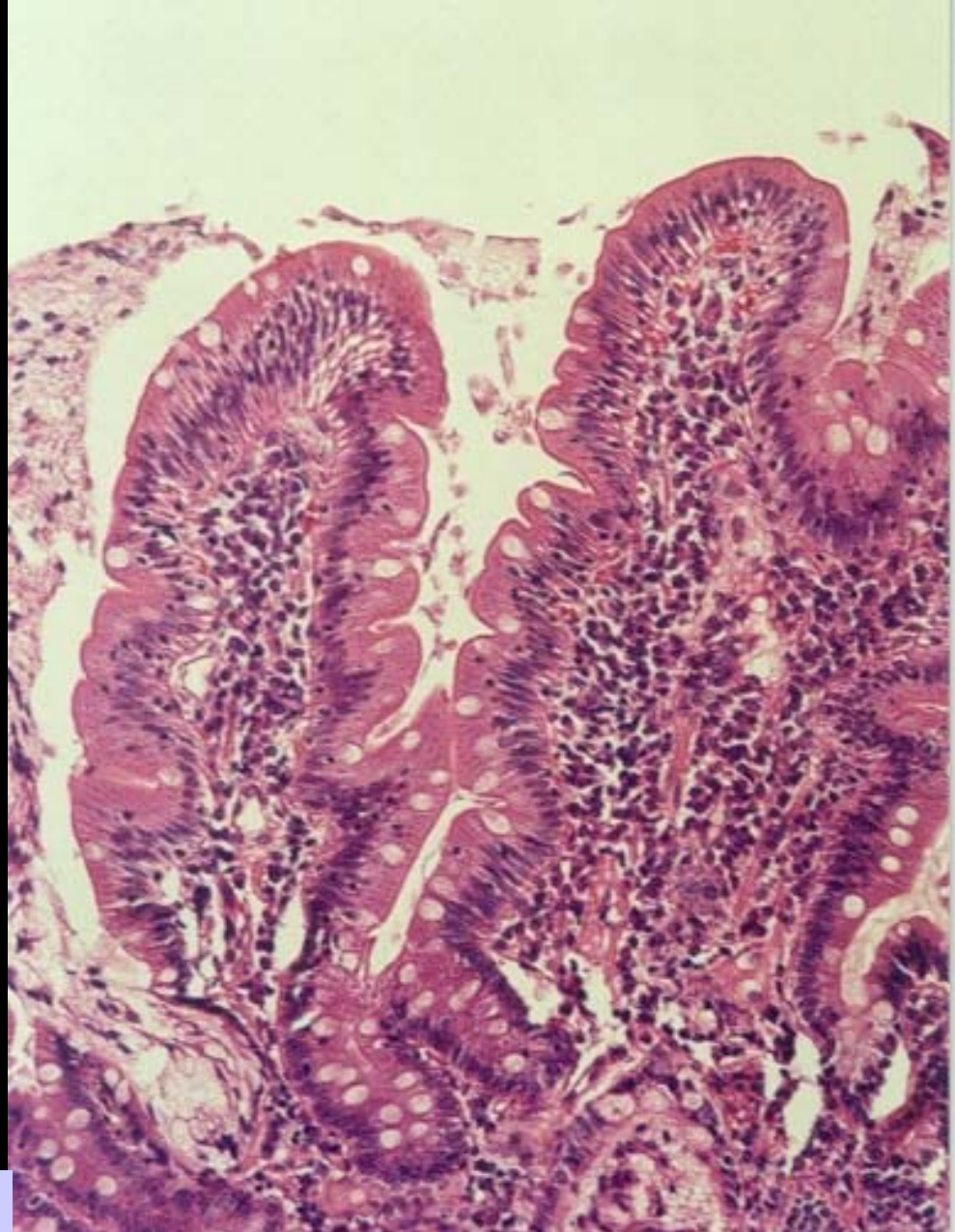
