Editorial

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Surgical Treatment of Upper Gastrointestinal Tract Crohn Disease: A Long Way to Go to Identify the Optimal Method

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See Articles on Page 243-248

Crohn disease (CD) is one of the 2 main categories of chronic inflammatory bowel disease. CD has a multifactorial etiology of genetic factors, malfunction of the immune system, gut bacteria dysbiosis, and environmental factors [1]. The incidence of CD in Korea has steadily risen during the past few decades from 0.2 per 100,000 between 1991 and 1995, to 0.5 per 100,000 between 1996 and 2000, 1.3 per 100,000 between 2001 and 2005 [2], and 3.2 per 100,000 between 2006 and 2012 [3]. Furthermore, the prevalence of CD in Korea increased by about 2-fold from 16.0 per 100,000 in 2009 to 29.6 per 100,000 in 2016.

CD is a heterogeneous disorder that can affect any part of the gastrointestinal tract from the oral cavity to the anus [4, 5]. Although routine gastrointestinal endoscopy identified microscopic inflammation in up to 60% of patients with CD in western countries, and mucosal alterations were found in 70% of patients being treated for CD in a Korean tertiary hospital, symptomatic involvement of the upper gastrointestinal tract (UGI) is uncommon and only occurs in 0.3% to 5% of adult patients with CD [6, 7]. The common symptoms of UGI CD are abdominal pain, distension, nausea, vomiting, diarrhea, anemia, and weight loss. UGI CD is initially managed with medical treatment comprising anti-inflammatory and antacid agents, but has a high risk of complications such as stricture, ulceration, obstruction, and fistula. Surgical treatment remains the mainstay for patients with CD with ongoing symptoms or complicated disease. The bowel resection rates for Korean patients with CD are 5.0% and 9.1% at 1 and 5 years after diagnosis, respectively [3]. The mean number of surgeries performed for CD in Korea was 791.8 per year from January 2009 to October 2016 [8]. However, information regarding surgery for UGI CD is sparse and has not been reported for patients with CD in Korea.

Moon et al. [9] analyzed the outcomes of adult patients who underwent surgery for UGI CD during a 20-year period at a single institution. The perioperative outcomes of 24 patients (2.96% of the total cohort) who underwent surgery for UGI CD were compared with those of 787 patients (97.04% of the total cohort) with only distal CD. Compared with patients who underwent surgery for distal CD, patients who underwent surgery for UGI CD had a higher prevalence of concomitant procedures, longer hospital stay, and higher prevalence of postoperative complications. Most patients achieved good outcomes after bypass surgery and/or primary repair. In contrast to previous studies that reported that the most common surgical indication for patients with CD was obstruction [10], 58.3% of the patients in the study by Moon et al. [9] underwent surgery for penetrating fistula. Half of the patients with a fistula might have had penetration of distal CD such as the ileum or transverse colon. Another half of the patients with a fistula were considered to have a primary gastroduodenal fistula caused by CD, and the incidence (0.86% of the total cohort) of primary fistula was similar to that reported in a previous study (less than 1%) [5]. Patients with penetrating fistula had a prolonged hospital stay and higher prevalence of postoperative complications compared with those with obstruction. Overall, the 5-year recurrence rate after surgical treatment of UGI was 5% to 8% [11]. Although the authors did not perform strictureplasty, this may be a valuable option for selected patients with obstructive gastroduodenal CD [12, 13]. Moreover, prior to considering surgery, endoscopic intervention (balloon dilatation with or without corticosteroid injection) may be a good treatment for obstructive lesions in selected patients with UGI CD [14].

An increasing amount of evidences shows that the laparoscopic approach for CD of both lower gastrointestinal tract and the UGI

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improves the postoperative recovery and cosmetic results. Thus, the recent European Crohn and Colitis Organization guidelines recommend the laparoscopic approach for CD surgery when feasible [15]. As UGI CD is frequently associated with ileal or colonic lesions and a history of previous surgery, Moon et al. [9] only used the laparoscopic approach in one patient with UGI CD. Gastrojejunostomy bypass is the procedure that is best suited to the laparoscopic approach for UGI CD, and laparoscopic gastrojejunostomy for duodenal CD was first reported in 1996 [16]. Another study reported that patients who underwent laparoscopic bypass for duodenal CD experienced an early recovery with a similar recurrence rate to those who underwent open bypass for duodenal CD [17].

The medical and surgical management of CD has undergone remarkable advancements due to extensive studies and drug development. The number of surgical cases has decreased due to the introduction of various new drugs. Nonetheless, the idiopathic chronic nature of CD remains largely changeable, and surgery is required in cases with intractable symptoms or complications. The surgical treatment of UGI CD is challenging because of the rarity of such cases and the limited amount of available evidences. Furthermore, there is no clear consensus regarding the optimal surgery. UGI CD in Korean patients may be different from that in other countries. Many recent studies have evaluated the characteristics and clinical course of Korean patients with CD using multicenter or national databases. Considering the severe and complicated nature of UGI CD, there is a need for further studies evaluating multicenter or nationwide data on the surgical treatment of UGI CD to enable the successful surgical treatment of individual patients with this lifelong disease.

CONFLICT OF INTEREST

No potential conflicts of interest relevant to this article were reported.

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