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Letter to the Editor

# Endoscopic Mucosal Healing as a Treatment Target in Ulcerative Colitis: Does It Have the Same Role in Asian Patients?

Suk-Kyun Yang, Sang Hyoung Park, and Byong Duk Ye

Department of Gastroenterology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

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**Corresponding Author**
**Suk-Kyun Yang**
**ORCID** https://orcid.org/0000-0003-2772-2575
**E-mail** sky@amc.seoul.kr

*To the Editor:*

We read with great interest the article by Shin *et al.*,[1] which compared the outcomes of 131 ulcerative colitis (UC) patients in clinical remission according to the endoscopic mucosal healing status and the distribution pattern of mucosal inflammation. The authors reported that poor outcome-free survival was significantly higher in patients with endoscopic remission or only nonrectal inflammation than in those with rectal inflammation (p=0.003). Poor outcome-free survival in patients with only nonrectal inflammation was comparable to that in patients with endoscopic remission (p=0.647). In multivariable Cox regression analysis, rectal inflammation (hazard ratio, 5.76; p=0.027) was the only predictor of poor outcome. Therefore, the authors suggested that treatment escalation may be selectively required in consideration of the distribution pattern of residual mucosal inflammation in UC patients in clinical remission.

Mucosal healing has emerged as a key prognostic factor in the management of UC.[2] Previous studies have demonstrated that mucosal healing in UC is associated with prolonged clinical remission and lower risks of hospitalization, colectomy, and colorectal cancer.[3-6] However, these studies evaluated only the grade of residual mucosal inflammation and did not consider the distribution pattern of residual mucosal inflammation. Moreover, most of these studies were conducted in Caucasian populations[3-6] and only a few small-scale studies were conducted in Asian populations.[7,8] The study by Shin *et al.*[1] was the first to evaluate the distribution pattern of residual mucosal inflammation in UC patients in clinical remission and to compare disease outcomes according to the distribution patterns. In addition, this was the largest study to evaluate the prognostic role of mucosal healing in Asian patients with UC. Their results may provide a basis for minimizing unnecessary treatment escalation that potentially increases the risk of adverse effects.

However, before applying these results to clinical practice, we would like to address some concerns. First, although the definition of poor outcome in this study was step-up therapy, hospitalization, and colectomy, none of the 131 patients included in the study was hospitalized or underwent colectomy during the median follow-up of approximately 5 years. Consequently, outcome was assessed by the presence of step-up therapy alone. This is in contrast with previous Western studies, in which outcome was assessed by clinical relapse, hospitalization, and colectomy.[3-6] Physicians may decide to adopt medication escalation earlier and more frequently in patients with residual rectal inflammation than in those with only nonrectal inflammation, even when the symptom status is similar between the two groups, because rectal inflammation is generally considered to evoke symptoms more frequently than nonrectal inflammation. In this regard, medication escalation may be a less objective outcome parameter than the others. Second, the finding of no hospitalization or colectomy during the median follow-up of approximately 5 years may indicate that the prognosis of Korean UC patients is better than that of Western

UC patients. The genotypes and phenotypes of UC in Asia, where the incidence and prevalence rates of UC are still low but rapidly increasing,[9-11] differ from those in Western countries.[12] Notably, compared with the colectomy rate in Western UC patients, the rate in Asian UC patients is very low.[13,14] Therefore, it is uncertain whether the result of this study showing the same risk of step-up therapy between patients with residual nonrectal inflammation and those with endoscopic remission can be generalized to Western UC patients who have a worse prognosis than Asian patients. Third, even if future studies confirm that nonrectal residual inflammation in UC patients in clinical remission is not associated with poor outcomes in terms of hospitalization and colectomy, this inflammation may still be associated with an increased risk of colorectal cancer in the long term.[15]

Therefore, further studies with longer follow-up durations and larger sample sizes are needed to assess the risks and benefits of treatment escalation for nonrectal residual inflammation in UC patients in clinical remission. We expect that the prospective observational cohort of Moderate-to-Severe Ulcerative Colitis in Korea (MOSAIK) will provide answers to this question.[16] Although final conclusions still need to be made, the results of this study may still be useful for consulting patients and making treatment decisions. We can safely withhold treatment escalation in asymptomatic UC patients with residual nonrectal inflammation if they have a high risk of adverse events or are reluctant to undergo step-up therapy.

## CONFLICTS OF INTEREST

No potential conflict of interest relevant to this article was reported.

## ORCID

Suk-Kyun Yang https://orcid.org/0000-0003-2772-2575
Sang Hyoung Park https://orcid.org/0000-0002-5366-5749
Byong Duk Ye https://orcid.org/0000-0001-6647-6325

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