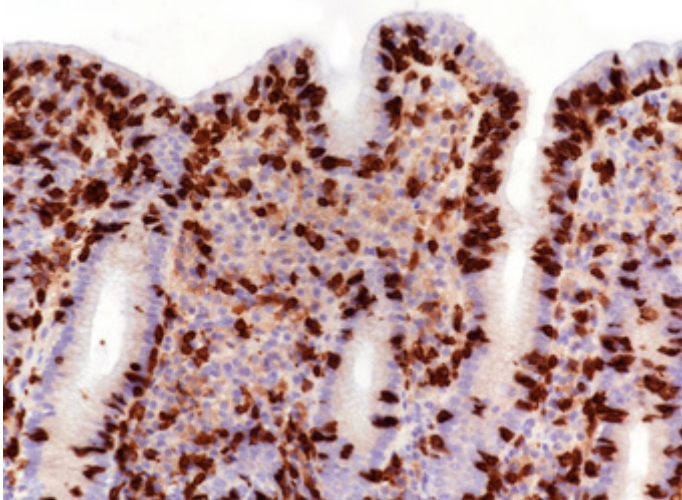
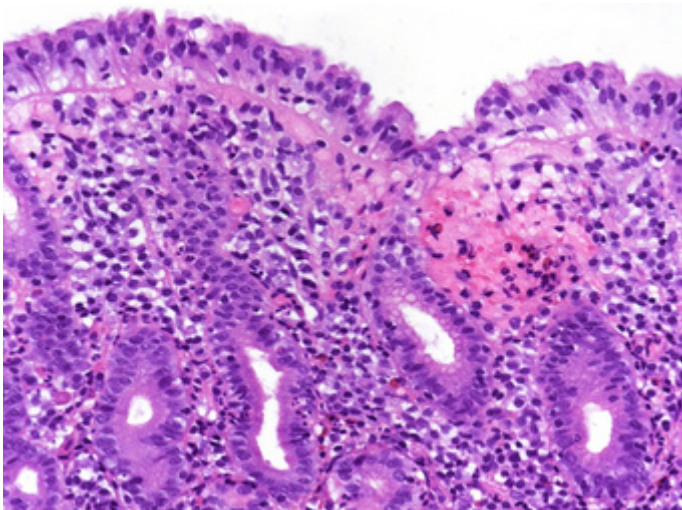
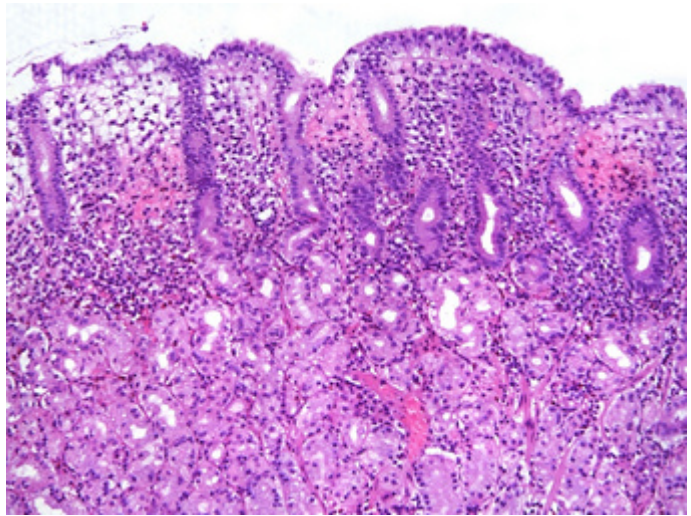
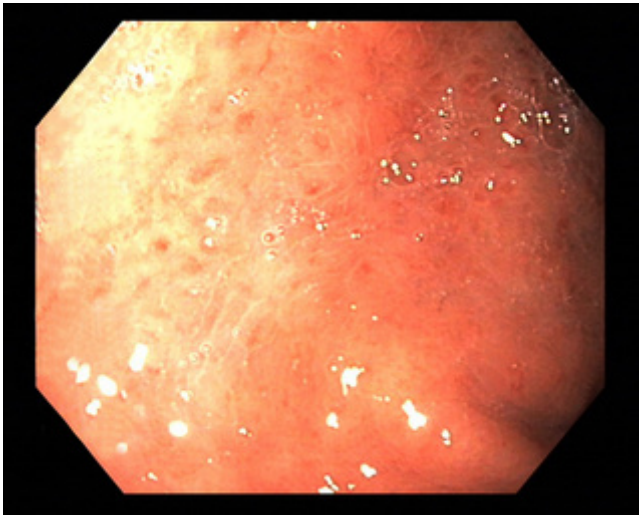
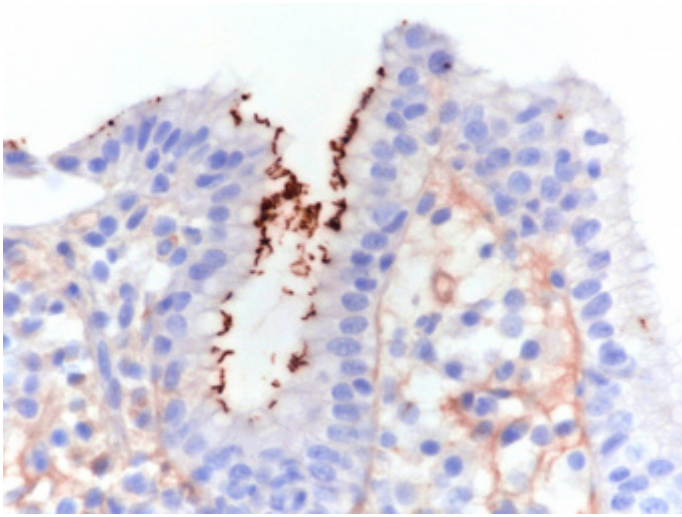


