

# Surgical Pathological Conference

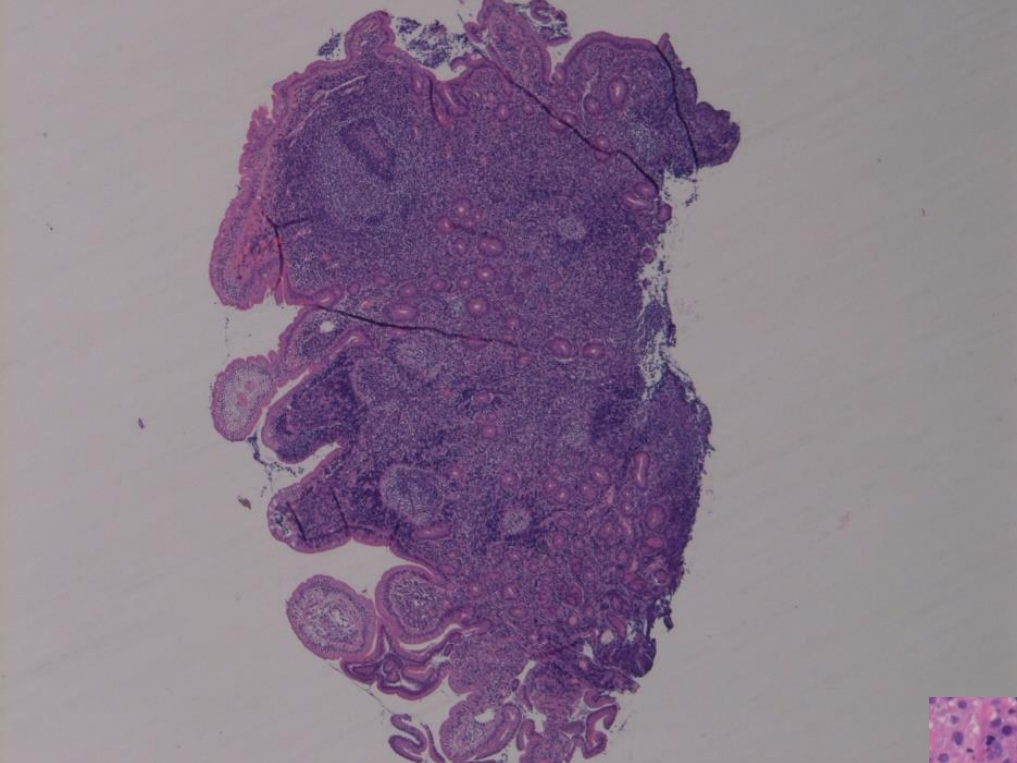
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Presented by Dr. W.K. Kwang

