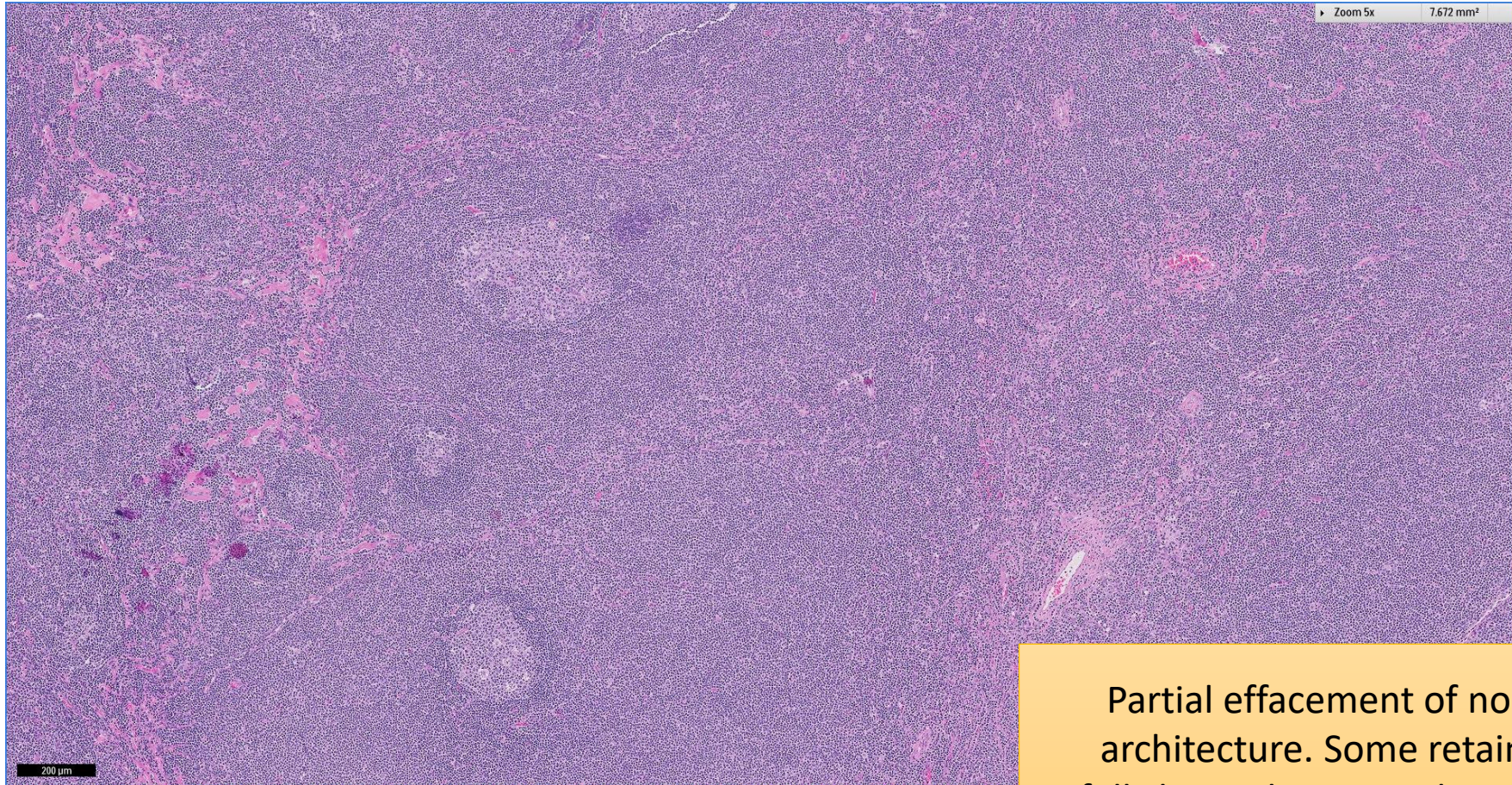


# SGH CASE 13: 17RE113

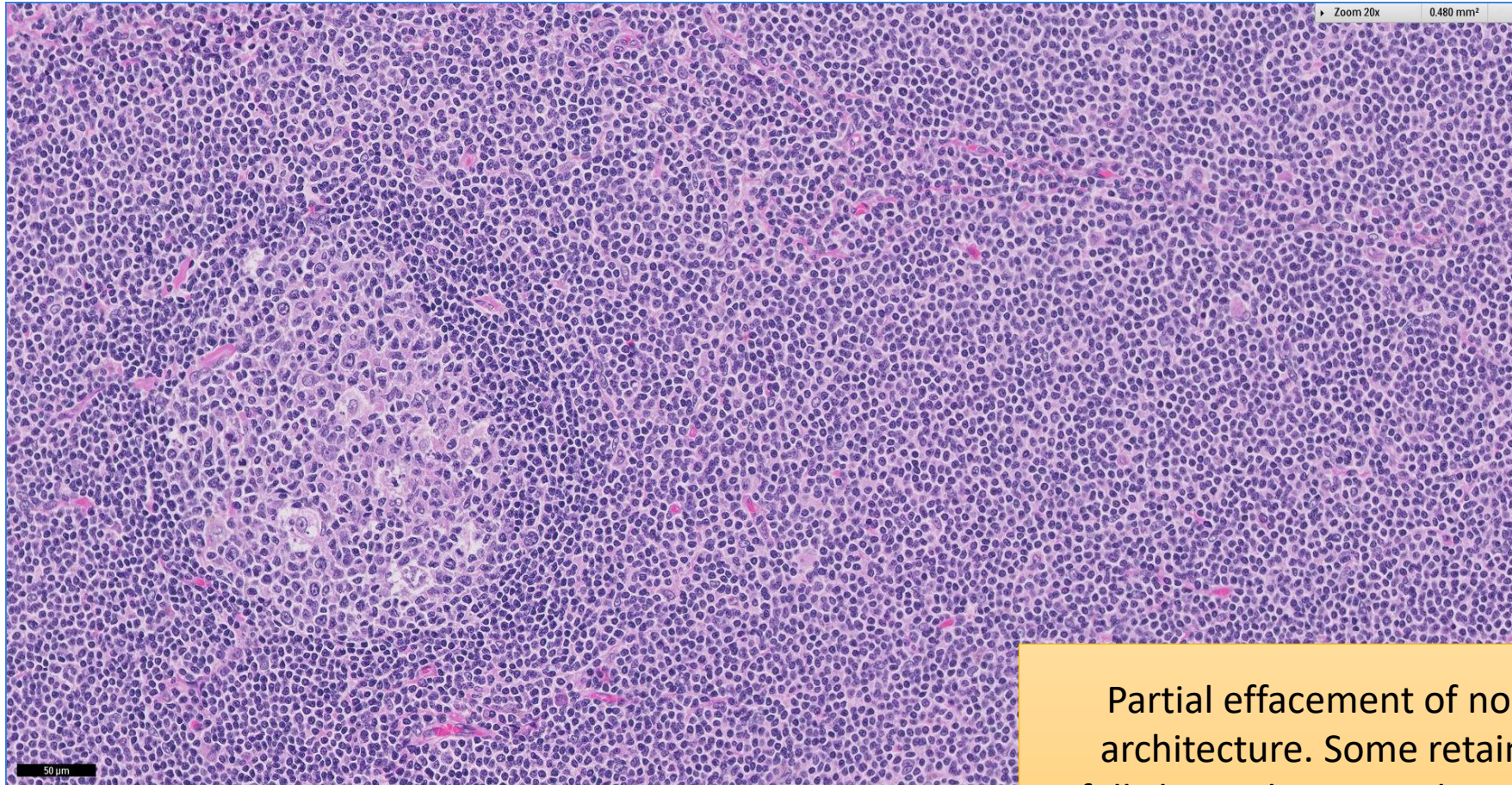
- Clinical History:
  - 50+ years old. Male
- Specimen:
  - Cervical lymph node excision biopsy.