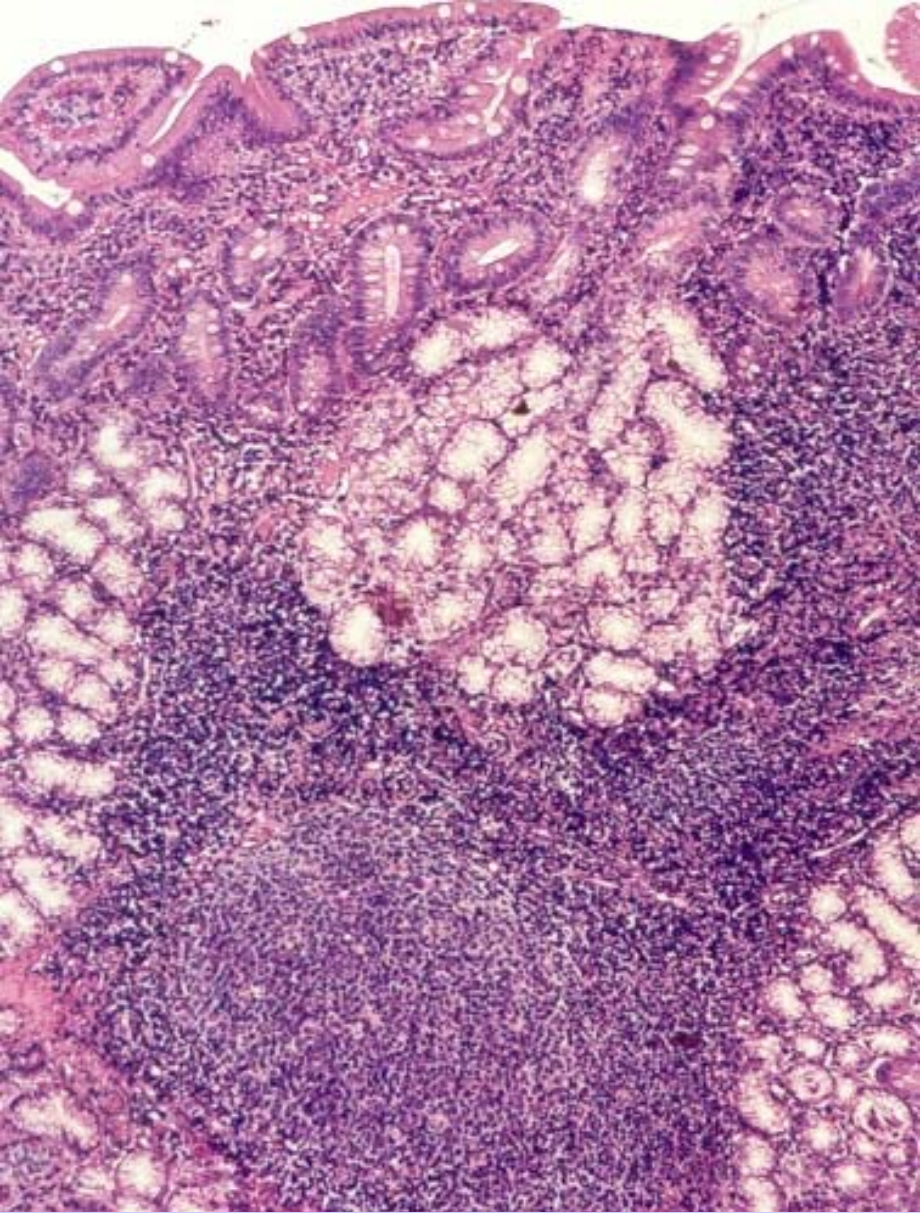