Anatomical Pathology

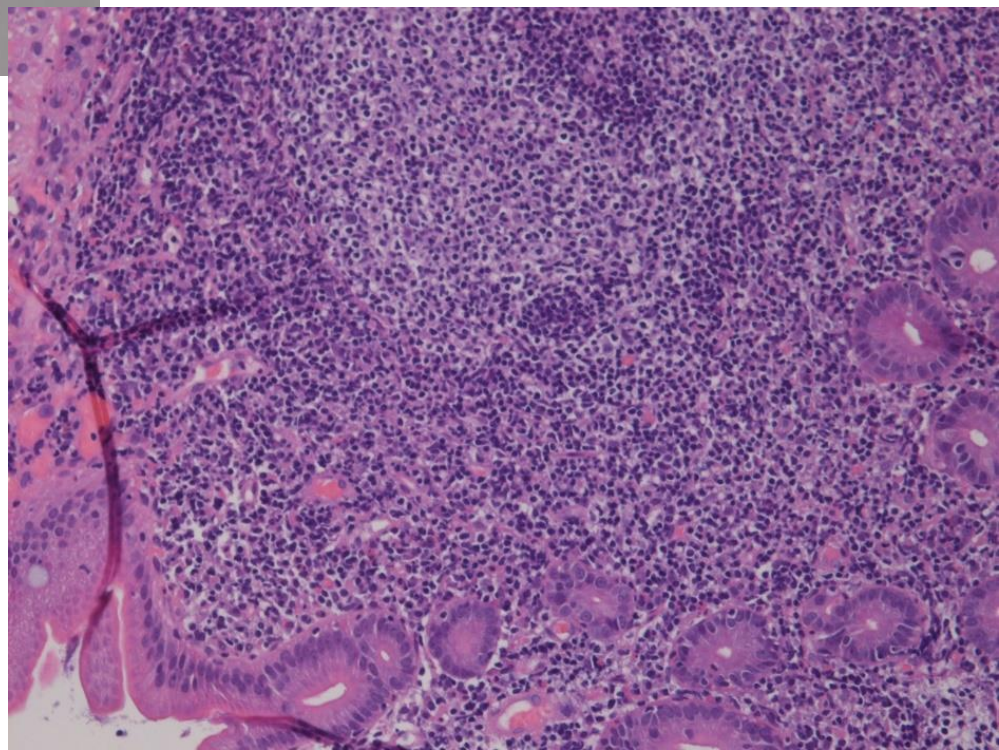
病理科-鄺偉剛醫師

2016-10-22

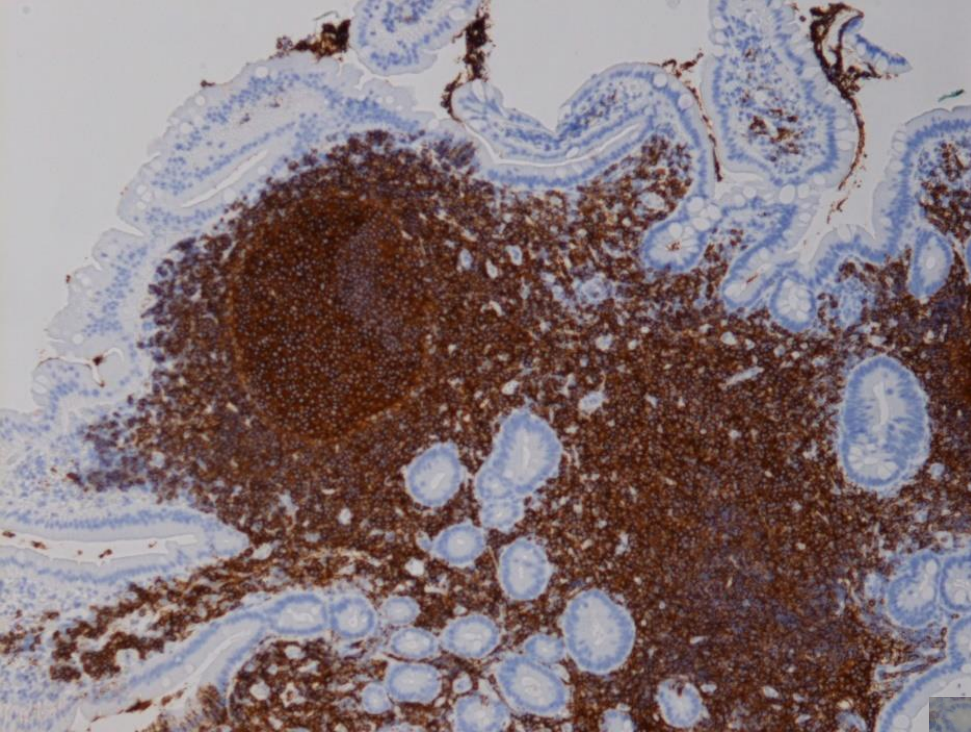


20X

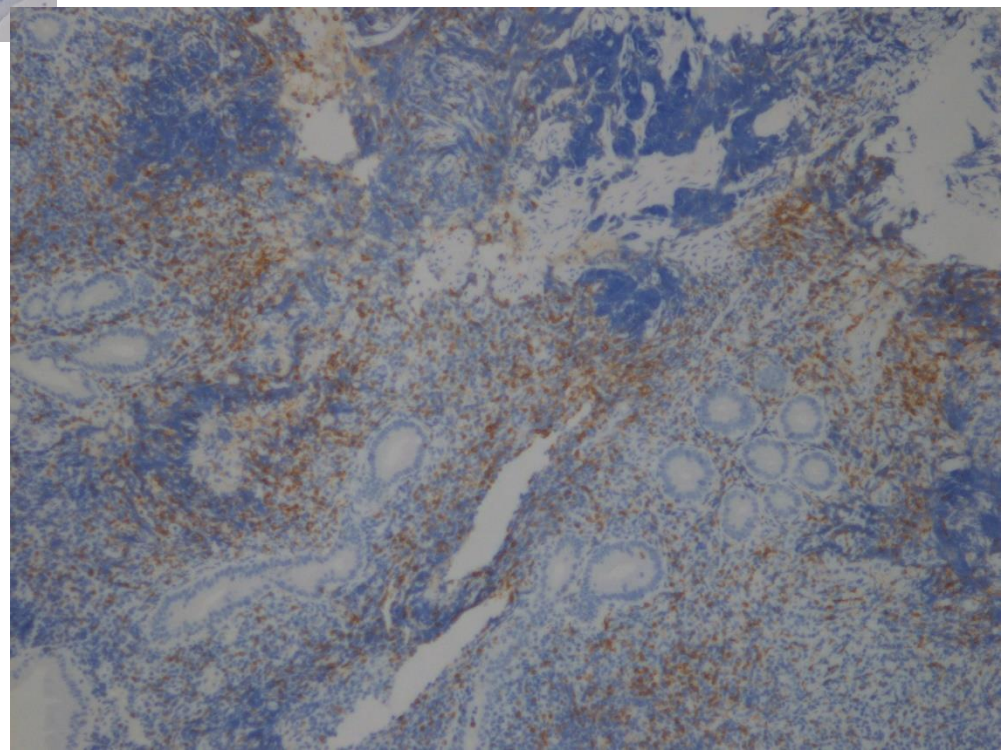
105-06589 Duodenum, biopsy



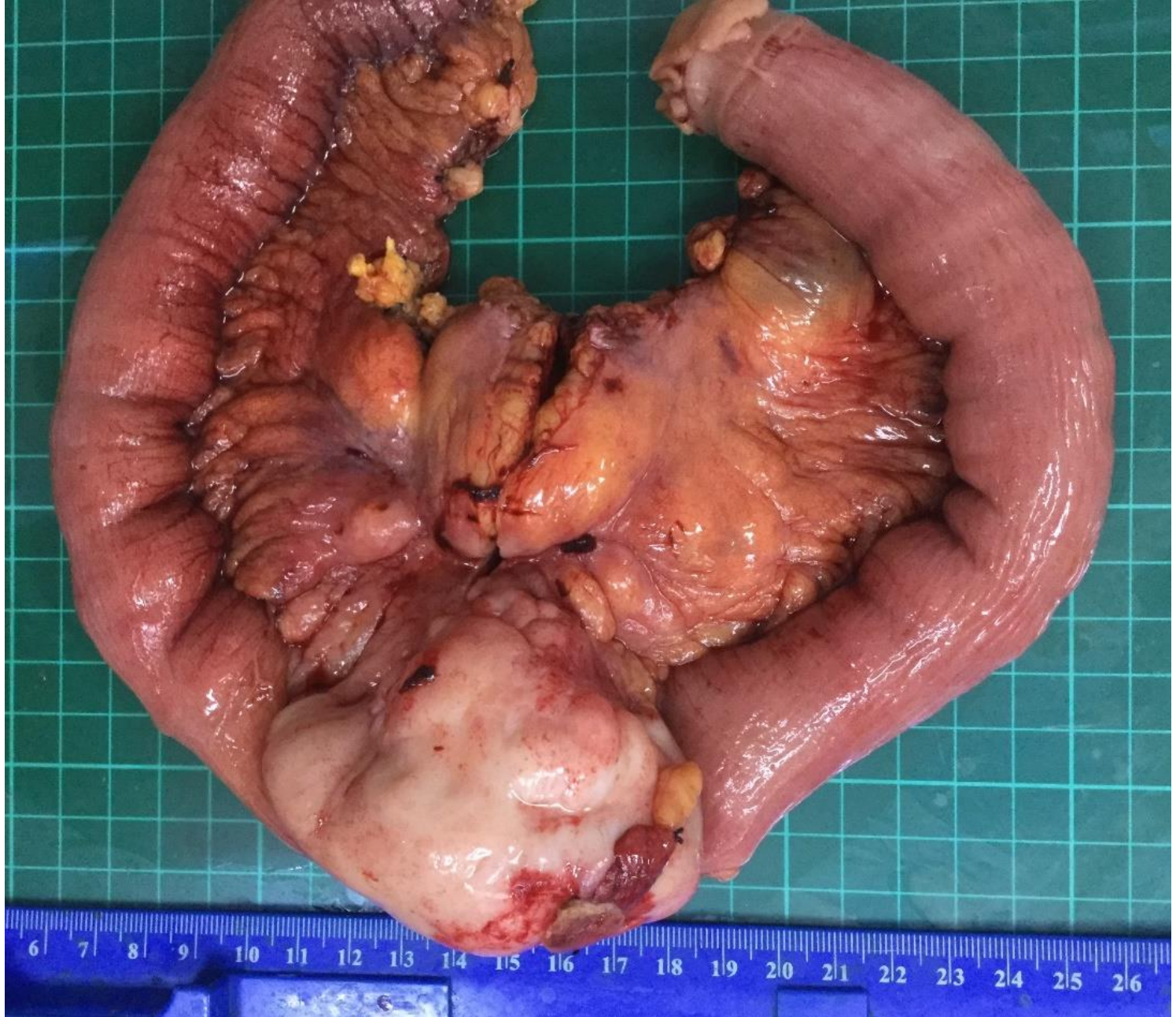
100X



CD20 (100X)