# SGH CASE 13: 17RE113 H&E



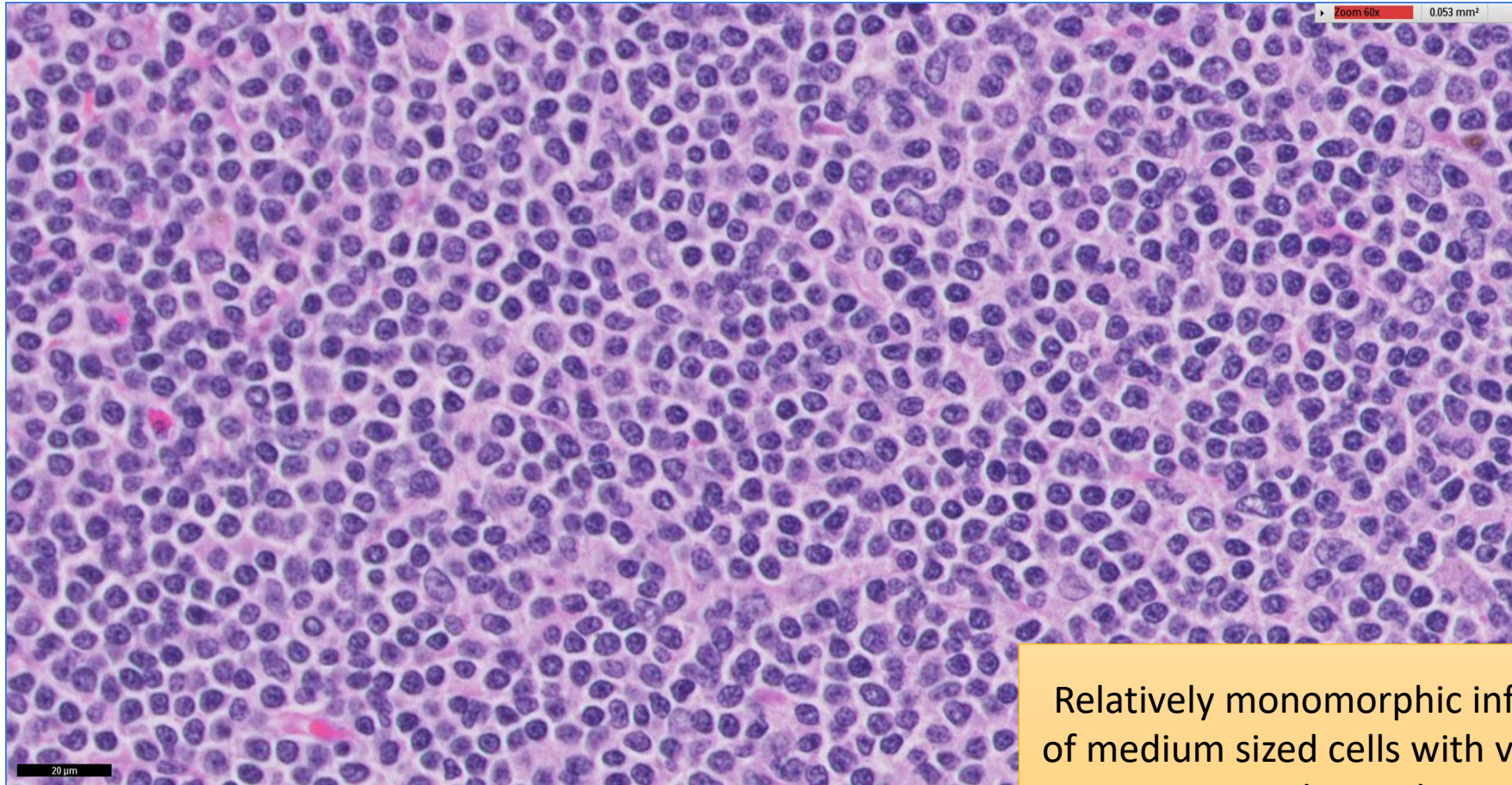
Partial effacement of nodal architecture. Some retained follicles with germinal centres.

