

Crohn's Colitis-like Changes in Sigmoid Diverticulitis Specimens Is Usually an Idiosyncratic Inflammatory Response to the Diverticulosis Rather Than Crohn's Colitis

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Am J Surg Pathol 24:668-675, 2000

Background.—Crohn's disease (CD) and sigmoid diverticular disease (DD) are often found simultaneously in the same patients. Since both of these diseases are found primarily in patients over 60 years and both are common, it could be chance that dictates the presence of both diseases in 1 patient. However, a number of authors have commented on finding both diseases in a single patient. In particular, recent studies have reported that the inflammatory reaction of diverticulosis is actually behind the appearance of CD-like symptoms. Thus, this study sought to define the outcome and optimal classification of these diseases and to determine the histologic relationship between them.

Methods.—Twenty-nine patients with sigmoid resection specimens showing CD-like changes coexistent with DD were included in the study. Twenty-five of these patients had never had CD at the time that they underwent sigmoid resection. Follow-up (median, 6.0 years) was undertaken after resection to determine whether patients were still free of CD.

Results.—Twenty-three of the 25 patients without prior CD remained free of CD until the follow-up period. In 2 patients, CD developed, but in alternate regions of the bowel. The 4 patients who began the study with CD continued to exhibit CD symptoms during follow-up. No histologic features could be directly correlated with those in whom CD developed versus those in whom it did not. Fig 3 shows nonnecrotizing granulomatous inflammation that was typical of patient specimens.



FIGURE 3.—Nonnecrotizing granulomatous inflammation in the lamina propria. This type of exuberant granuloma formation is characteristic of Crohn's colitis-like changes in sigmoid diverticulitis response to the diverticulosis rather than Crohn's

Conclusions clearly and succinctly summarize the results.

Expert commentary demonstrates the impact of the findings on clinical practice.

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Background statements present the key issues addressed.

Methods.—Clinical records and pathologic materials were reviewed for 10 patients with refractory celiac disease. Researchers compared these findings with those of a control group of 10 responsive patients who had biopsy specimens analyzed before and after treatment with a gluten-free diet. Another control group of 10 patients with normal biopsy specimens were also analyzed for mucosal width comparisons. Small intestinal biopsy specimens (mean number, 3.8; range, 1 to 12) from each group were analyzed and graded for pathologic findings including epithelial damage, inflammation, and villous blunting. The grading scores used were mild, moderate, and severe. In addition, slides showing markedly flattened small bowel mucosa from both the test and control groups were randomized and blindly evaluated for mucosal width, subcryptal inflammation, and collagen deposition.

Results.—Four of 10 patients died (1 of pseudomonas pneumonia, 2 of malignancy, 1 of sepsis). Two of 10 patients survived only with total parenteral nutrition. One of 10 patients now requires corticosteroids, and 2 are now responding well to a gluten-free diet. One patient is now receiving a normal diet after a year-long beef-free diet. Collagenous sprue distinctly marking the presence of refractory disease developed in 5 of 10 test patients. Ten of the test patients had subcryptal chronic inflammation. Three patients had marked mucosal thinning. Acute inflammation and gastric metaplasia were noted as non-specific findings. B-cell lymphoma developed in 1 of the patients with collagenous sprue. Patients who exhibited collagenous sprue generally had a poor prognosis.

Conclusion.—The subtle histologic changes presented in this study should be noted by pathologists evaluating small bowel biopsy specimens, especially in the setting of malabsorption. These changes could predict a refractory course of disease.

► Gluten-induced enteropathy (celiac sprue) is associated with villous flattening, increased lymphocytes and plasma cells in the lamina propria, and increased numbers of intraepithelial lymphocytes. Celiac sprue is more severe in the proximal intestinal mucosa, with milder changes found distally. The diagnosis is confirmed when there are supporting serologic tests to go along with the small bowel abnormalities, as well as a histologic response to a gluten-free diet and relapse post gluten challenge. Occasionally, there are patients who do not respond to the dietetic regimen and are considered refractory or unclassified cases of sprue.

Robert et al report the clinicopathologic findings in 10 patients with refractory sprue and compare the small bowel changes with those of 10 patients with responsive celiac disease. The findings associated with refractory sprue include collagenous sprue changes; subcryptal inflammation; and thin, atrophic-appearing mucosa. Except for the collagenous sprue changes, the latter 2 features can be subtle but still significant. Although not mentioned by the authors since it was not the focus of their article, pathologists also need to consider lymph node abnormalities, such as malignant lymphoma, as a cause of nonresponsiveness in patients with refractory sprue.¹³

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