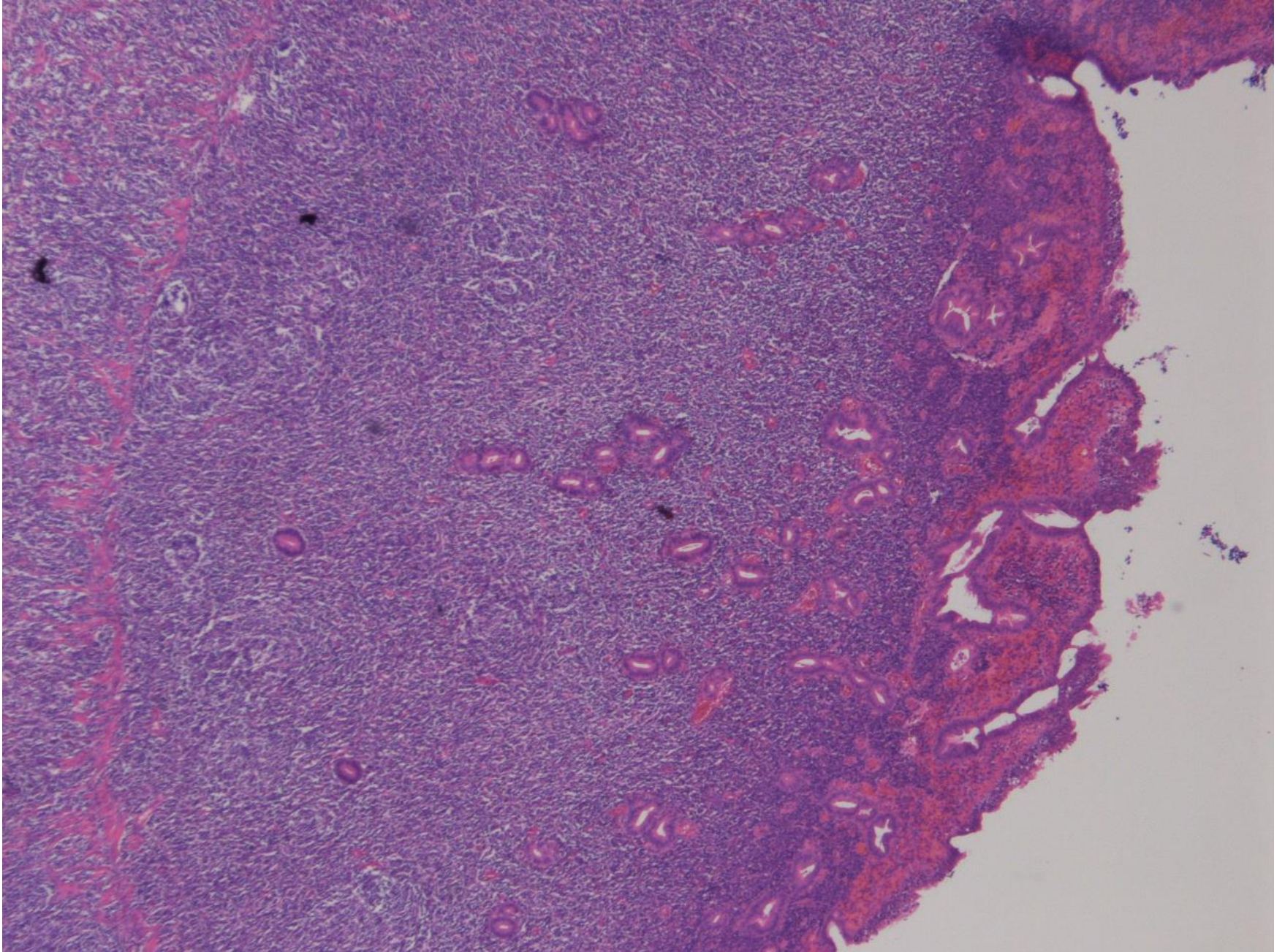
CD3 (100X)



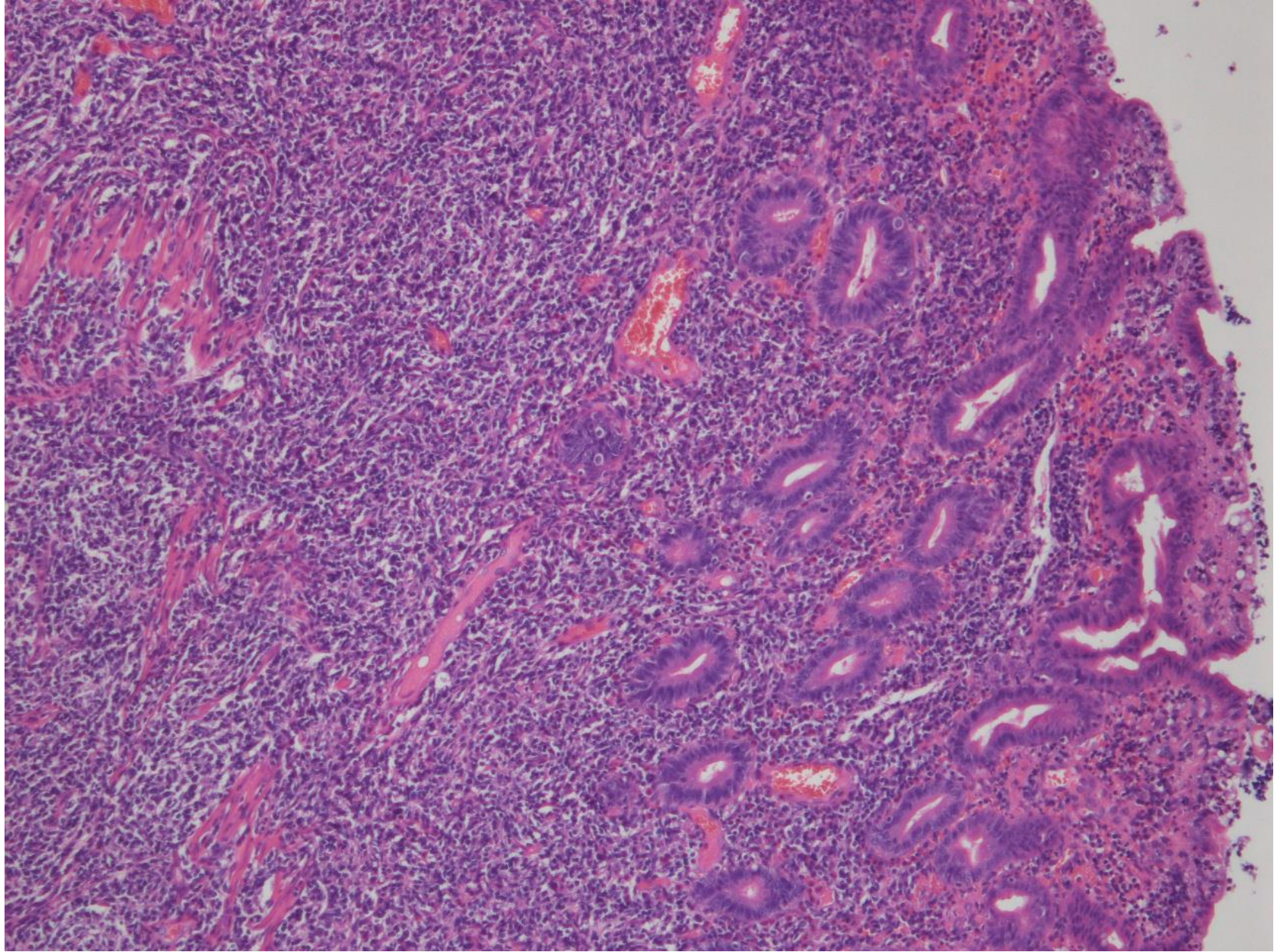
105-07211 jejunum, resection, external view of tumor