# SGH CASE 13: 17RE113 H&E



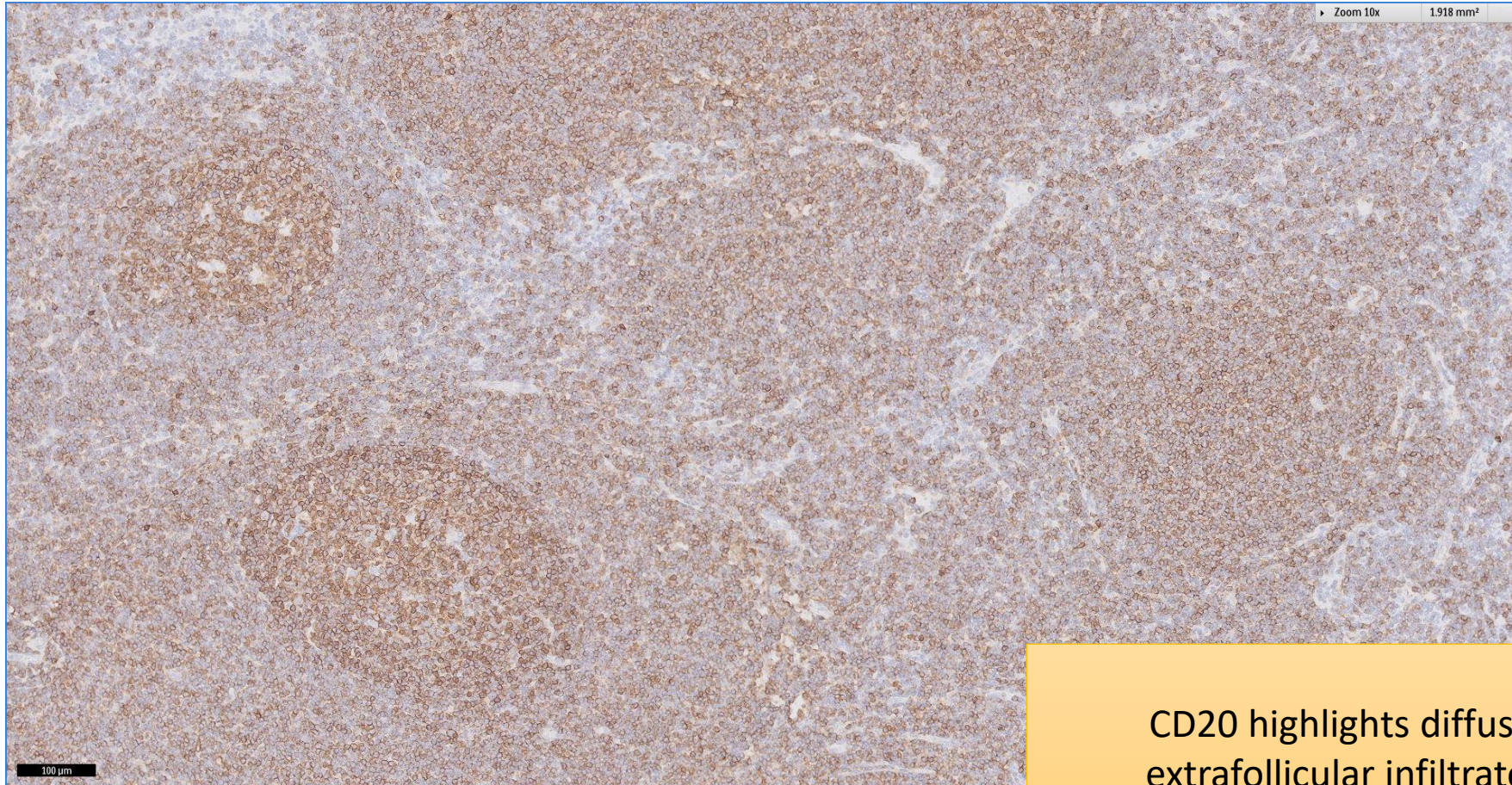
Partial effacement of nodal architecture. Some retained follicles with germinal centres.

# SGH CASE 13: 17RE113 H&E



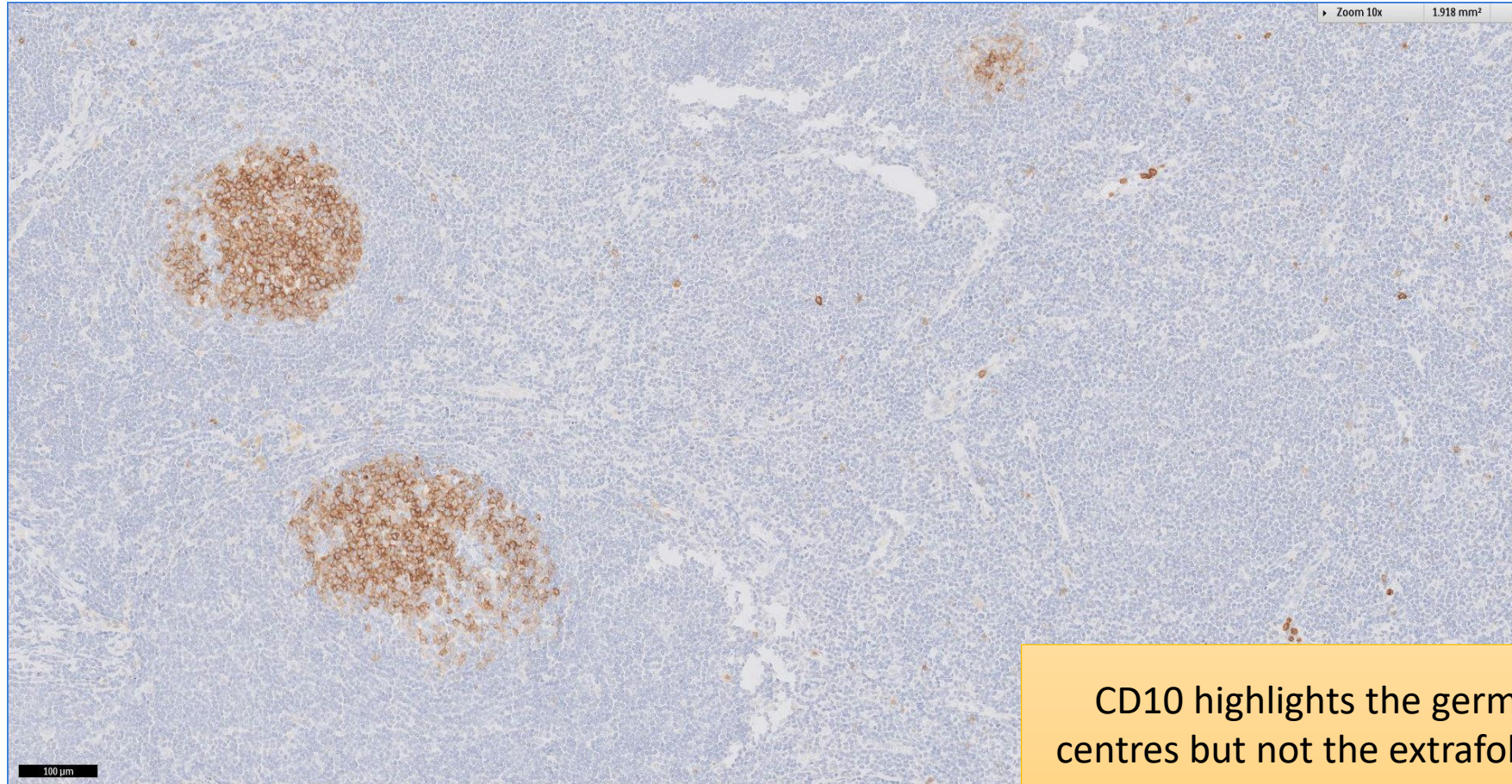
Relatively monomorphic infiltrate of medium sized cells with variably irregular nuclei.

