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EDITORIAL

Crohn's Recurrence After Intestinal Resection and Anastomosis

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The majority of patients with Crohn's disease, a chronic inflammatory bowel disease, require surgery during their lifetime. Unfortunately, in many, the disease recurs and surgery may be necessary to treat subjects in whom the disease develops complications, with the actuarial risk of subsequent surgical interventions reported as 1.5 %/year [1].

Confronted with this challenge, surgeons have used different surgical techniques in an attempt to reduce the rate of postsurgical recurrence. At first, surgeons extended the margins proximal and distal to the diseased segment and the mesenteric margin, in the hope that a more radical surgical approach would reduce the risk of recurrent disease. Some advocated intraoperative biopsies of the transection margin in an attempt to eradicate all histologically positive tissue. This approach, not cognizant of the panintestinal nature of the disease, did not reduce the rate of recurrent disease; if anything, it contributed to the occurrence of short gut since macroscopic and microscopic changes extend for a substantial distance from the involved segment.

With the realization that a more aggressive surgical approach did not decrease recurrence rates, surgeons addressed the configuration of the anastomosis. The manuscript by He et al. [2] published in this issue of *Digestive Diseases and Sciences* is a comprehensive attempt to review the available literature on the subject, reporting on the cumulative results of three randomized controlled trials, one prospective observational study, and four retrospective studies analyzing short- and long-term outcomes following two common anastomotic configurations, the side-to-side anastomosis and the hand-sewn end-to-end anastomosis, performed during ileo-colectomy. Their results suggest that the recurrence rate after a side-to-side anastomosis is lower than after an end-to-end anastomosis, supporting the belief that the recurrence rate is lower after a larger anastomosis, as in the side-to-side functional end anastomosis, rather than after a narrower anastomosis, such as, at times, an end-to-end anastomosis.

Yet, it may be premature to accept this conclusion due to several study limitations. As acknowledged by the authors, this meta-analysis includes only eight studies, of which only three are randomized controlled trials; in addition, the median duration of follow-up varies in the two patients groups, with patients followed for much longer times among the group with an end-to-end anastomosis than among the group with a side-to-side anastomosis. This difference in mean follow-up duration possibly implicates length of follow-up rather than anastomotic configuration as the reason for the higher reported recurrence rates in the hand-sewn end-to-end anastomosis group. Finally, the authors have no ability to adjust patients for well-known risk factors for recurrence or to calculate endoscopic and symptomatic recurrence rates following the two anastomotic configurations.

Strictureplasties may protect against recurrence; clinically, it is frequently difficult to recognize the site of a previous strictureplasty at the time of an operation performed years after the index one since the disease seems to have been disappeared, a supposition backed by histopathologic data documenting reduced inflammation and occasional disappearance of Crohn's disease at the site of a strictureplasty [3]. With a meta-analysis which grouped

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more than 3,000 strictureplasties in more than 1,000 patients, Yamamoto calculated that the strictureplasty site-specific recurrence rate is only ~3 % [4].

Recently, Kono has devised an anastomosis that combines some of the features of a Heineke-Mikulicz and a Finney strictureplasty. Dr. Kono has named this new anastomosis an antimesenteric functional end-to-end hand-sewn anastomosis, or Kono-S anastomosis. Initial reports indicate that the endoscopic recurrence rate at 3 and 12 months after surgery is lower than after a side-to-side functional end anastomosis [5]. These initial observations were confirmed by another prospective observational study [6]. A prospective, randomized study is currently under way to corroborate these early encouraging observations. Until the results of this study are known, it is difficult to conclude that one anastomotic configuration is superior to another based on the currently available data.

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