HDF Case 942460

- 22 yo male, complaining of chronic diarrhea.
- Duodenum appears micronodular on endoscopy, suggesting brunnerian hyperplasia, lymphoma or inflammation.
- Biopsy is performed.



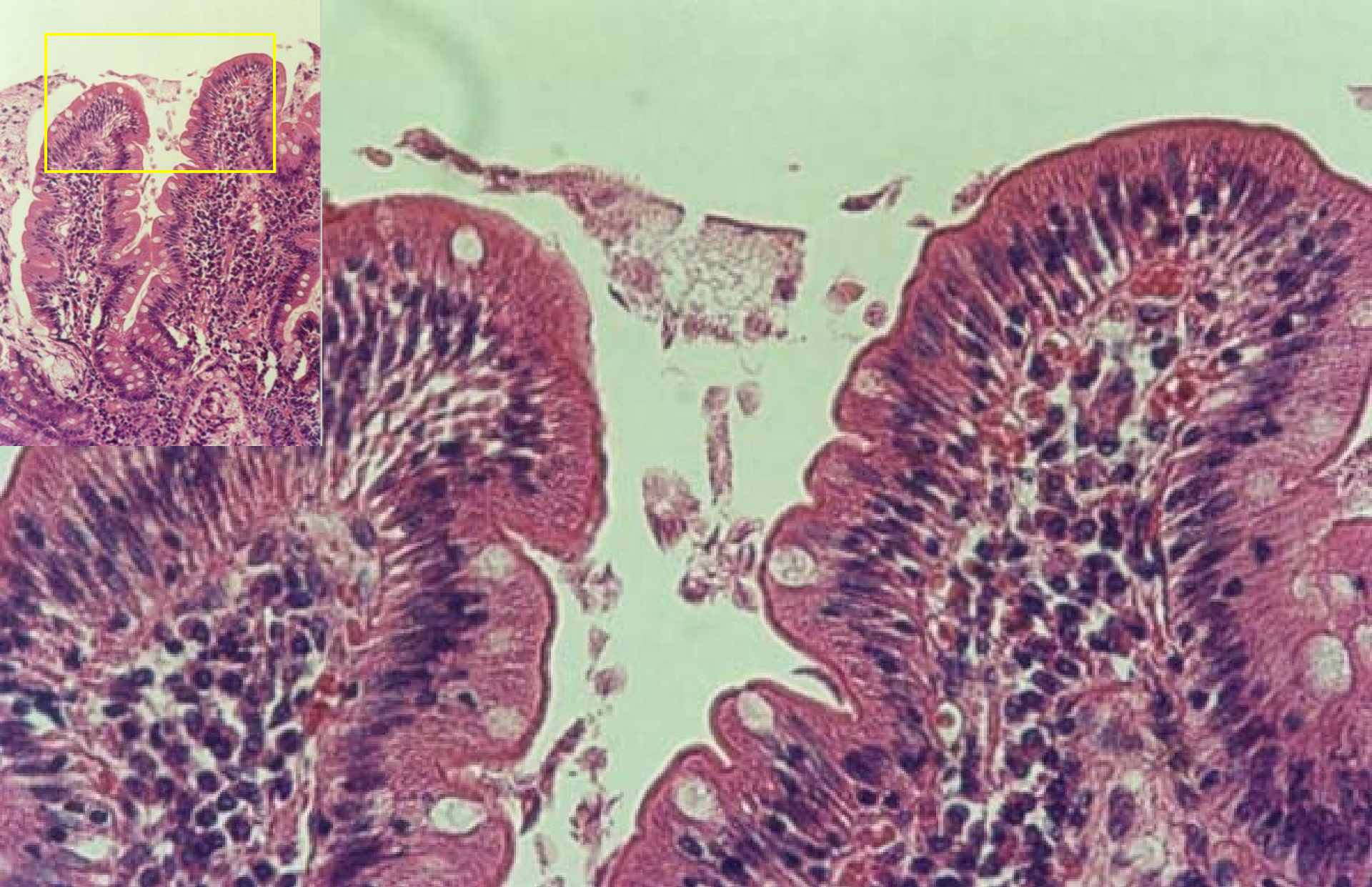
Follicular lymphoid hyperplasia is responsible of the nodularity observed

No changes of the villi

MAIN MENU



QUIT



Mucus clumps and rounded slightly basophilic structures between the villi.