# SGH CASE 13: 17RE113 CD20



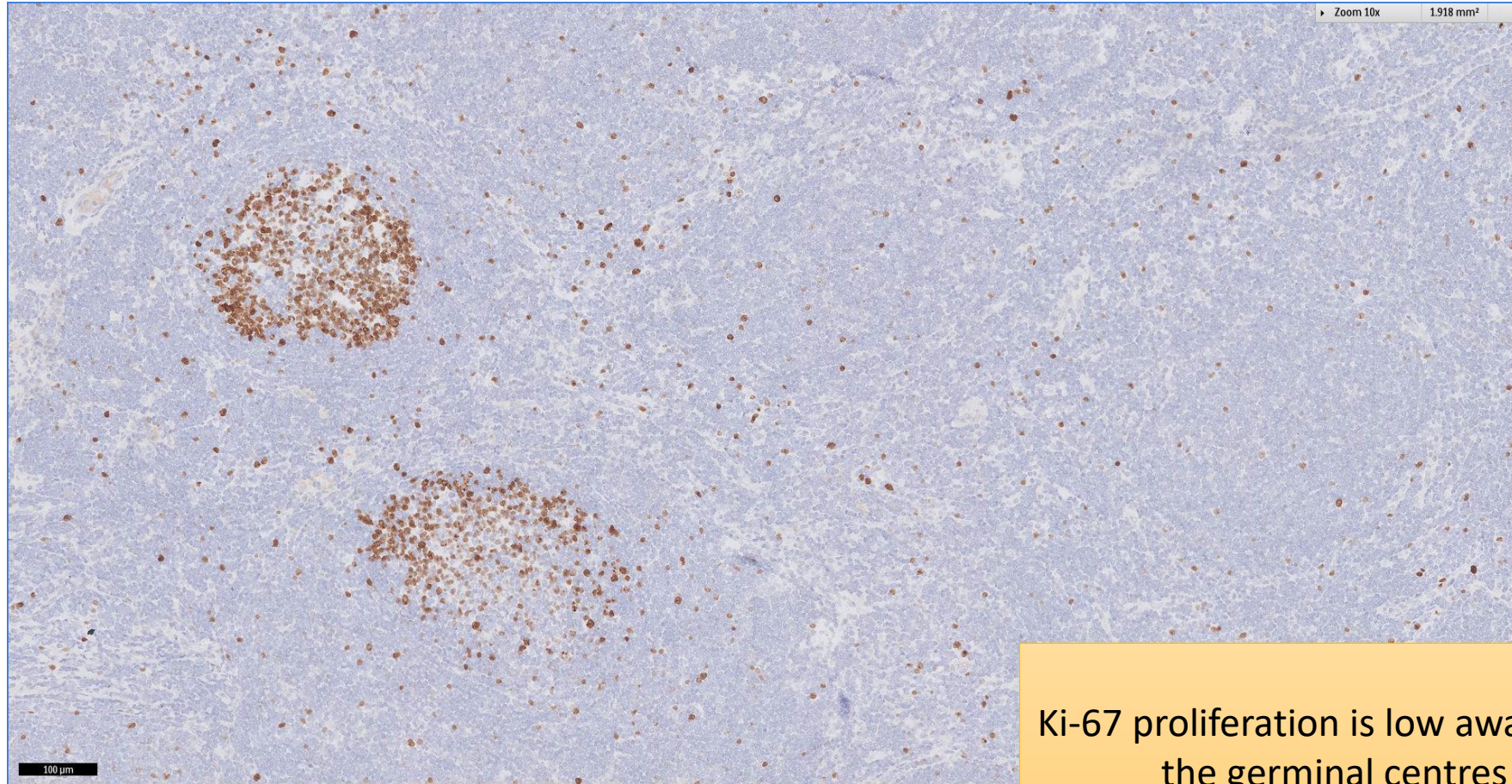
CD20 highlights diffuse  
extrafollicular infiltrate.