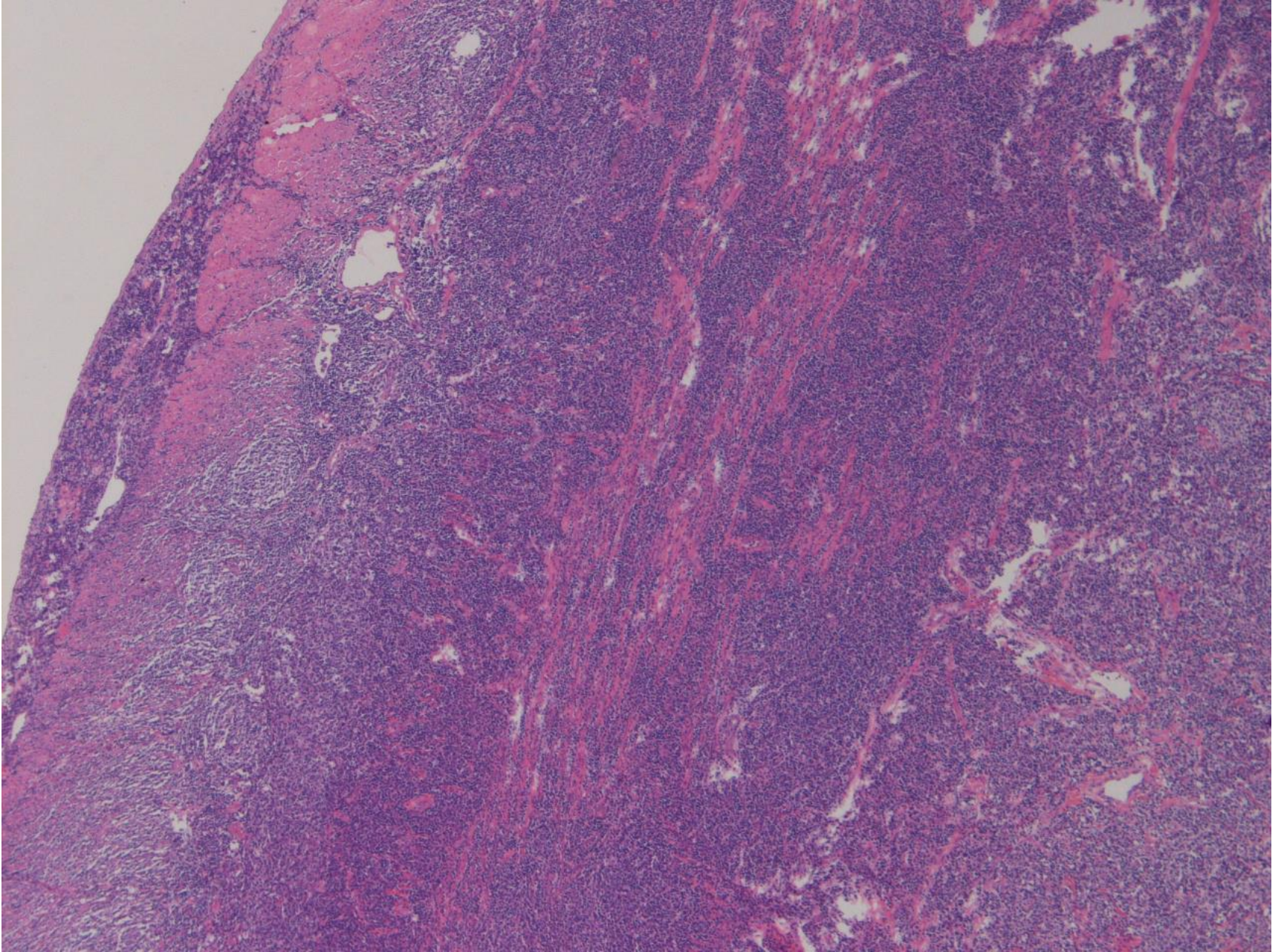
105-07211, jejunum, dissection of tumor



105-07211, jejunum, attenuation of jejunal mucosa (20X)

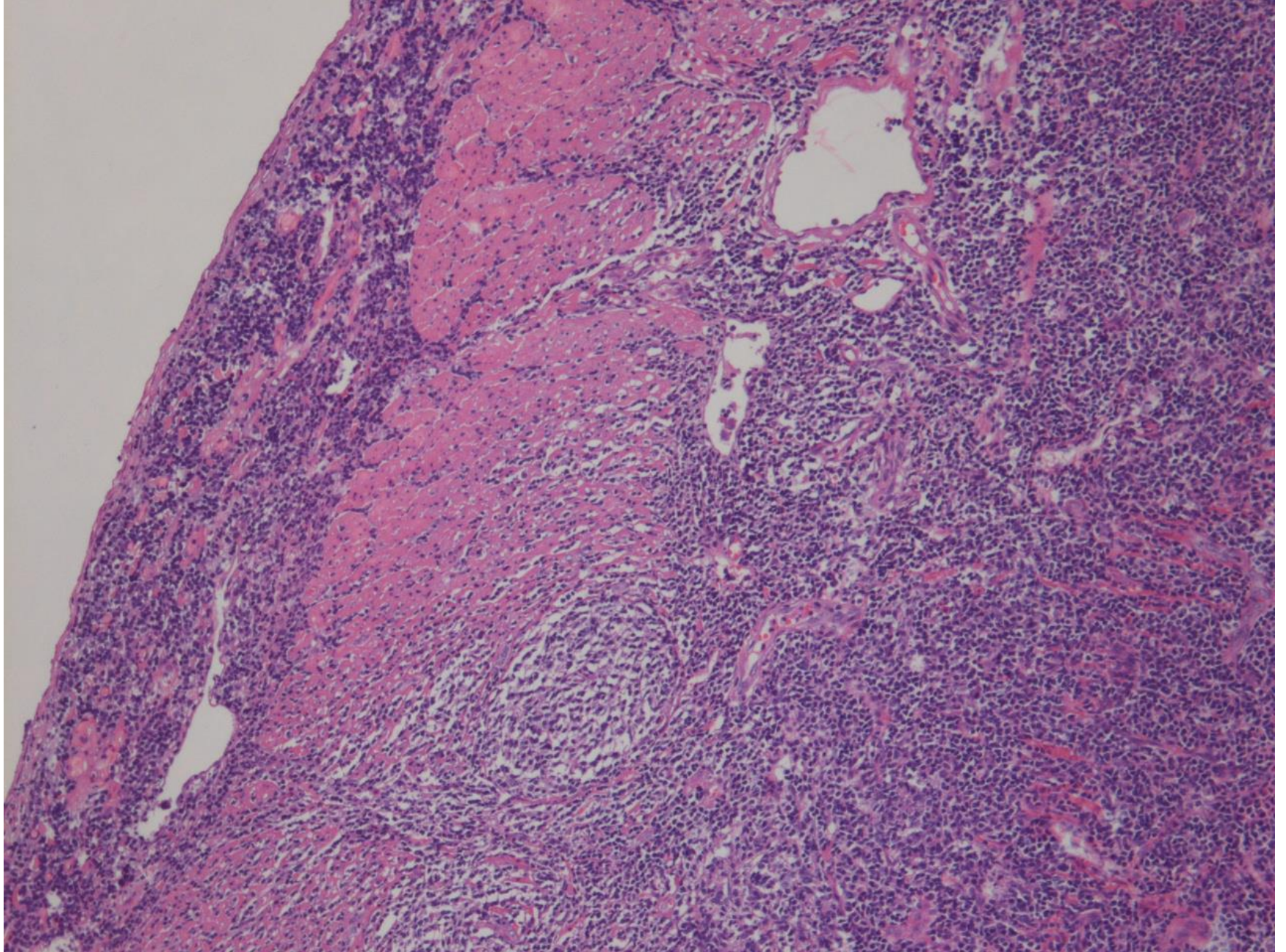


105-07211 jejunum, infiltration of small lymphoid cells in the lamina propria and submucosa (100X)

