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Review Article

A CASE REPORT OF AN UNUSUAL CASE OF COLLAGENOUS GASTRITIS WITH SYSTEMIC LUPUS ERYTHROMATOSIS

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ABSTRACT

Collagenous gastritis is a rare histopathologic disease, characterized by thickened subepithelial collagen bands in the gastric mucosa associated with an inflammatory infiltrates. It is very rare among the general population and is extremely rare without colonic involvement. It is usually not associated with Systemic Lupus Erythromatosis, although few incidences have been worldwide.

We present a 53-year-old woman with dyspepsia and mild anemia, with significant past medical history for systemic lupus erythromatosis and hypothyroidism. On endoscopic examination, her upper and lower gastrointestinal tract was normal, however, findings of histopathology examination correlate with collagenous gastritis.

Since, association of systemic lupus erythomatosis with collagenous gastritis is extremely rare, further studies are needed to evaluate the association between both diseases from a pathophysiological and immunological perspective.

Keywords: Collagenous gastritis, Collagen band, Systemic Lupus Erythromatosis.

INTRODUCTION

Collagenous gastritis is very uncommon disease among the general population and was discovered first by Colletti and Trainer in 1989 [1]. It is characterized by thickening of the collagen band under the mucosal epithelium by more than 10μm and infiltration of inflammatory cells in the lamina propria of the mucous membrane [2]. The etiology of this disease is still unclear. However, over expression of HLA-DR by epithelial cells and CD25-positive cells in the lamina propria are seen in the gastric biopsy from patients with collagenous gastritis; which produces cytokines and growth factors that stimulates the production of extracellular matrix leading to collagenous deposition [3]. It is not gender specific and most of them have been associated with colonic involvement, usually presents with chronic watery diarrhea and weight loss. Collagenous gastroduodenitis without colonic involvement is exceptionally rare [4]. Patients usually present with severe anemia. Collagenous gastroduodenitis most likely due to the association with collagenous colitis.

Case Presentation:

We report a 53-year-old woman of South Asian ethnicity who presented to our outpatient department with a 2 years' history of reflux, heartburn and epigastric pain. Our patient described the pain as a dull ache in nature, worsened by ingestion of cold drinks and associated with reflux symptoms. She denied odynophagia, nausea, vomiting, or anorexia. She denied fever, chills, diarrhea, weight loss, hematochezia, or melena. Her past medical history includes iron deficiency anemia that responded to iron supplements and since last 5 years she was being maintained on chloroquine and a low dose of corticosteroids for systemic lupus erythromatosis and hypothyroidism. Family history was negative for gastrointestinal diseases. On examination, she had mild epigastric tenderness.

All laboratory examinations were normal including antithyroid antibody, antiparietal cell antibodies, anti-tissue transglutaminase, thyroid stimulating hormone, erythrocyte sedimentation rate, complete metabolic panel and complete blood count.

Due to severe epigastric pain, she underwent esophagogastroduodenoscopy and colonoscopy. The colonoscopy, which including random colonic biopsies, was normal. Likewise, the esophagogastroduodenoscopy was normal. However, gastric biopsies showed a thickened subepithelial layer with associated gastritis. The subepithelial collagenous layer was homogenous, lightly eosinophilic on hematoxylin and eosin (H&E), and stained with trichrome stain. There were few entrapped fibroblasts, inflammatory cells and blood vessels in the collagenous layer. It was approximately 70μm thick. The inflammatory infiltrate was predominantly lymphoplasmacytic with few neutrophils and eosinophils (Figure 1). Focal active inflammation in the form of cryptitis and reactive glands was present. The test for Helicobacter pylori was positive. She was started on a proton pump inhibitor (PPI) and 10 days of H. pylori eradication therapy. Over the next three months of follow-up, our patient's symptoms improved.