# SGH CASE 13: 17RE113 CD10



CD10 highlights the germinal centres but not the extrafollicular B-cell infiltrate

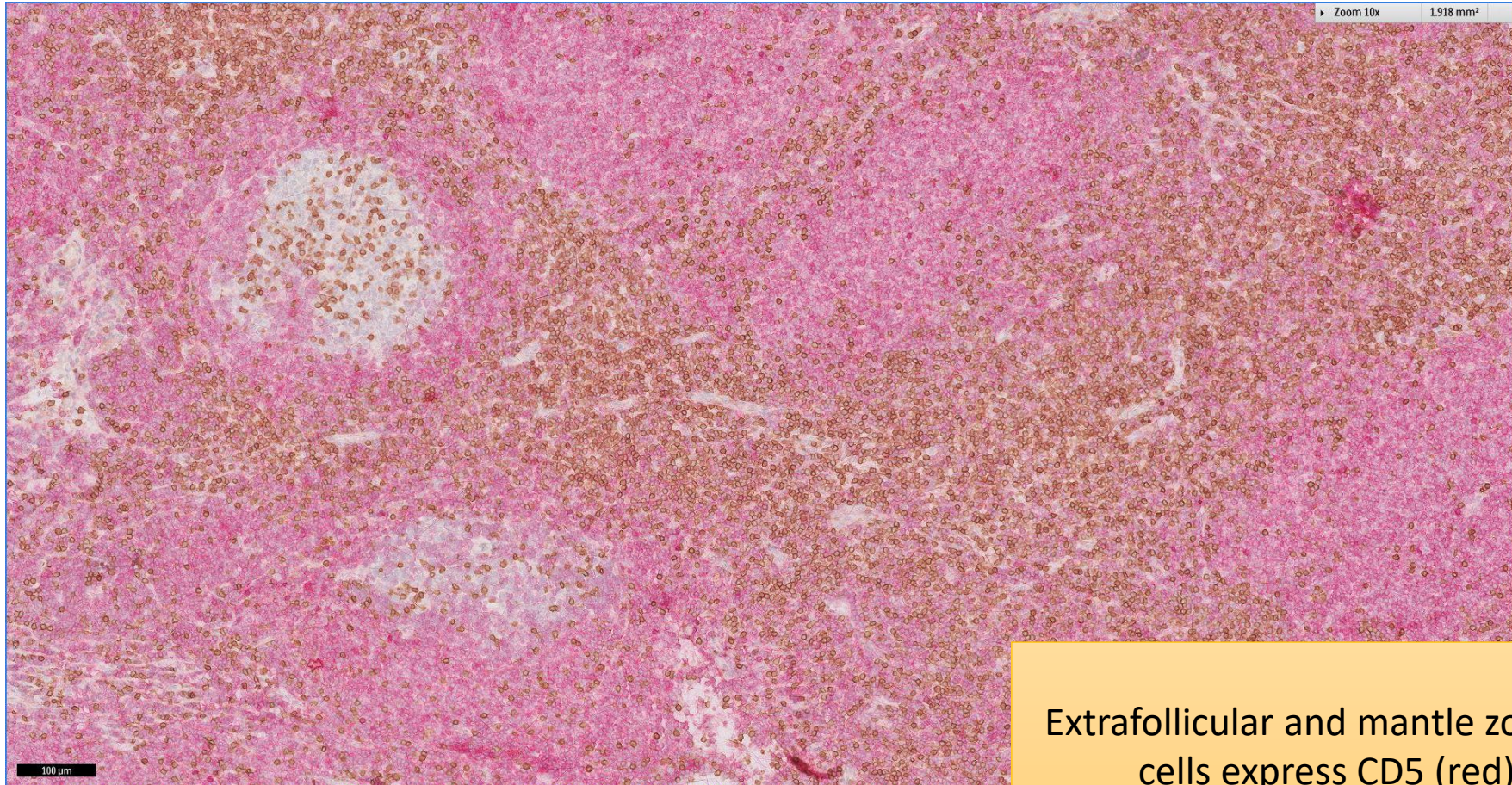
# SGH CASE 13: 17RE113 KI67



Ki-67 proliferation is low away from the germinal centres

# SGH CASE 13: 17RE113

## CD5(RED) CD3(BROWN)

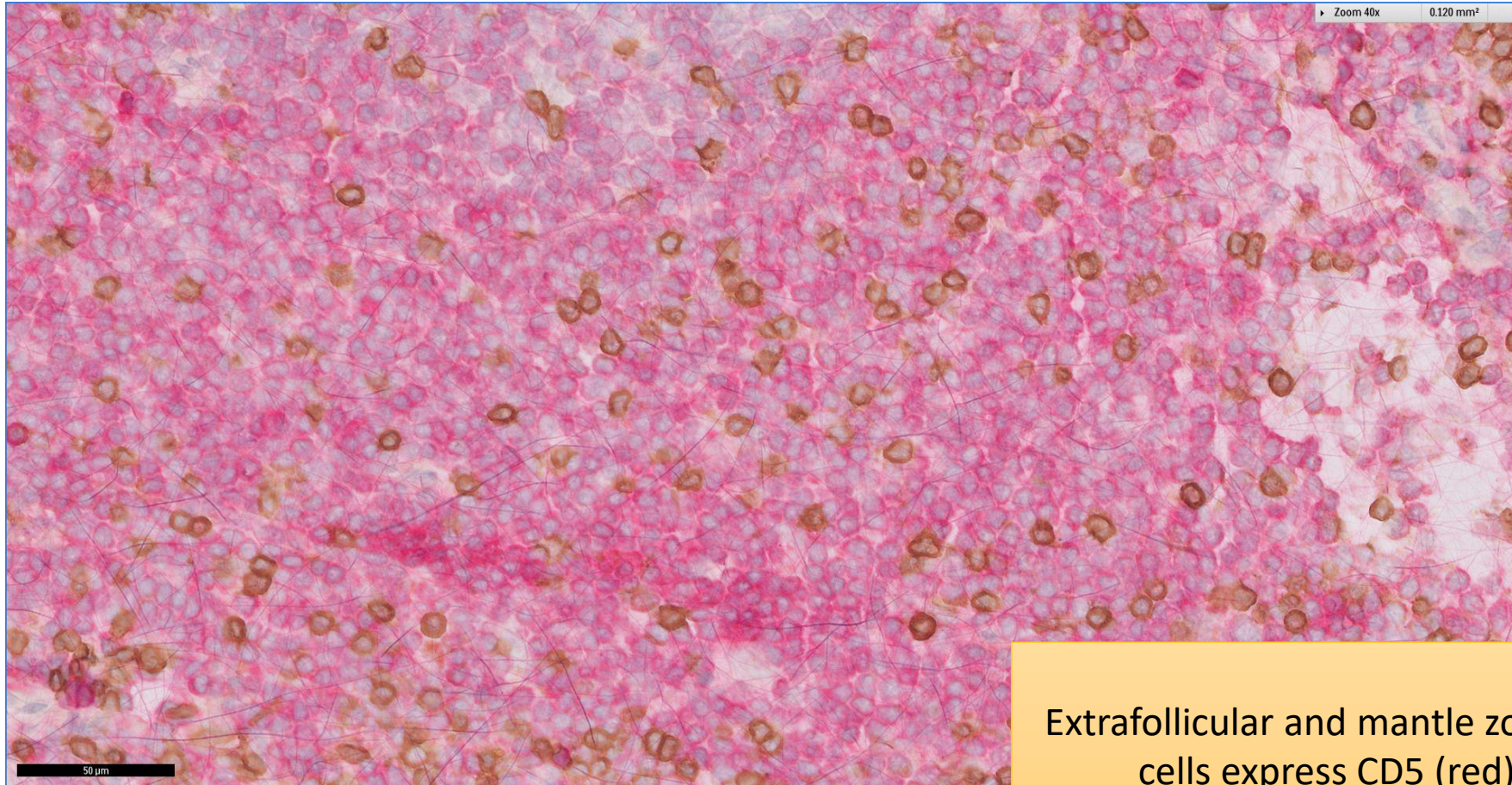


Extrafollicular and mantle zone B-cells express CD5 (red)