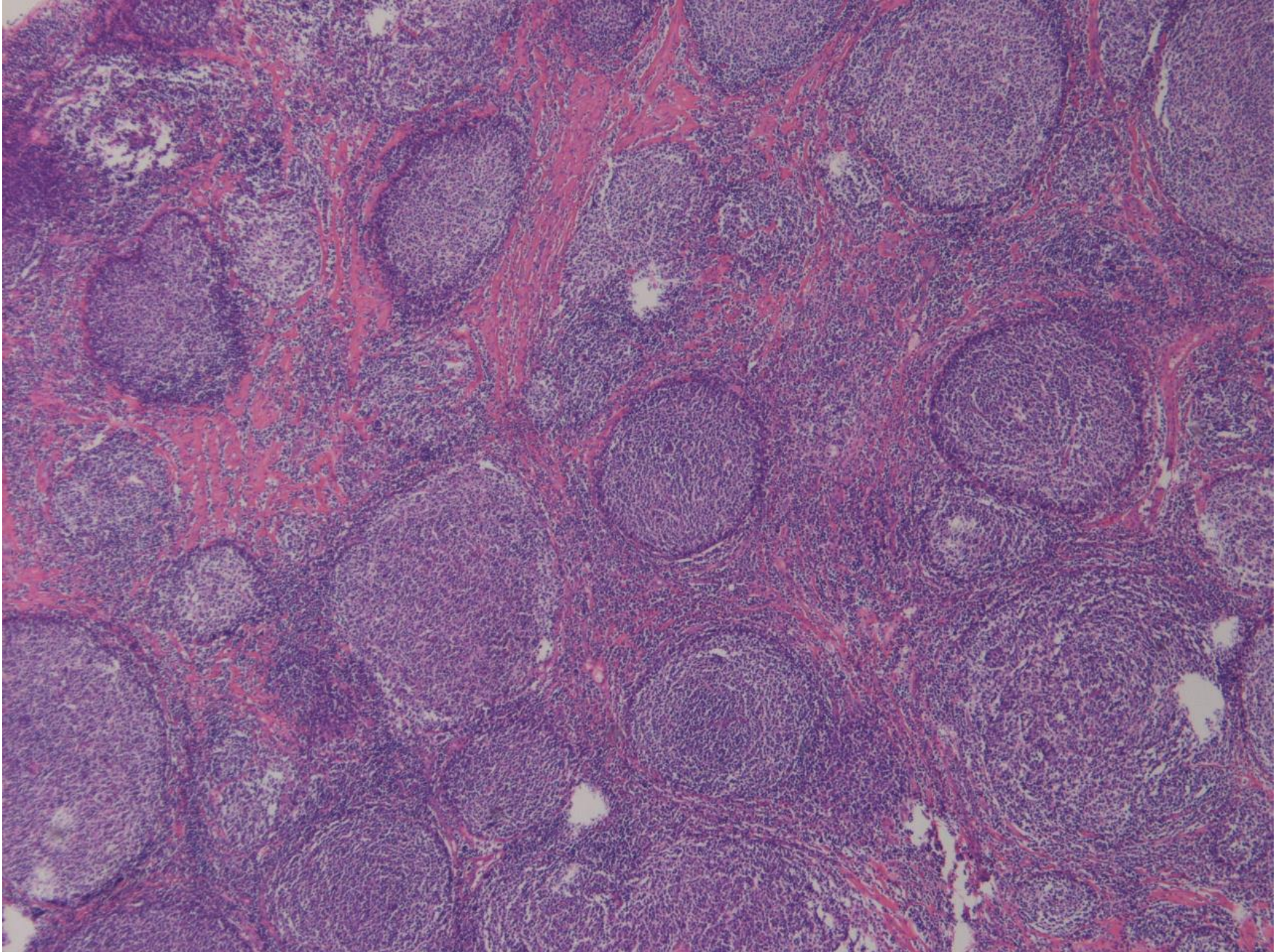


105-07211 jejunum., muscularis propria and subserosal layers (20X)

