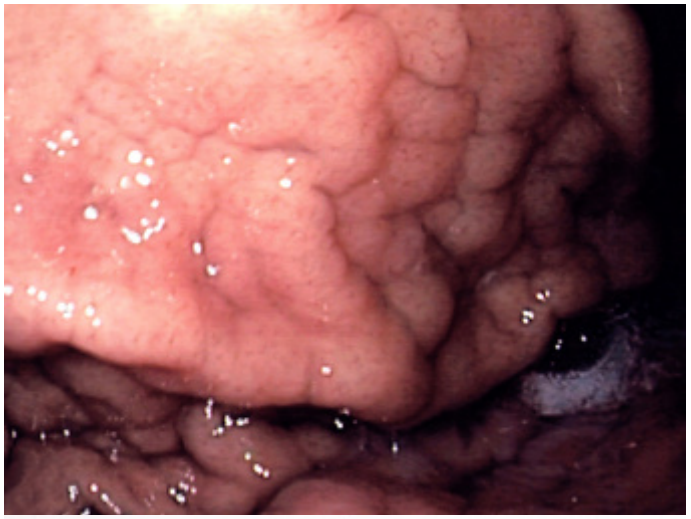
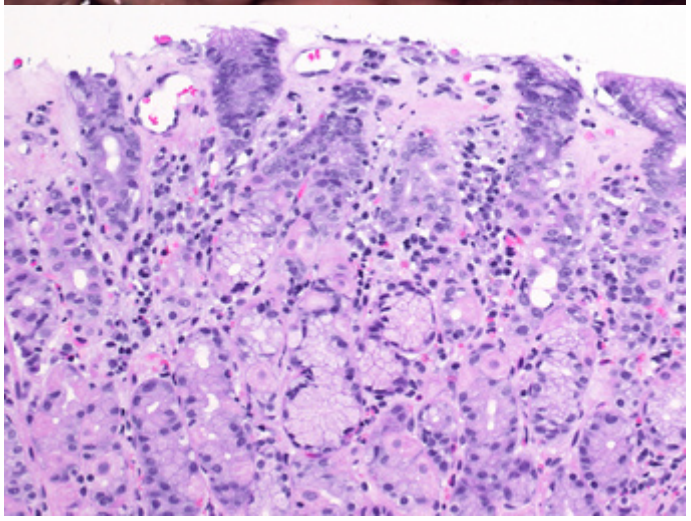
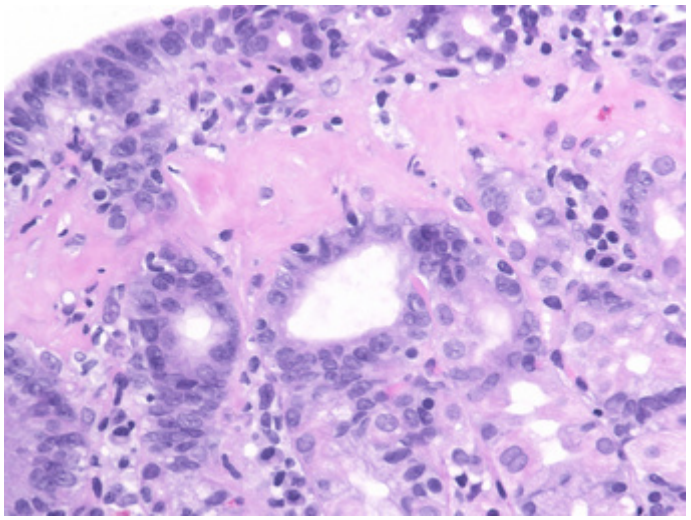
September 2018

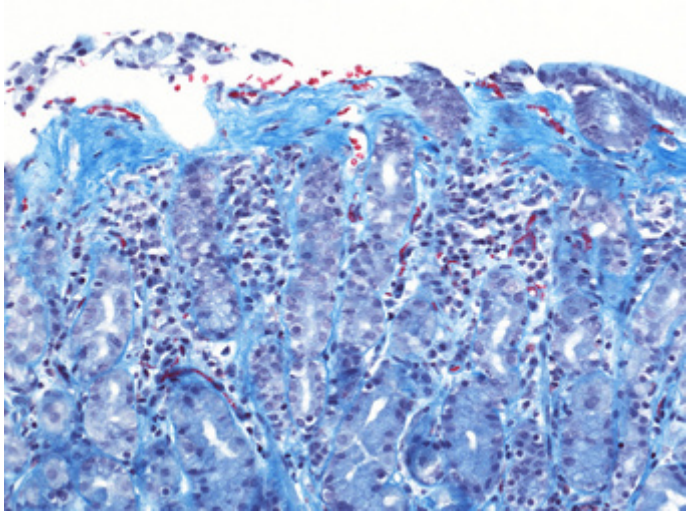
Gastric biopsy of a 14-year-old female with recurrent abdominal discomfort and diarrhoea.