# February 2019

Fundic biopsy of a 34-year-old female with unspecific abdominal pain.

What is your diagnosis?





## Diagnosis:

Lymphocytic gastritis.

## Comment:

Endoscopy revealed multiple irregular slightly elevated lesions with central pinpoint depression and/or erosion within the fundus and corpus mucosa, qualifying for diagnosis of varioliform gastritis [Panel A]. The antrum mucosa was unremarkable. Biopsies were taken systematically from all areas.

Upon histology, the lamina propria showed a prominent superficial band-like lymphoplasmacytic infiltration with varying degree of neutrophils, the latter also present within the foveolar epithelium. The inflammation was particularly prominent in the proximal part of the stomach [Panel B]. The surface epithelium (to a lesser extent also the gastric pits) contained high numbers of small intraepithelial lymphocytes (>25 per 100 epithelial cells). This finding was found to be restricted to the fundus and corpus mucosa [Panel C].

Immunolabeling with CD3 verified that the IELs are T-cells [Panel D]. The *Helicobacter* immunostain highlights a large number of curved bacteria on the mucosal surface and within the gastric pits [Panel E]. Biopsy samples from the duodenum revealed no significant alteration, and the IEL count was normal (not shown).

Lymphocytic gastritis is rare; the estimated prevalence is around 1.63% to 4.5% in the group of adults with chronic gastritis. It is most commonly associated with *Helicobacter* infection and celiac disease, but it may also be seen in patients with HIV infection, common variable immunodeficiency syndrome (CVID), Crohn's disease, lymphocytic enterocolitis, and neoplastic disease (lymphomas, carcinomas). Medication induced cases have also been described (NSAIDs, olmesartan, ticlopidin). In approximately 20% of patients the etiology remains unknown.

The varioliform gastritis pattern, also known as gastritis en nappes, is not present in all patients, and endoscopy may show more or less unspecific findings or may even be normal. Two histological patterns of inflammation have been described: a fundus/corpus-dominant pattern, which is mainly seen in patients with *Helicobacter* infection, and an antrum-dominant pattern, which is mainly encountered in patients with celiac disease, although both patterns are by no means specific. In cases with *Helicobacter* infection the number of pathogens may be very low, requiring additional stains, in particular immunohistochemistry. Healing of lymphocytic gastritis by eradication therapy has been described also in patients judged to be negative for the infection, prompting search for additional pathogens. Recently, the Graz group identified *Propionibacterium acnes* overabundance as a possible causative agent for the disease.

## For further reading:

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