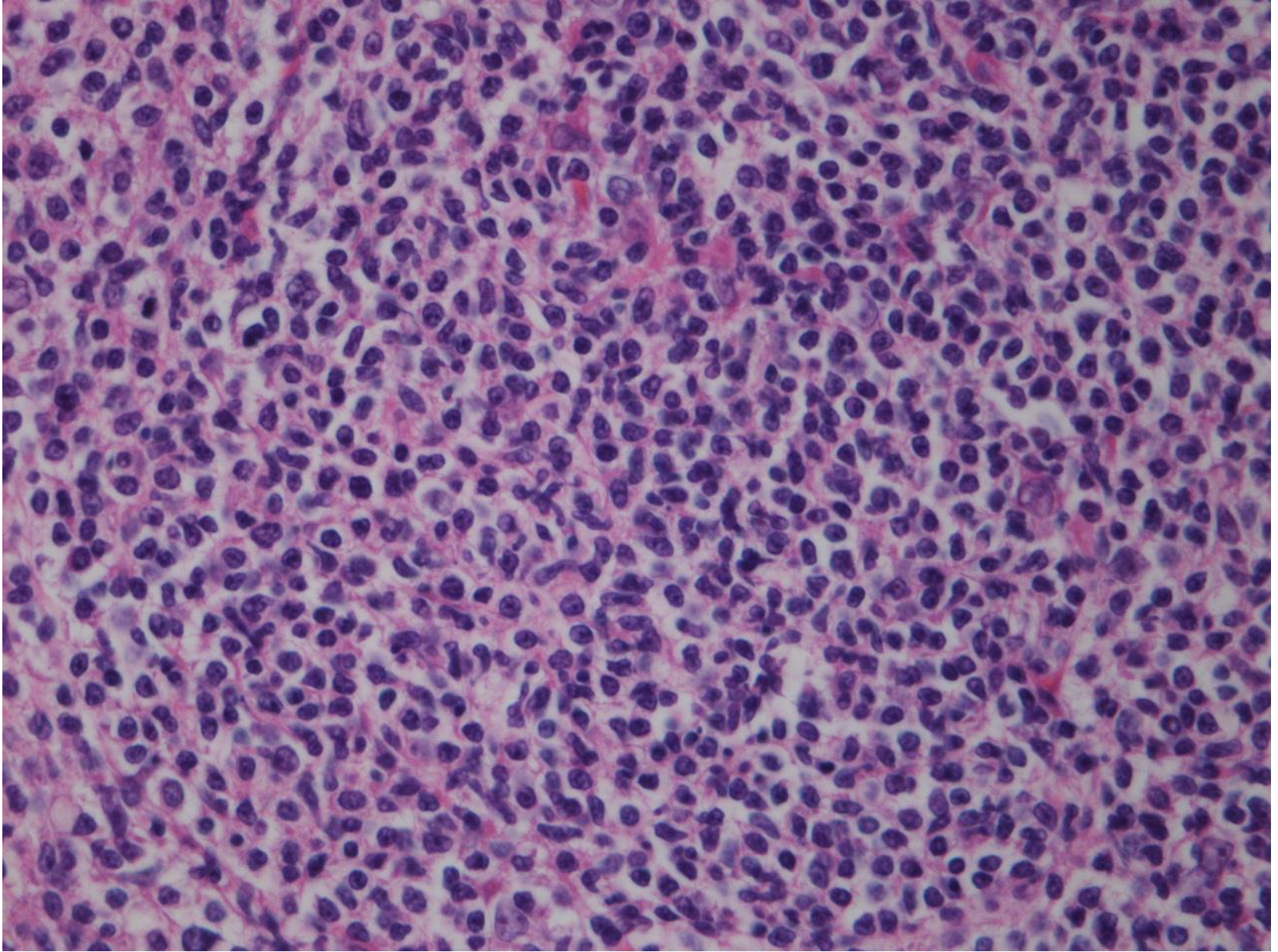




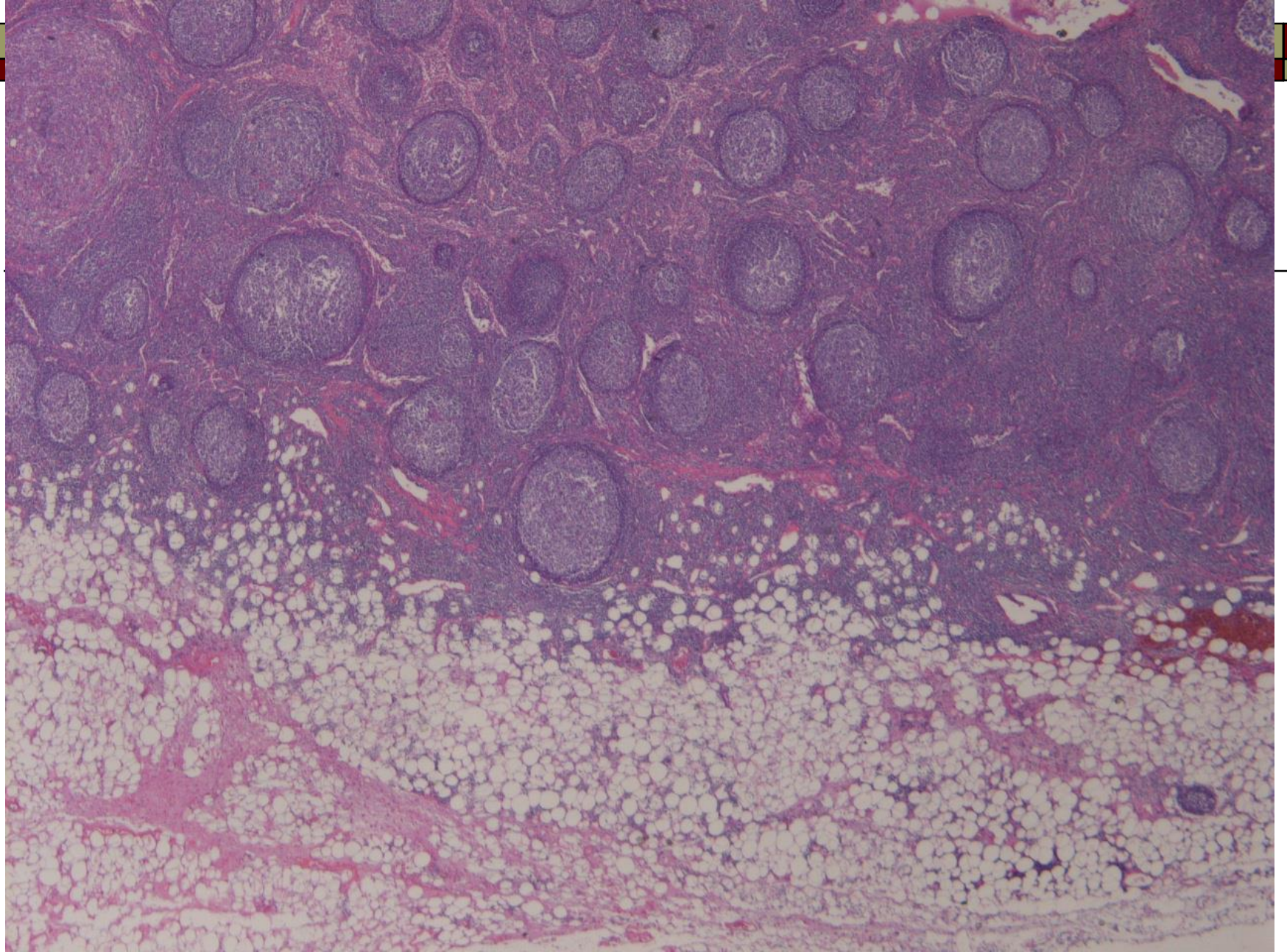
105-07211 jejunum, close up of previous slide, diffuse pattern (40X)



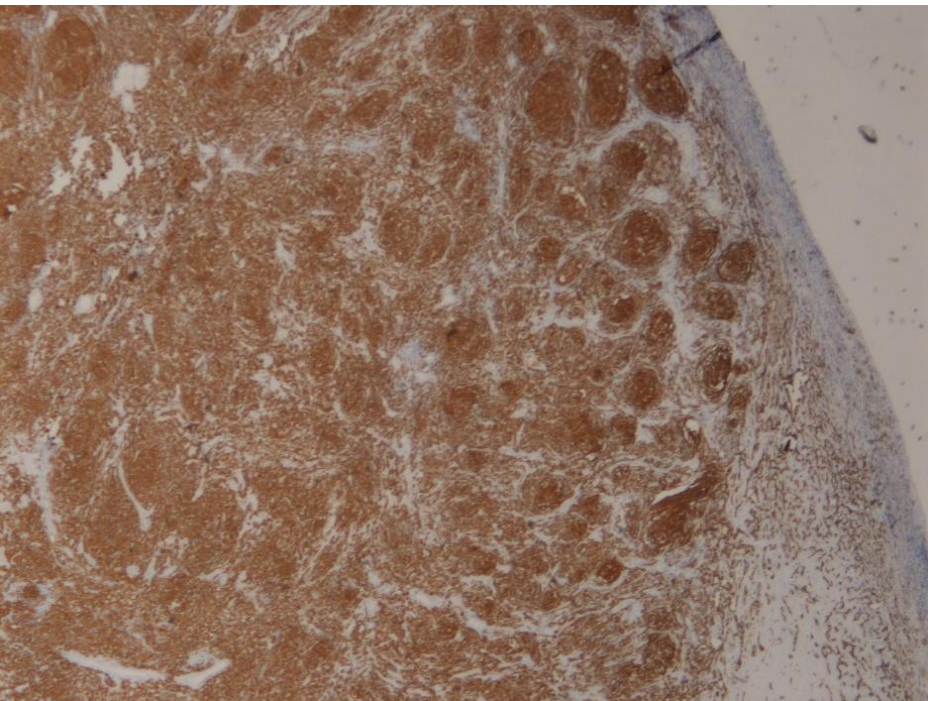
105-07211 jejunum, follicular pattern (100X)