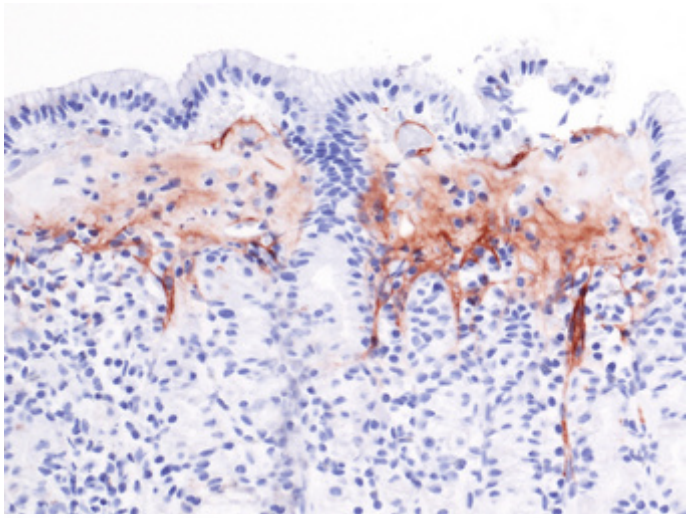
What is your diagnosis?

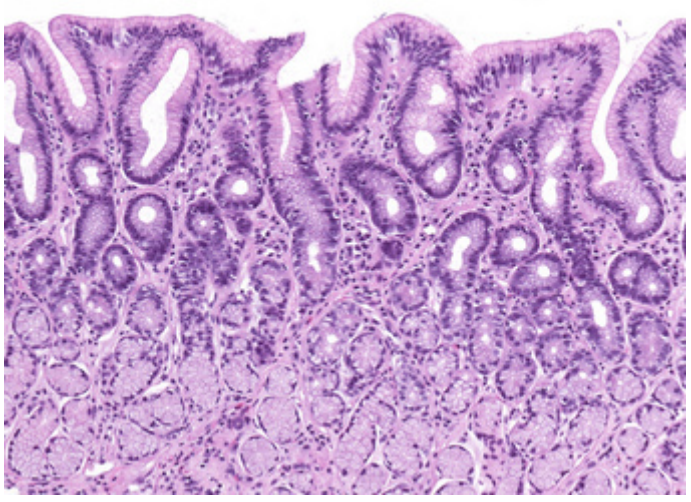












Diagnosis:

Collagenous gastritis.

Comment:

Upon endoscopy, the mucosa of the corpus and fundus appeared oedematous with thickened folds [Panel A], while the other areas of the upper gastrointestinal tract were normal. Histology showed a mild chronic inactive inflammatory infiltrate. In the oxyntic mucosa, the subepithelial collagen band was markedly thickened (up to more than 100µ) [Panels B and C], which was highlighted by trichrome staining [Panel D]. Tenascin immunostaining was positive in these areas [Panel E]. No thickening of the collagen band was observed in the antrum [Panel F]. Staining for Helicobacter pylori was negative.

Collagenous gastritis is a rare disease that may occur in all age groups. Diagnosis is usually straightforward, but ancillary stains highlighting collagen deposition, such as trichrome, Goldner or Sirius red may be of help. Immunostaining using an antibody directed against the glycoprotein Tenascin may likewise be used; its significance within the upper gastrointestinal tract, however, still needs to be defined (compare ENGIP teaching case December 2012). Differential diagnosis mainly includes amyloidosis, which has to be ruled out by appropriate stains.

Collagenous gastritis has been reported both in children and in adults. In children, presenting symptoms may be epigastric and/or abdominal pain or chronic anaemia due to gastrointestinal bleeding, whereas adults present most commonly with chronic watery diarrhoea due to the simultaneous occurrence of collagenous colitis.

Upon endoscopy, the gastric mucosa may be erythematous or display thickened folds and/or nodularity, particularly in children. The deposition of collagen may be corpus predominant as in the presented case, or may affect all areas of the stomach in a comparable fashion. Surface epithelial sloughing is seen, at least focally, in the majority of cases. Chronic and also active (neutrophilic) inflammation is present in about every second case, but Helicobacter is usually absent.

Histological changes tend to persist, requiring long-term follow-up and monitoring of the disease. The role of immunosuppressive therapy, which has been reported to be successful in some cases, needs to be defined, particularly in children. Randomized clinical trials are warranted to establish therapeutic strategies.

For further reading:

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