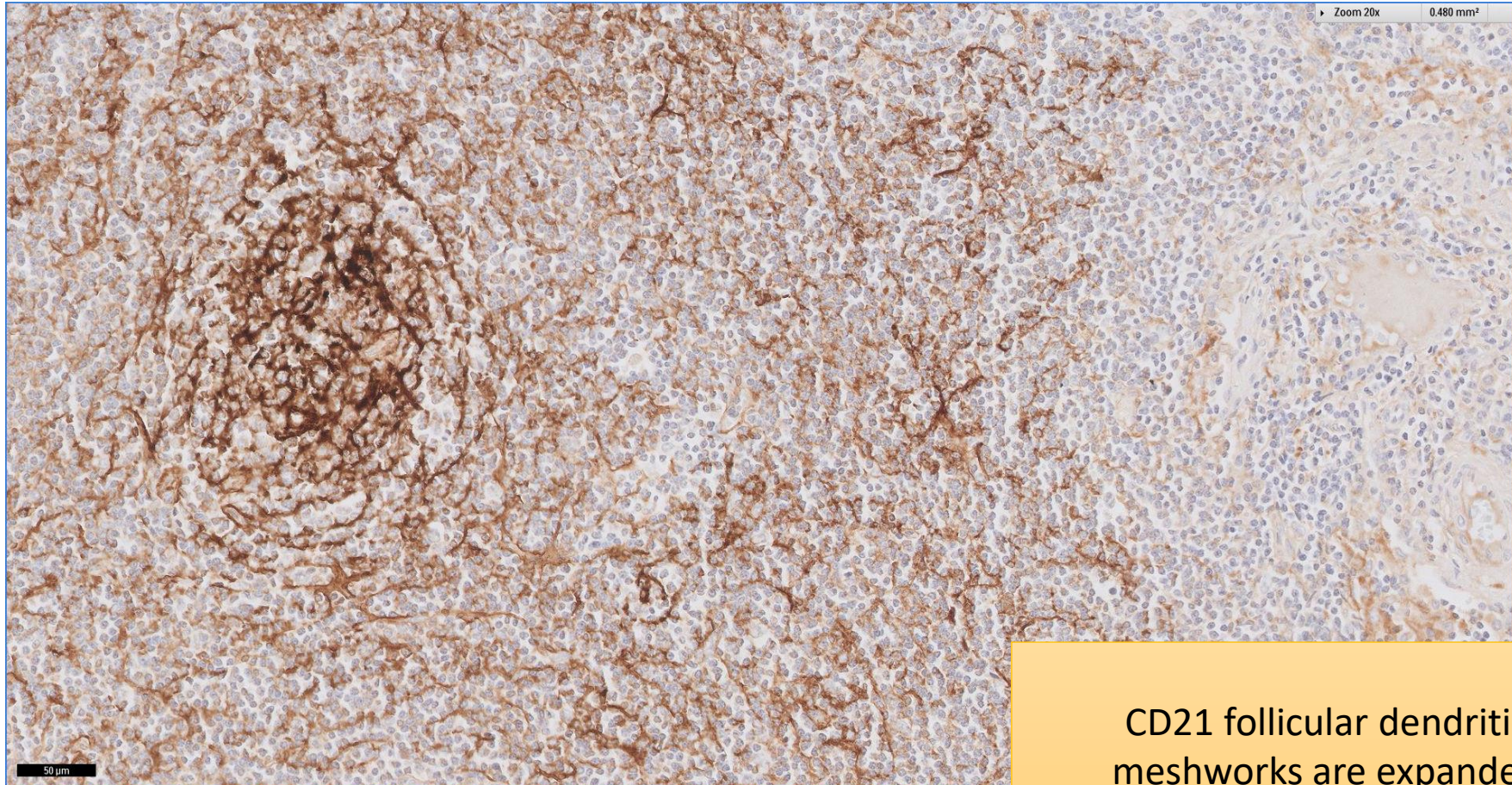
# SGH CASE 13: 17RE113

## CD5(RED) CD3(BROWN)



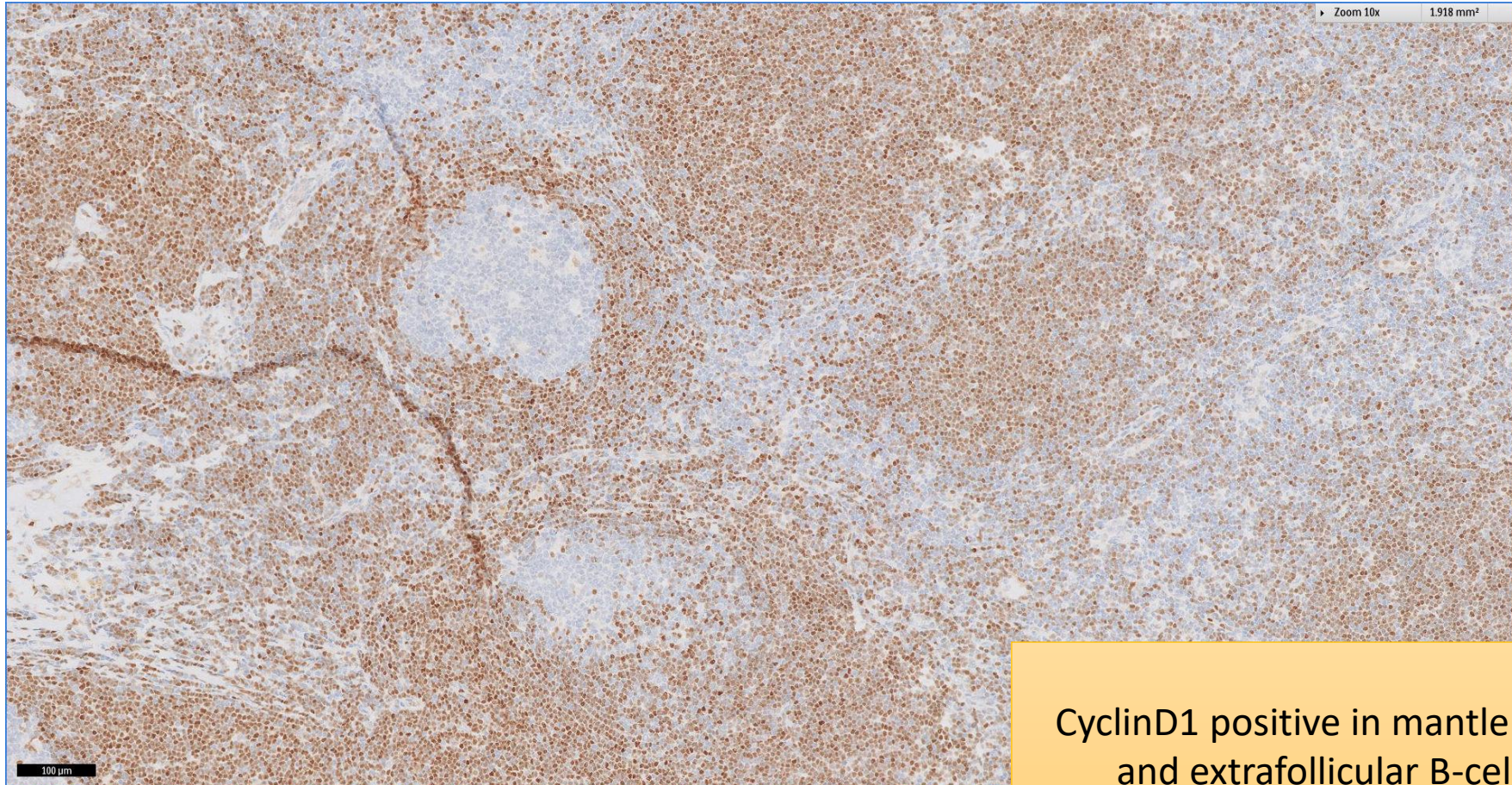
Extrafollicular and mantle