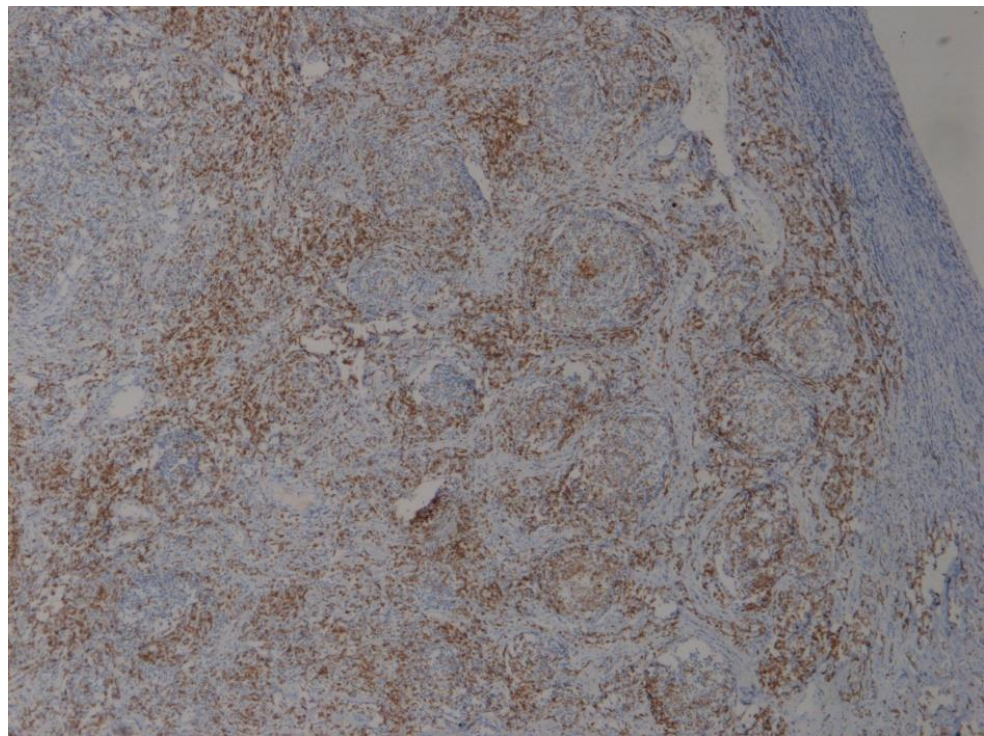
105-07211 jejunum, tumor cells are mainly composed of small cleaved cells (400X)



105-07211 jejunum, mesentery extension of tumor (40X)



CD20



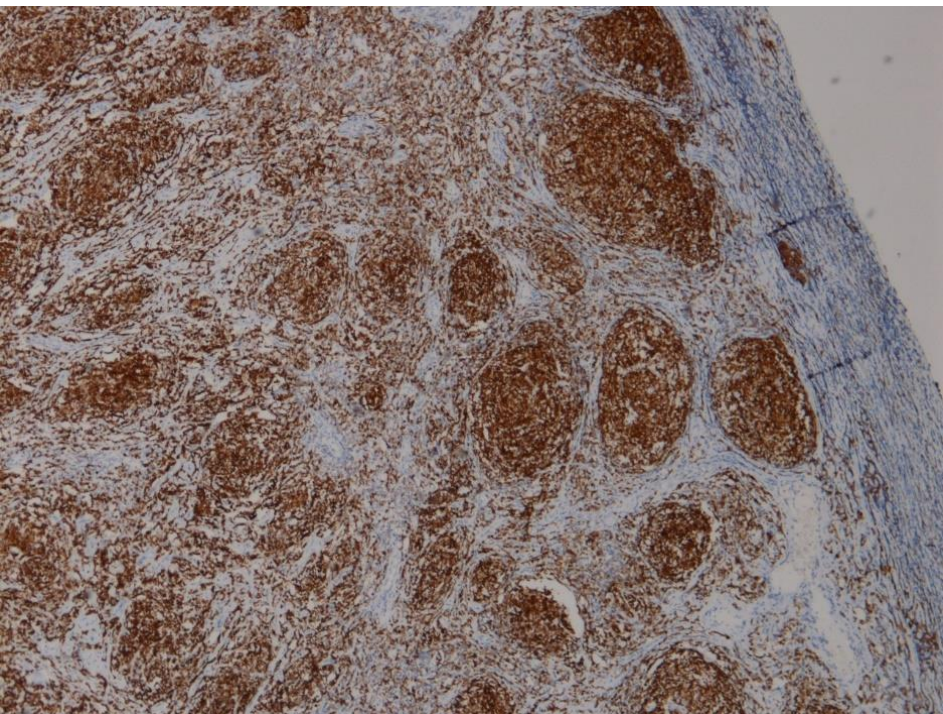
CD3



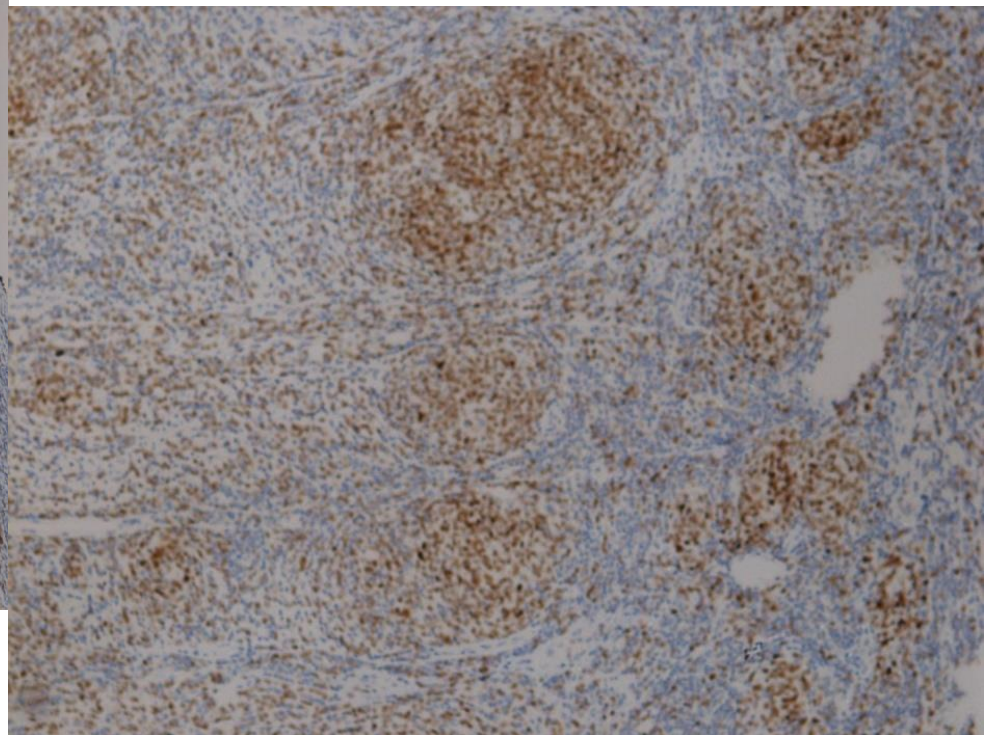
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## Differential diagnosis

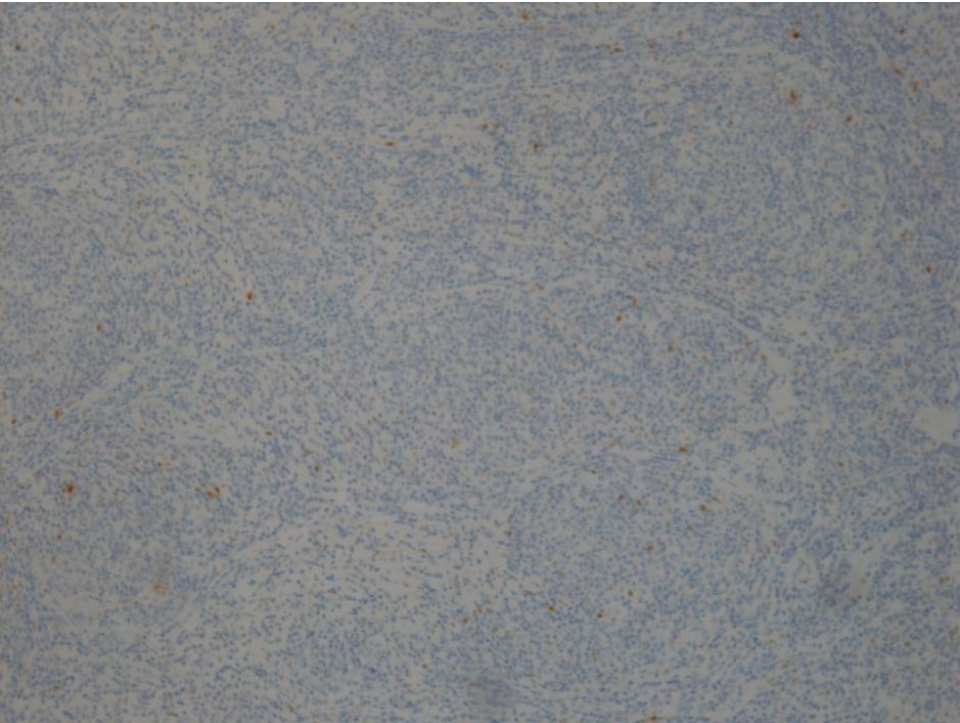
- Reactive lymphoid hyperplasia
- Follicular lymphoma
- MALToma
- Small cell lymphoma
- Mantle cell lymphoma



