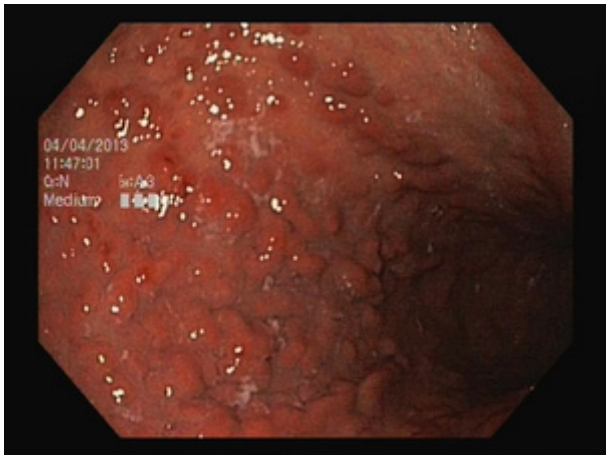
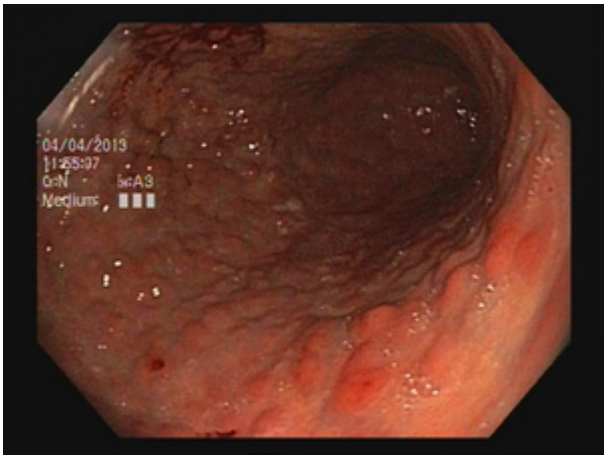
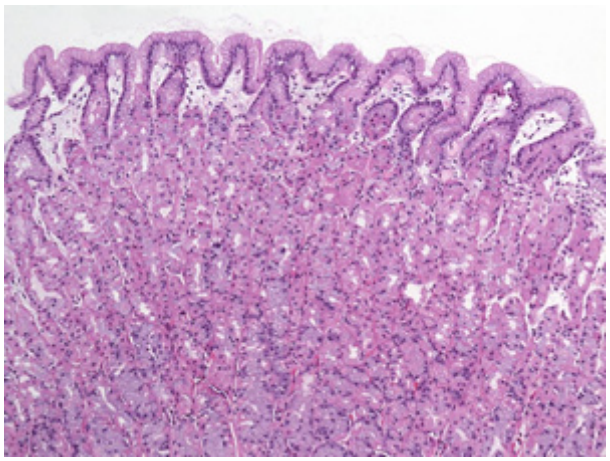
June 2013

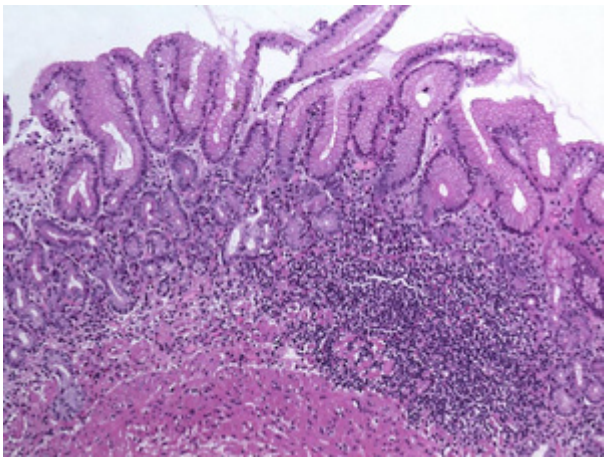
Multiple polypoid lesions in the proximal stomach (body and fundus) of a 67-year-old male.

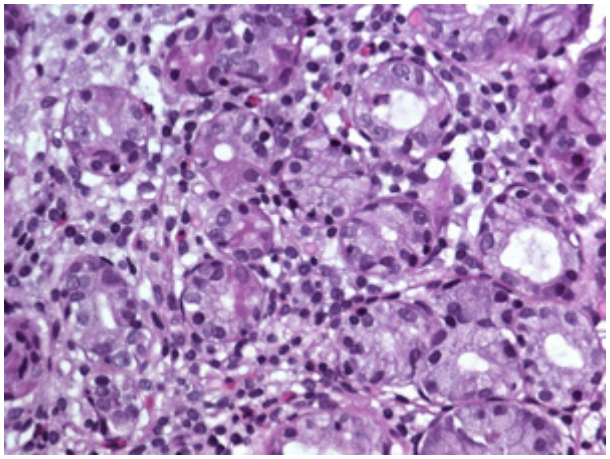
What is your diagnosis?

