

## Predictors of Adverse Outcome in Elderly Patients With Ischemic Colitis

### To the Editor:

We read with interest the study by Lee et al<sup>1</sup> on the prognostic factors relating to ischemic colitis (IC). Having the chance to establish prognostic factors promptly would be fundamental to decide the right strategy for each case.<sup>2</sup>

The few studies that have been conducted in this area are limited by a low prevalence of ischemic bowel disease and diagnostic issues, due to a wide spectrum of presentations, ranging from isolate splanchnic vessel injuries to ischemic mucosal damage diagnosed by colonoscopy.

Another element that we consider important and that limits the value of these studies is that the vascular disease is closely related to age, not only in its overt forms but also when it occurs as occult or subclinical atherosclerosis.

We feel that it is wrong, in this setting, to consider studies that fail to take these issues into account and do not correct their findings for age as a potential confounding factor.

A recent study showed that, among patients with comparable levels of glomerular filtration rate, older patients were at higher risk of death than younger patients.<sup>3</sup> Despite these considerations, the study conducted by Lee et al highlights an aspect that we consider important, that is, the association between IC and kidney damage, which has been confirmed by our recently published study.<sup>4</sup>

Our retrospective controlled study was designed to evaluate the association between IC and a number of independent risk factors, and to identify any prognostic factors. Only biopsy-proven cases of IC were considered. We identified prognostic factors that differed from those highlighted by Lee et al.

When demographic and comorbid illness were assessed as predictors of mortality, only history of cancer and presence of hepatitis C virus infection

were found to be significant. Other factors such as diabetes or hypertension (which affect a large proportion of elderly people) were not sufficiently specific. Another point of disagreement was abdominal pain, a symptom almost always found in patients with IC. The accuracy of the clinical diagnosis is likely to be less reliable when this symptom occurs acutely in the elderly patients because of their underlying medical problems. Therefore, it is difficult to consider it a diagnostic factor for IC in elderly.<sup>5</sup> On the other hand, we found that hematochezia may be indicative of a positive outcome, probably relating to a more superficial and patchy mucosal damage, which frequently regresses. Unlike other studies focusing on the elderly, we found no significant sex-related differences in prognostic terms.<sup>6</sup> The segment of colon involved in IC also has prognostic implication. Previously, our group and others have shown that patients with isolated right-sided IC have a relatively poor prognosis compared with patients whose ischemic injury involves other areas of colon.<sup>7</sup> Lee et al in their discussion have mentioned the importance of the involvement of right colon. We have reconfirmed these data, and in addition, now show that the left colon pattern has a favorable outcome with a lesser need for surgical intervention.

These differences are certainly due to the small sizes of the series considered, making it necessary—as stated in the above-mentioned article—to perform further prospective studies.

The association between renal dysfunction and IC is very important in clinical practice, as confirmed by our and Lee et al's study, despite the diversity of the 2 works concerning the choice of population and the number of cases.

We plan to explore this aspect, which seems to confirm the hypothesis that ischemic bowel disease is more a disease of the splanchnic district than a disease of a specific organ.

It is consequently not clear to us why the expression of vascular damage underlying the renal and intestinal disease (and more severe when it simultaneously involves both) are not considered among the pathogenetic hypotheses advanced by Lee et al relating to the influence of renal dysfunction on the prognosis for IC. It is a case of the old dilemma, which came first, the chicken or the egg?

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## Rosacea in Crohn's Disease: Effect of Rifaximin

### To the Editor:

Rosacea is a skin disease that manifests as flushing, persistent skin redness (ie, erythematous form), small rounded bumps on the skin (ie, papulopustular form), or dilated superficial blood vessels (ie, telangiectasia).<sup>1</sup> The pathophysiology of rosacea is unknown, but alterations in the immune system, either by organic disease [eg, inflammatory bowel disease (IBD)]<sup>2,3</sup> or immune-altering medications,<sup>4</sup> may predispose individuals to the development

Financial disclosure: Leonard B. Weinstock is on the Salix Pharmaceuticals Speakers Bureau. No funding was used for this study. Editorial assistance was provided under the direction of Leonard B. Weinstock by MedThink Communications with support from Salix Pharmaceuticals, Inc.