MAIN MENU



QUIT

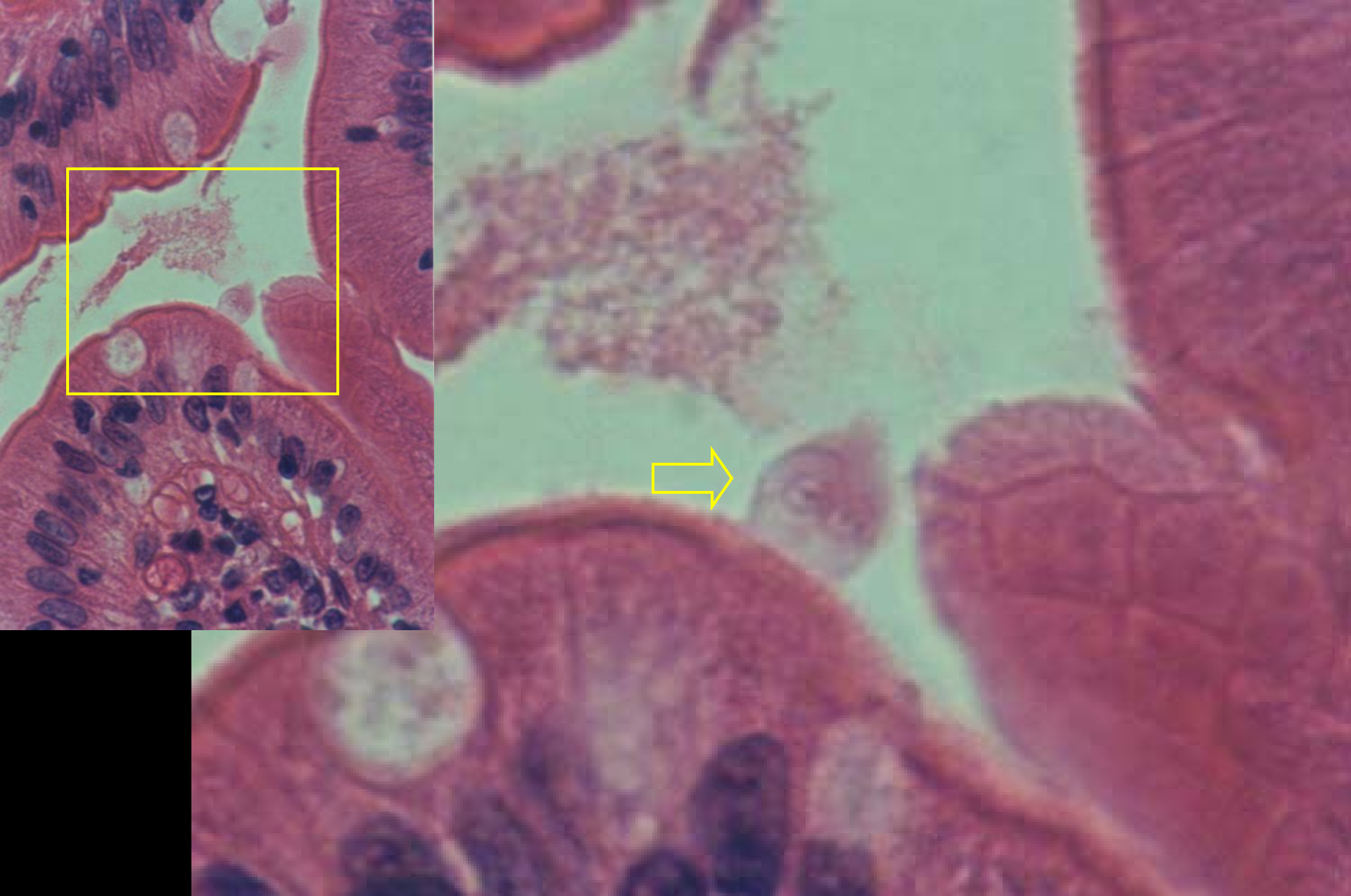


Numerous pear-shaped micro-organisms floating amid the mucus.