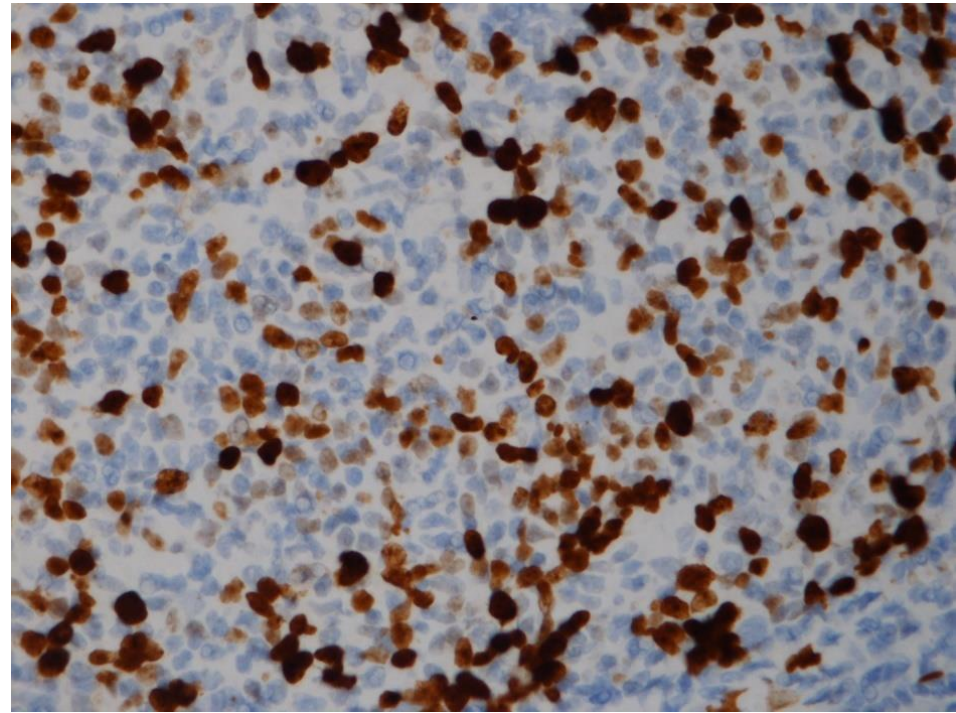
bcl2



bcl6



Cyclin-D1



MIB-1



	BCL-2	BCL-6	CD23	Cyclin-D1
Lymphoid hyperplasia	Mantle zone (+)	-	-	-
Follicular lymphoma	+	+	-	-
MALTooma	-	-	-	-
Small lymphocytic lymphoma	-	-	+	-
Mantle cell lymphoma	+	-	-	+

Immunostaining results: Cyclin-D1 (-), CD23 (-), BCL-2 (+), BCL-6 (+)



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PATHOLOGICAL DIAGNOSIS

**FOLLICULAR LYMPHOMA**

# B-cell lymphoma of the small intestine

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## Epidemiology

- 30-50% of all malignant tumors of small intestine
- The ileum is more commonly affected than the duodenum or jejunum
- The most frequent histologic type among B-cell lymphoma is diffuse large B-cell lymphoma (40-60%)
- Peak incidence: 7<sup>th</sup> decade of life

# B-cell lymphoma of the small intestine

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## Etiology

### ❖ Infection

Campylobacter jejuni: IPSID (immunoproliferative small intestinal disease)

HIV infection: high grade B-cell lymphoma

### ❖ Immunodeficiency states

iatrogenic immunosuppressed allograft recipient: PTLD

IBD with immunomodulatory agents: DLBCL+EBV (+)

common variable immunodeficiency (VCID): DLBCL

### ❖ Celiac disease: enteropathy-associated T-cell lymphoma

# B-cell lymphoma of the small intestine

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## Imaging and endoscopy

- Most small intestinal lymphomas are localized to one anatomical site, multifocal tumors are detected in approximately 8% of cases
- MLP (multiple lymphomatous polyposis): most caused by mantle cell lymphoma

# Follicular lymphoma of GI tract

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## General features

- ❑ 4% of all lymphomas of primary in this site
- ❑ Predominantly found in the 2nd portion of duodenum
- ❑ Middle-aged or older adults, mean age in the 50s
- ❑ Abdominal pain, less often with diarrhea, rare in incidental finding
- ❑ Multiple, small whitish polyps, or granularity, or nodularity of the mucosa, MLP, to large, discrete, deeply invasive mass
- ❑ Tend to present at a lower stage (grade 1)

# Follicular lymphoma of GI tract

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## Pathologic features

- Immunophenotype: CD20 (+), CD10(+), bcl2 (+), bcl6 (+), CD5 (-), CD43 (-)
- Two types of cells:
  - centrocytes (cleaved FCC)
  - centroblasts (non-cleaved FCC)
- Two type patterns: follicular and diffuse



# Follicular lymphoma of GI tract

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## Outcome

- Good prognosis and good response to therapy
- Large cell transformation is present in some cases



# Primary Follicular Lymphoma of the Gastrointestinal Tract

A Clinical and Pathologic Study of 26 Cases

Jinru Shia, M.D., Julie Teruya-Feldstein, M.D., Dorothy Pan, M.D.,  
Abhijith Hegde, M.D., David S. Klimstra, M.D., R. S. K. Chaganti, Ph.D.,  
Jing Qin, Ph.D., Carol S. Portlock, M.D., and Daniel A. Filippa, M.D.

- Site of involvement:
  - small bowel (84.6%): duodenum (55%); ileum (33%); jejunum (28%)
  - Large bowel (23.1%)
  
- 16/26 received surgical resection:
  - Transmural involvement: 69%
  - Mucosa and submucosa: 31%
  
- Gr. I: 50%; Gr. 2: 38.5%; Gr. 3: 11.5%
- Predominant follicular pattern: 81%; mixed: 15.4%; diffuse: 3.8%

- Treatment:
  - 4 patients: Observation
  - 1 patient: polypectomy
  - 4 patients: CT after endoscope
  - 1 patient: CT and RT after endoscope
  - 16 patients: Surgery (43.8%), surgery + CT (56.2%)
    - Complete response 15/16 → 5/15 recurred in 27-60 ms
- Outcome:
  - None died of lymphoma with 4-122 ms F/U
  - 14 disease free; 11 alive with disease