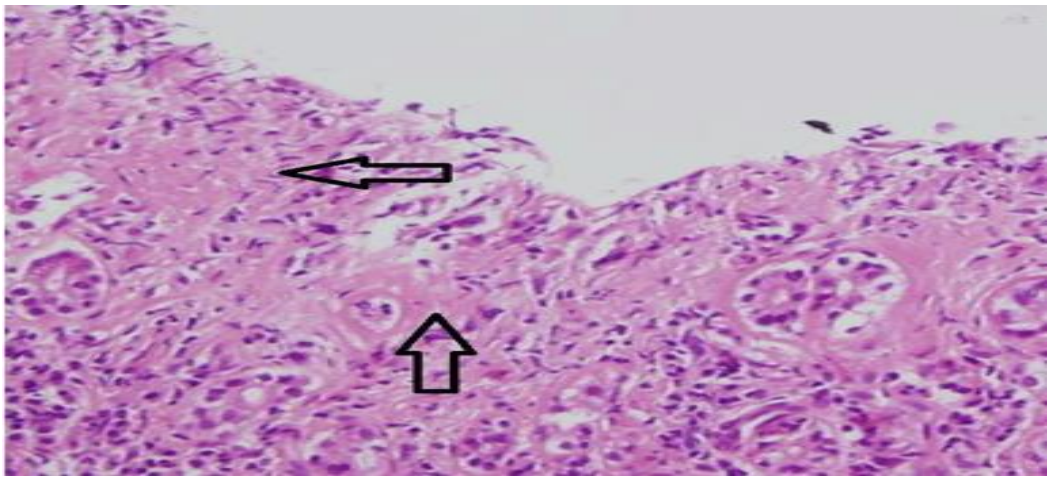

Figure 1: Biopsy from gastric mucosa showing sub-epithelial collagen accumulation (arrows), lymphocytic inflammation of the epithelium, and inflammation in the lamina propria.

DISCUSSION

The patient's clinical presentation was probably consistent with type 1 disease with anemia but with no associated colonic involvement, although at her age, it is more common to have type 2 disease with an associated collagenous colitis. Due to the frequent association with immune related disorders, including celiac disease, collagenous colitis, inflammatory bowel disease and a variety of systemic autoimmune disease, collectively these associations support the hypothesis that collagenous gastroenteritides have an immune activation, including the over expression of HLA-DR by epithelial cells and CD25-positive cells in the lamina propria seen in the gastric biopsy [5]. Those activated immune cells produce cytokines and growth factors that stimulate the production of the extracellular matrix leading to collagen deposition. Collagenous gastritis usually presents with anemia from upper gastrointestinal bleeding and epigastric pain [6].

On endoscopy, the involved mucosa appears thickened and nodular with a diffuse cobblestone appearance. In the stomach the nodularity mainly involves the gastric body, but it is not seen in all cases [7]. Other reported findings include gastric mucosal erythema, erosions, hemorrhages, ulcerations and exudates [1]. The diagnosis of collagenous gastritis is made by histology, which shows distinctive findings. The etiology of collagenous gastritis is unclear. In general, it is considered a chronic persistent histologic disease characterized by a chronic intermittent clinical course in the majority of adult patients [8]. There is no significant mortality risk or periods of severe deterioration [8]. Collagen thickness has been associated with disease duration but not with disease severity. There have been no reports of carcinoma, lymphoma, or definitive dysplasia developing in association with collagenous gastritis [9].

There are no established treatment protocols for collagenous gastroenteritides, including collagenous gastritis, and resolution of the abnormalities either endoscopic or histologic has not been documented. Various therapies have been tried for collagenous gastritis including corticosteroids, ranitidine, omeprazole, sucralfate, sulfasalazine, cholysteramine and a hypoallergenic diet with marginal results [2,6,7,10].

CONCLUSIONS

Since, association of systemic lupus erythomatosis with collagenous gastritis is extremely rare, further studies are needed to evaluate the association between both diseases from a pathophysiological and immunological perspective. Gastroenterologists and pathologists needed to be aware of this condition when evaluating patients with epigastric pain, anemia, and dyspepsia.

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