MAIN MENU



QUIT



Binucleated (owl-eyed) parasite adherent to the brush border of the enterocytes

MAIN MENU



QUIT

Giardiasis

CLINICAL FEATURES

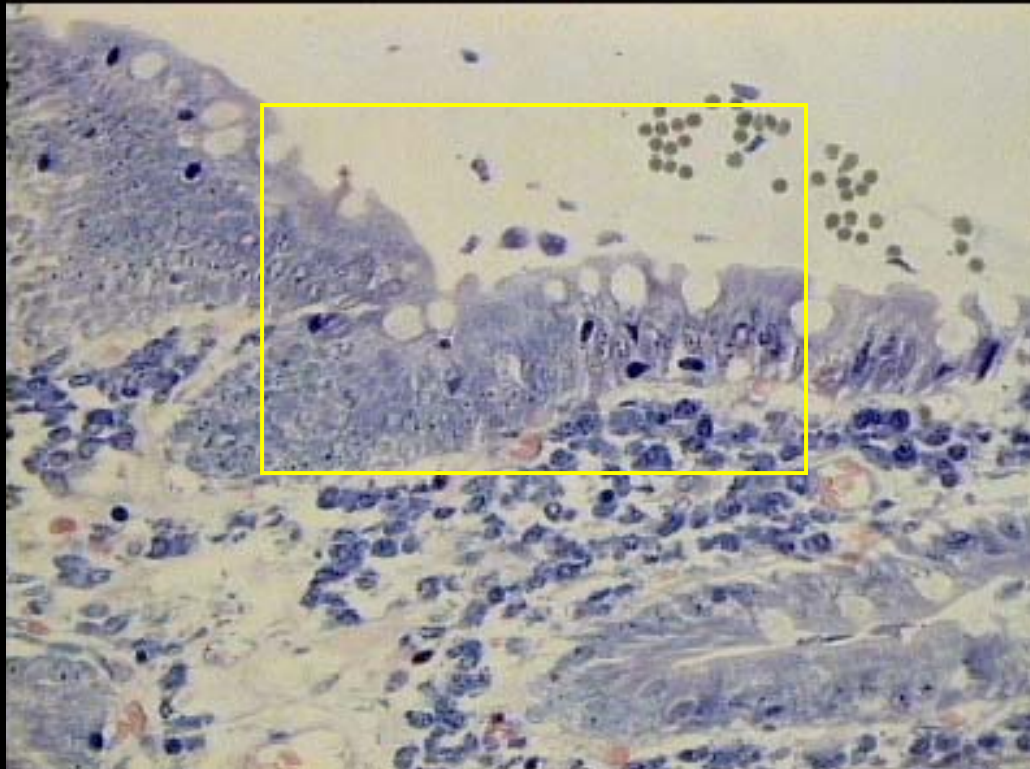
- Symptoms may **range from low grade**, intermittent diarrhea to a rarer presentation with **severe fulminant diarrhea**. Importantly, they may present several weeks to months after the patient returns from an infected area. Severe steatorrhea is not common in sporadic giardiasis unless it complicates an **immunodeficiency state**.
- The mechanism of production of the diarrhea and steatorrhea is not clear and in the immunocompetent patient cannot be accounted for by the degree of structural damage observed. Although invasion of the epithelium has been documented in one study, it is not an overwhelming process. Most of the **organisms reside on the luminal** aspect of surface epithelial cells.