Conflict of interest: none.

The authors received no funding and confirm that they had no financial arrangement that might influence this study. The authors have no conflict of interest to declare.

of rosacea. Standard therapy for rosacea includes topical therapies (eg, sodium sulfacetamide) and oral antibiotic medications (eg, doxycycline, tetracycline, minocycline, erythromycin, and metronidazole) for patients who are intolerant of topical therapies.<sup>5</sup>

Rifaximin, a nonsystemic antibiotic with a placebo-like tolerability profile,<sup>6</sup> has shown efficacy for the reduction of symptoms in patients with IBD<sup>7,8</sup> and other gastrointestinal disorders [eg, small intestinal bacterial overgrowth (SIBO) and irritable bowel syndrome]<sup>9,10</sup> and rosacea in the general population.<sup>11</sup> This case series details the efficacy of rifaximin for rosacea in 3 patients with Crohn's disease (CD).

### Case 1

A 30-year-old female patient with an 8-year history of CD presented at a gastroenterology clinic with excess flatulence and diarrhea. Sigmoidoscopy showed severe segmental colitis with sigmoid ulcerations and anal stenosis. The patient had been receiving mercaptopurine and sulfasalazine for CD for 3 years after having a temporary 6-month response to infliximab and prednisone, which had been stopped 1 year before presentation. The patient also reported a 7-year history of papulopustular rosacea. Rosacea had preceded use of infliximab and had gone untreated. Upon presentation, mercaptopurine and sulfasalazine were discontinued because they were ineffective, and rifaximin (1200 mg/d) was prescribed for both CD and rosacea. After 10 days of rifaximin therapy, the patient reported improvement of excess, malodorous flatus and mild improvement of diarrhea. In addition, her rosacea improved, especially on her nose.

### Case 2

A 65-year-old female patient with a 40-year history of mild ileocolitis presented with frequent diarrhea and a 1-year history of nasal erythema and thickened skin overlying her cheeks. She had been receiving only diphenoxylate-atropine for control of diarrhea after having failed budesonide and mesalazine therapy. Rifaximin had been used

earlier to alleviate diarrhea. Therefore, rifaximin (1200 mg/d) was prescribed for 10 days for treatment of both diarrhea and rosacea. At the end of the treatment, the patient experienced reduction of her diarrhea and complete clearing of the erythema on her nose.

### Case 3

A 46-year-old male patient who had an ileocolic resection 26 years ago for CD and was receiving mercaptopurine (1.5 mg/kg/d) (100 mg total) for maintenance of remission presented with 3 loose-to-liquid foul stools per day. He also reported a 5-year history of nose and cheek redness, which had intensified over the earlier year, and a possible genetic predisposition for rosacea (ie, his aunt had rosacea). He had never received treatment for rosacea. Rifaximin (1200 mg/d) was prescribed for 10 days to alleviate gastrointestinal symptoms and rosacea. At the end of rifaximin therapy, the patient had improvement in stool form and odor and complete eradication of the rosacea.

Treatment with rifaximin (1200 mg/d) for 10 days improved skin and gastrointestinal symptoms in all the patients with CD in this case series. Although the presence of SIBO was not studied with breath testing or cultures in these patients, the improvement of gastrointestinal symptoms and rosacea may have been the result of SIBO eradication or improvement in dysbiosis with a subsequent decrease in systemic immune stimulation. This supposition is based on the results of earlier studies that showed the efficacy of rifaximin (1200 mg/d) in resolving SIBO in patients with CD<sup>9</sup> and in resolving rosacea in patients who had eradication of SIBO.<sup>11</sup> Furthermore, rifaximin is nonsystemic, and thus improvement in the skin must be based on manipulation of gut flora. Rifaximin therapy in this case series completely resolved the erythematous rosacea in 2 patients with ileal disease and moderately improved papulopustular rosacea in the other patient who had disease grossly limited to the colon. Given the improvement of rosacea with rifaximin therapy, the data presented here suggest interplay be-

tween SIBO and/or dysbiosis with subsequent immune dysregulation and/or systemic inflammation and rosacea. For this reason, the prevalence of rosacea in patients with IBD and the effect of nonabsorbed antibiotic therapy on rosacea deserve further study.

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