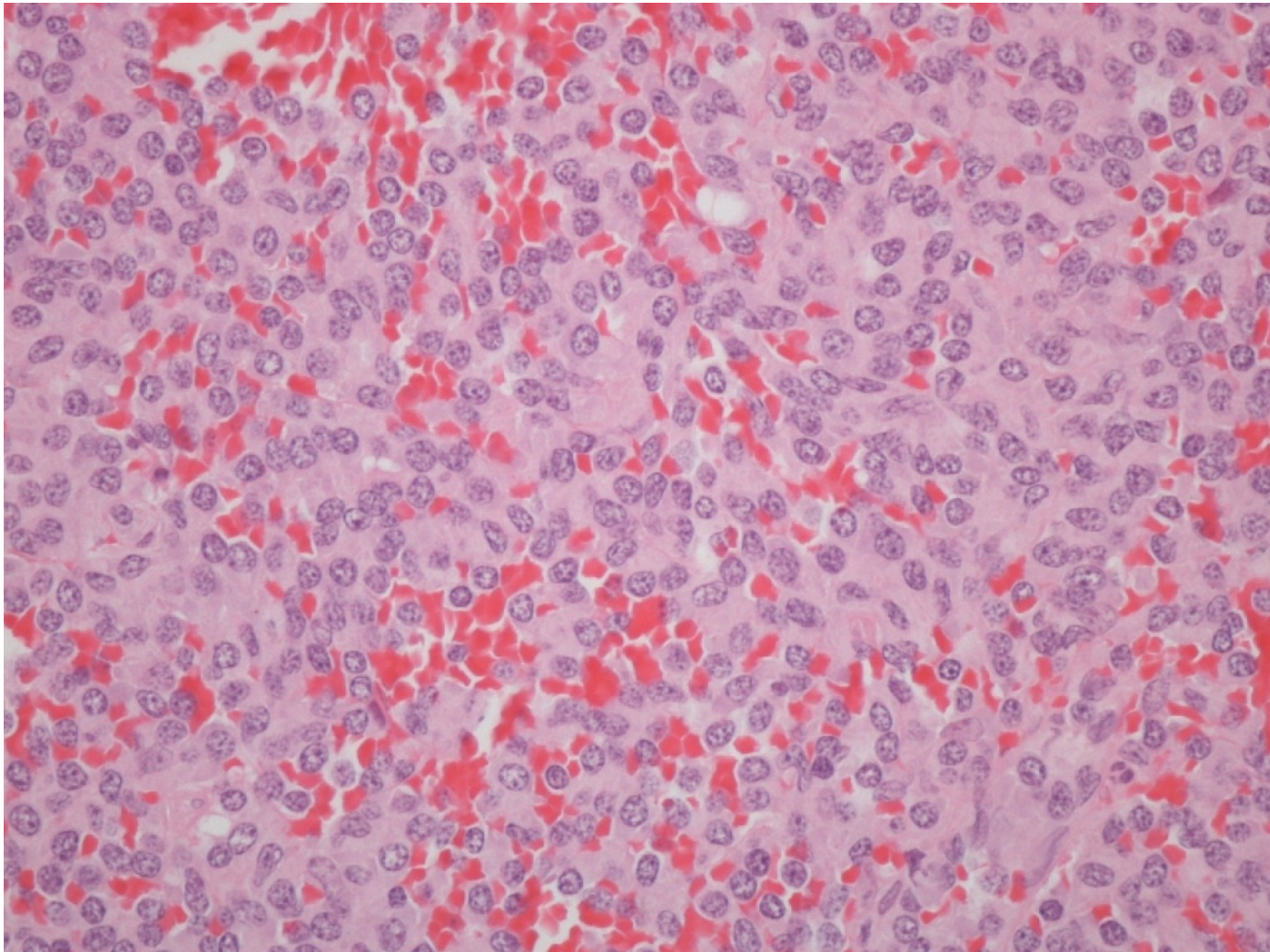
# Hairy Cell Leukaemia

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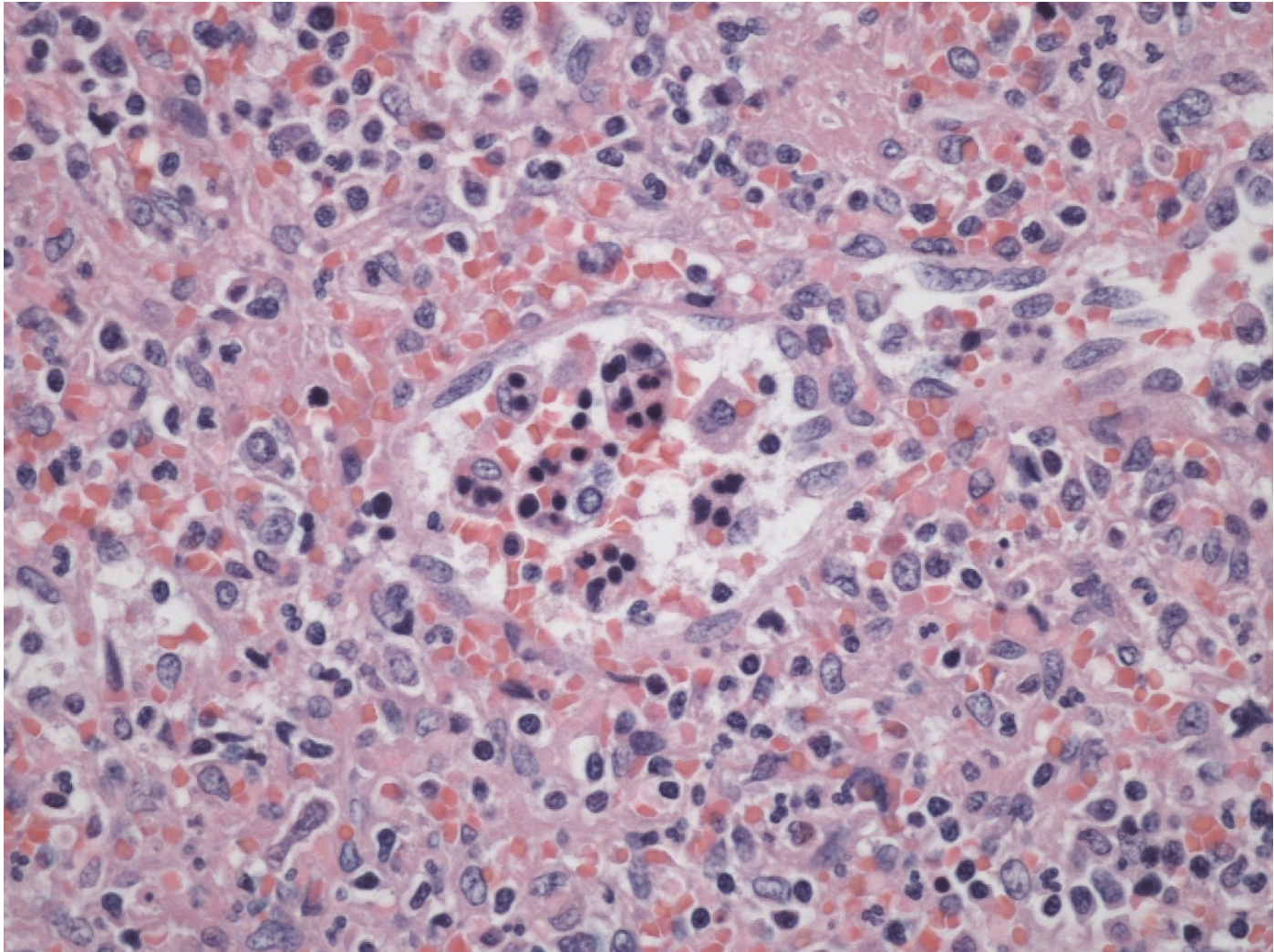
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# Haemophagocytosis

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# 'Incidental' extramedullary haemopoiesis

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