zone B-cells express CD5 (red)

# SGH CASE 13: 17RE113 CD21



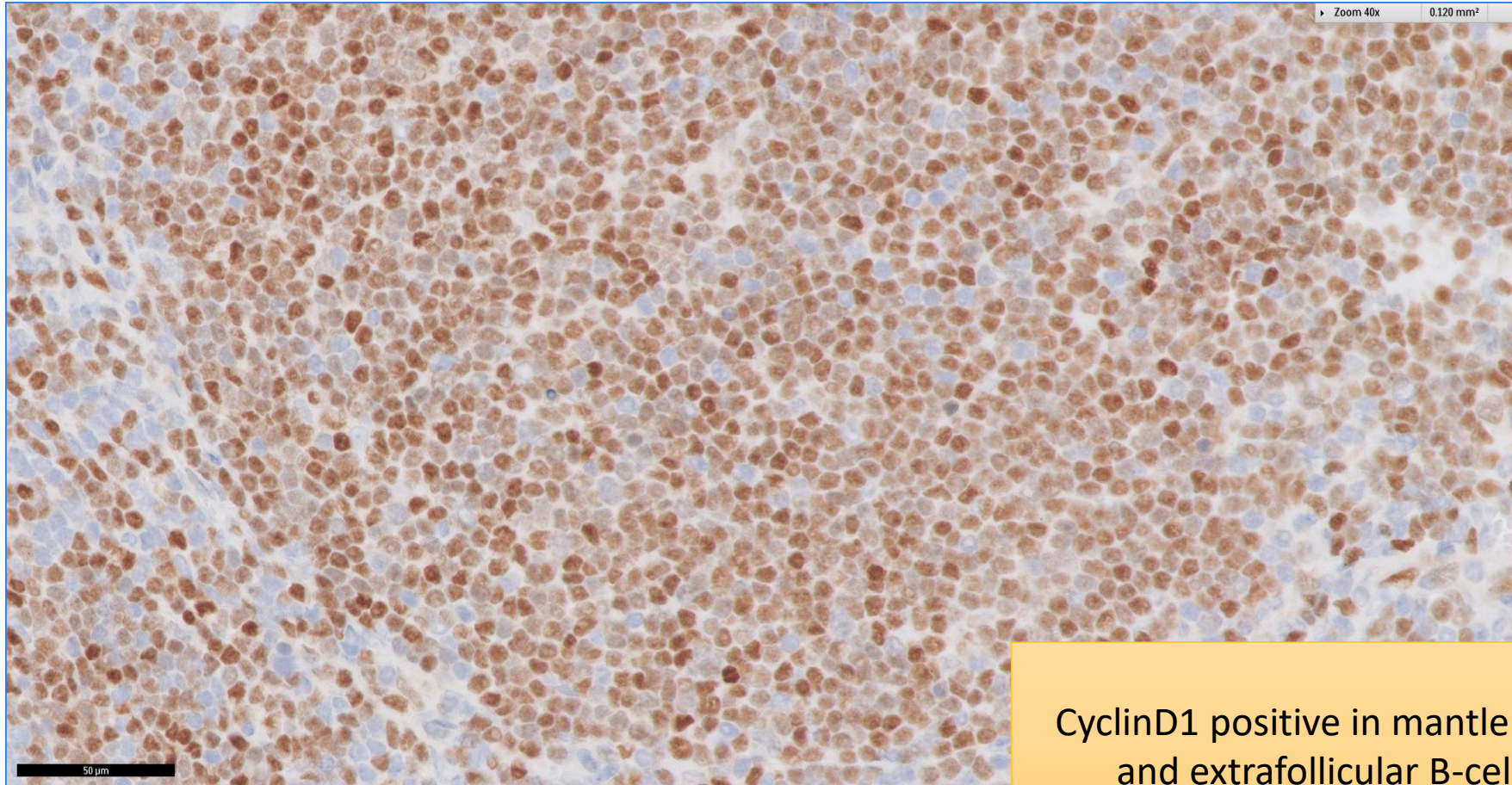
CD21 follicular dendritic  
meshworks are expanded