HISTOLOGICAL FEATURES

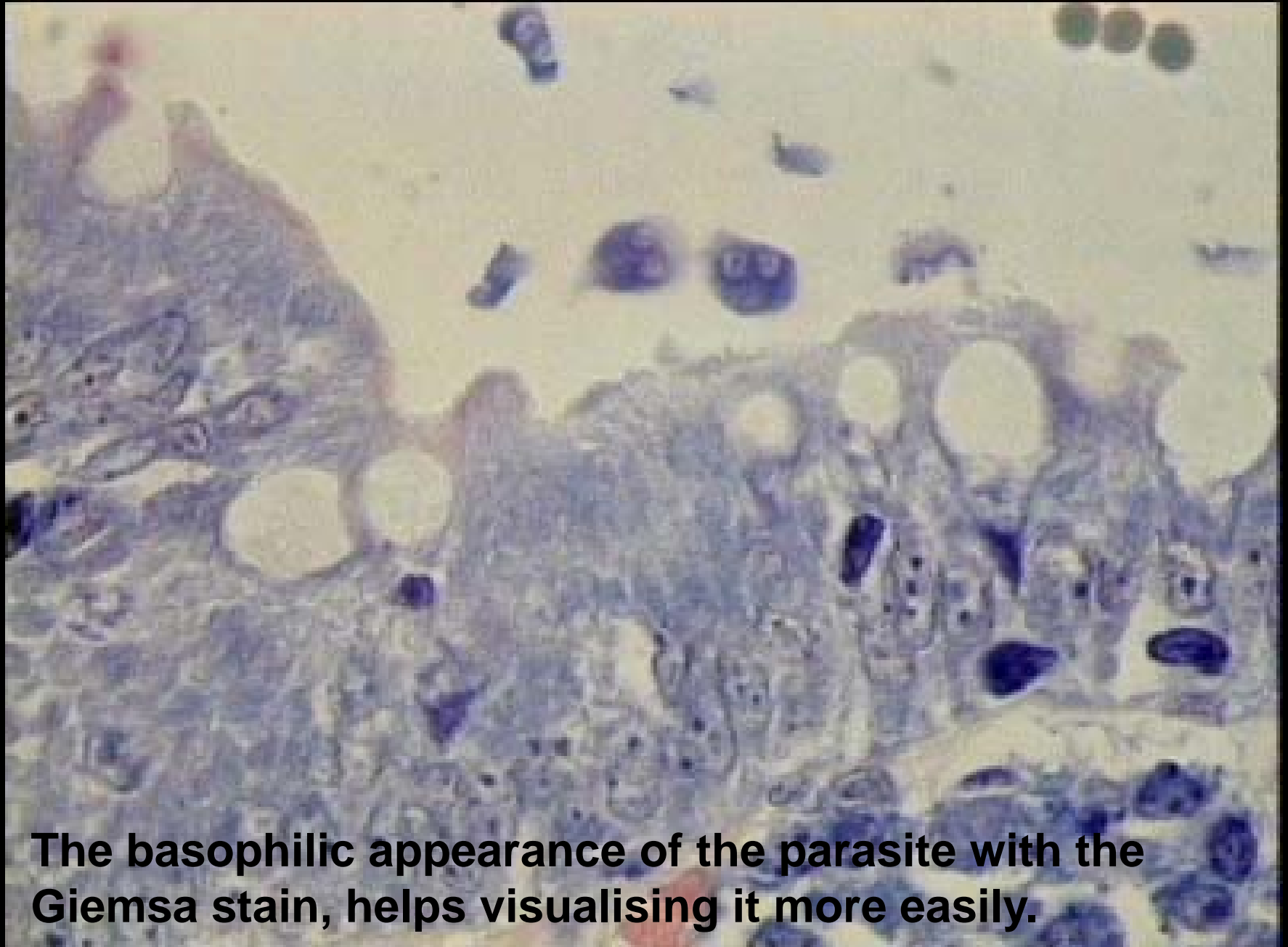
- Many patients with symptomatic giardiasis have normal or, at worst, mildly abnormal villous lesions.
- Severe flat lesions are so rare in the immunocompetent patient, that if they are present, the patient should have serum immunoglobulin tests done even if the numbers of plasma cells does not appear to be reduced. The **best way to screen tissue sections** for the presence of Giardia is to use low or medium power objectives and then to focus down on areas where there are **clumps of mucus or nuclei between** or on the surface of villi. In hematoxylin and eosin stained sections, the organisms appear **slightly basophilic or grayish** in the mucus adherent to villous tips or between villi.



- They have a characteristic **pear-shaped** profile. The prominent paired, **“owl-eyed” central nuclei** and rather indistinct flagella attached to the tapered end are usually visible only in smears.
- When an unexplained mild or moderate lesion of villous architecture is encountered in a patient with diarrhea, the possibility of a Giardia infection is to be considered, and that may not have been evident in the region sampled.



Giemsa stain



The basophilic appearance of the parasite with the Giemsa stain, helps visualising it more easily.

MAIN MENU



QUIT