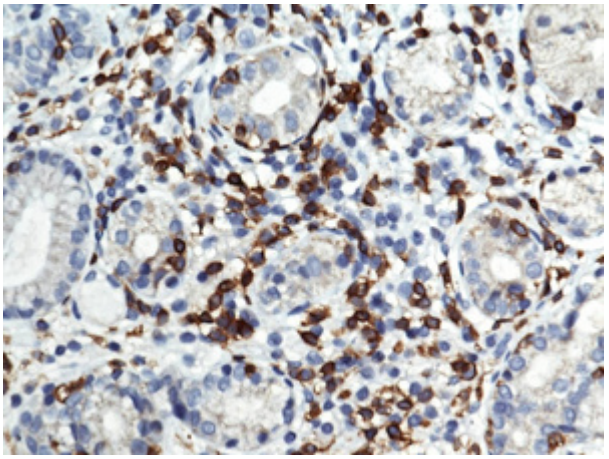


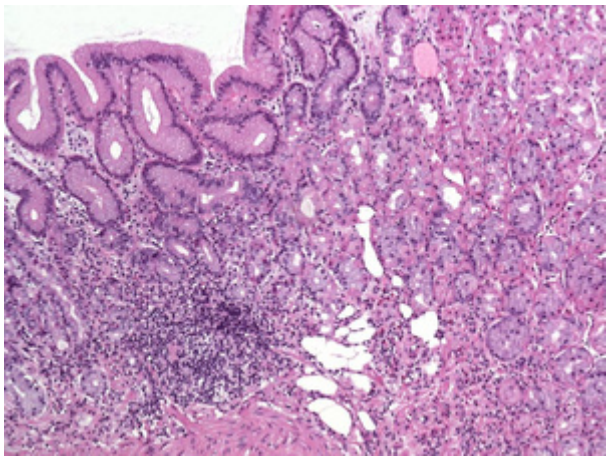


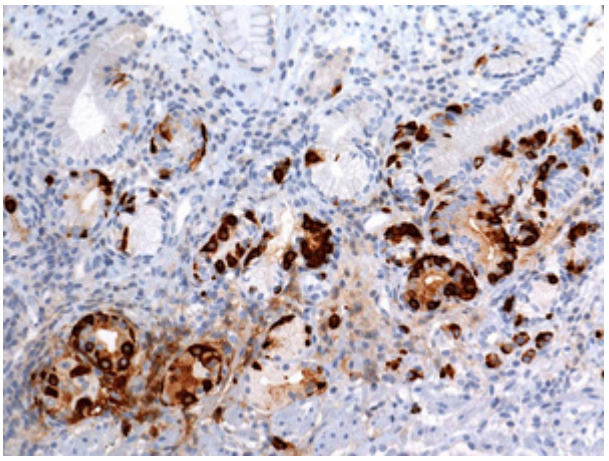












Diagnosis

Oxyntic mucosa pseudopolyps in atrophic autoimmune gastritis.

Comment

Biopsies obtained from the polypoid lesions demonstrate preserved oxyntic mucosa without inflammation (Panel C). Biopsies obtained from the surrounding nonpolypoid mucosa show atrophic gastritis with dense lymphoplasmacytic infiltration, loss of parietal cells, and pseudopyloric metaplasia (Panel D). On high power, focal gland destruction by CD3 positive T cells is seen (Panels E and F). Please note the presence of T cells within the cytoplasm of glandular cells, particular parietal cells (emperipolesis). The border between the inflamed atrophic mucosa (left side) and the normal polypoid mucosa (right side) is shown in Panel G. There is a small focus of pseudolipomatosis in this image, a common finding in corpus biopsies from patients with autoimmune gastritis with severe atrophy. Immunhistochemistry for Chromogranin A reveals diffuse enterochromaffinlike (ECL) cell hyperplasia in the atrophic areas (Panel H).

As summarized by Park et al. (2003) autoimmune gastritis is an inflammatory process that typically involves the fundic and corpus mucosa in a diffuse manner. It is often associated with autoantibodies to parietal cells and/or intrinsic factor. Histologically, late stages of the disease are characterized by complete atrophy of the corpus mucosa with replacement of the specialized oxyntic glands by pseudopyloric and intestinal metaplasia, the presence of chronic inflammation, and ECL cell hyperplasia. The antral mucosa tends to be relatively spared, showing no significant atrophy, although there may be associated mild chronic gastritis. The diagnosis of early, active stages of disease may be challenging because the mucosa is not completely atrophic.

Upon endoscopy, islands of relatively preserved oxyntic mucosa in a background of gastric atrophy may appear as polypoid or nodular lesions. These oxyntic mucosa pseudopolyps have first been described by Dirschmid in 1989. Pathologists need to be aware of the fact that the diagnosis of autoimmune gastritis may be missed if tissue is sampled only from the polypoid lesions and not from the surrounding nonpolypoid mucosa. The discrepancy between endoscopic (polypoid lesions) and histological (normal oxyntic mucosa) findings may in fact render an important diagnostic clue and should prompt the pathologist to ask for additional biopsies from the surrounding mucosa which will ultimately lead to accurate diagnosis.

For further reading

- Dirschmid K, Sprenger R, Schobel B, Mathis G, Wohlgenannt D. [Atrophy of the corpus mucosa of the stomach simulating polyposis]. Z Gastroenterol. 1989;27:633-7.
- Park JY, Cornish TC, Lam-Himlin D, Krasinskas AM, Abraham SC, Metz DC, Furth EE. Oxyntic mucosa pseudopolyps: a presentation of atrophic autoimmune gastritis. Am J Surg Pathol. 2003;27:236-41.
- Shi C, Montgomery E. Gastric lesions in patients with autoimmune metaplastic atrophic gastritis (AMAG) in a tertiary care setting. Am J Surg Pathol. 2010;34:1591-8.

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