Crohn's Disease of the Foregut

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KEYWORDS

• Crohn's disease • Esophagus • Gastric • Foregut

KEY POINTS

- Crohn's disease of the foregut is underrecognized.
- The most common location of Crohn's disease in the proximal intestine is in the gastric antrum.
- Surgical management of esophageal Crohn's disease is reserved for complications such as strictures or fistulas.
- The most common indication for surgical management of gastroduodenal Crohn's disease is obstruction.
- The surgical options are gastric bypass or strictureplasty with or without concomitant vagotomy.

INTRODUCTION

In 1932, New York physicians Crohn, Ginzburg, and Oppenheimer published the seminal work describing the small bowel inflammatory process that would carry the eponymous name of its first author.[1] At that time, the disease was believed to be limited to the terminal portion of the small intestine. The authors and others quickly realized that the disease could be more extensively distributed, however. Two years after this initial publication, Crohn asserted that the disease "could involve other segments than the terminal ileum"[2] and he thereby favored the term regional ileitis. That same year, also in New York, the first operation for Crohn's disease involving the foregut likely occurred when Eggers performed an esophagectomy with plastic tube reconstruction for a young man with a benign esophageal stricture.[3]

Although the understanding of Crohn's disease has grown greatly since its first description, the experience with foregut disease remains sparse. It is now well-recognized that Crohn's disease can affect any part of the intestinal tract from the mouth to the anus. The recognition and documentation of foregut Crohn's disease remains underappreciated, however. The exact incidence of proximal intestinal Crohn's is difficult to define and the preponderance of the literature centers around

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case reports and small case series. Estimates of foregut Crohn's disease range between 1% and 13% in patients with documented ileocolic disease.[4] The diagnosis is often made only in patients who have significant symptoms from their upper intestinal disease. Patients that have documented proximal Crohn's disease typically have evidence of the disease in their distal small intestine or colon.[4,5] However, finding the evidence of proximal Crohn's disease often depends on how diligently it is sought.

In 1975, an extensive experience involving more than 8000 cases of regional enteritis was presented. There were no patients demonstrating any involvement of the proximal intestinal tract.[6] Korelitz and associates[7] performed one of the first series specifically looking for evidence of Crohn's disease in the proximal intestine. This evaluation of 45 patients with Crohn's disease distally was performed and histologic lesions were found in almost one-half of the patients, and 24% were diagnostic for Crohn's. An even larger evaluation involving 225 patients suffering from Crohn's disease of the lower gastrointestinal tract was also performed. The authors performed an upper endoscopic examination and found 49% of patients demonstrated evidence of gastric Crohn's disease, whereas 34% had evidence of disease in the duodenum.[8] In another study, Alcantara and colleagues[9] found that 56% of Crohn's disease patients demonstrated upper endoscopic abnormalities. Again, the most frequently affected site was the gastric antrum, followed by the duodenum. In the largest study to date, Oberhuber and coworkers[10] performed a retrospective study of 792 patients with known distal disease. Crohn's disease was identified histologically in the antrum and body in 40% of patients and was found in the duodenum or duodenal bulb in 13% of patients.[10] Clearly, the incidence of foregut Crohn's disease is greater than previously documented and finding it requires only seeking it in patients already diagnosed with the disease distally.

Granulomas, considered to be pathognomonic for the diagnosis of Crohn's disease, are frequently unseen. Despite a diagnosis of Crohn's in the distal bowel, granulomas are seen in only 20% to 30% of grossly abnormal tissue biopsies.[8,9,11] Although they are more commonly found in grossly abnormal lesions, they can be detected in more than 10% of grossly normal tissue as well.[9]

Despite being more common than previously recognized, symptomatic proximal disease is indeed rare. Even patients with concomitant disease tend to seek medical care for their lower intestinal symptoms.[12] It remains imperative that physicians who treat patients with Crohn's disease remain vigilant for the possibility of foregut Crohn's and query for any upper intestinal complaints and perform an upper intestinal investigation if the clinical scenario presents itself.

ESOPHAGEAL CROHN'S DISEASE

First described by Franklin and Taylor in 1950,[13] Crohn's disease of the esophagus is the least common location for the disease in the intestinal tract. A 1983 review of the English-language literature to that point revealed reports of only 20 patients with Crohn's disease of the esophagus.[14] Several large reports have confirmed the scarcity of the condition. One study documents only 9 cases among 500 patients followed long term with Crohn's disease,[15] and a review of a 20-year experience at the Mayo Clinic showed only 20 patients (0.2%) identified as having esophageal involvement.[16] The majority of patients in these reports, however, came to medical attention owing to the severity of their condition. These patients were treated for the painful dysphagia, esophageal strictures, or fistulas associated with advanced, aggressive Crohn's disease. Indeed, 1 study group showed that more than 30% of the patients in their study had disease so severe that it required esophagectomy.[14]