# SGH CASE 13: 17RE113 CYCLIN D1



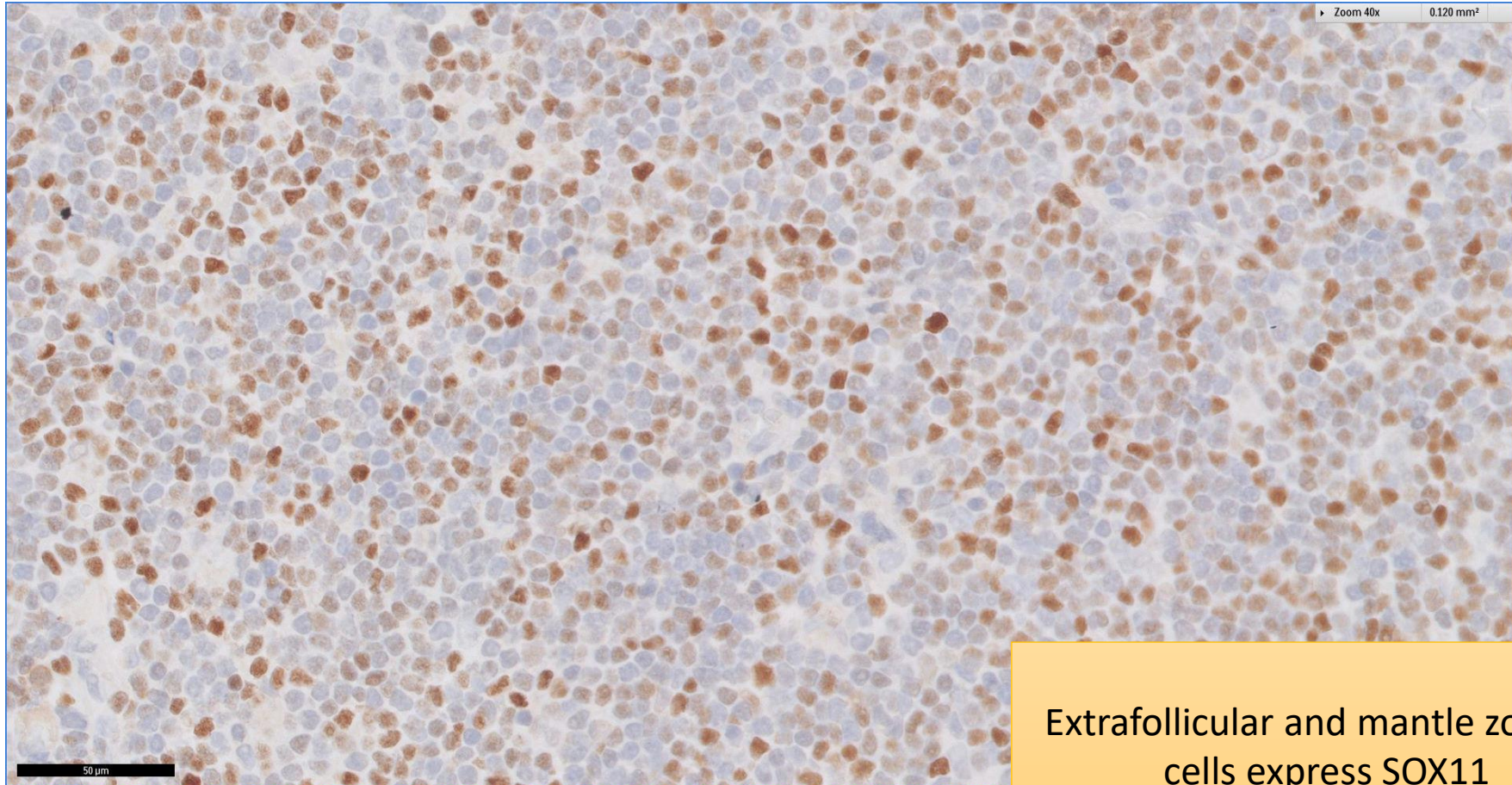
**CyclinD1 positive in mantle zone  
and extrafollicular B-cells**

# SGH CASE 13: 17RE113 CYCLIN D1



CyclinD1 positive in mantle zone  
and extrafollicular B-cells

# SGH CASE 13: 17RE113 SOX11



Extrafollicular and mantle zone B-cells express SOX11

# SGH CASE 13: 17RE113 Discussion (1)

- Summary of findings
  - Partial effacement of lymph node by monomorphic medium sized B-lymphomatous cells with “mantle zone pattern” around remnant follicles with germinal centres
  - Immunophenotype of lymphomatous B-cells
    - CD20, cyclin D1, CD5 and SOX11 positive
    - CD10 negative, mostly CD23 negative; downregulation of p27
- CCND1(11q13)/IGH(14q23) fusion probes is positive for CCND1/IGH fusion
- Differentiation of mantle zone pattern in mantle cell lymphoma (MCL) and in-situ mantle cell neoplasia
  - In-situ mantle cell neoplasia: cyclin D1 positive cells usually in inner mantle zone and sometimes scattered throughout the mantle zone.
  - When mantle zone is completely replaced by cyclin D1 positive lymphoid cells, it is best considered an MCL with mantle zone growth pattern.

# SGH CASE 13: 17RE113 Discussion (2)

- Final diagnosis
  - Mantle cell lymphoma.