Colonic diverticulitis is clinically significant due to its increasing incidence, with over 10% of cases presenting as a complicated disease associated with abscesses, fistulas, perforations, and sometimes obstruction and bleeding. Moreover, recurrent episodes occur in approximately 20% of cases. Recent guidelines have led to the adoption of more conservative approaches in the treatment of diverticulitis. Uncomplicated diverticulitis can be managed conservatively in an outpatient setting without the immediate use of antibiotics. Moreover, in cases with abscesses measuring less than 4 cm, antibiotics are often prioritized over surgical intervention. A particular concern is immunocompromised individuals, such as those receiving various immunosuppressive therapies or organ transplant recipients, who are at increased risk for diverticulitis and complications. However, the definition of immunocompromised patients varies across studies, and research directly comparing diverticulitis outcomes based on immunocompromised status is limited.

In the current issue of Intestinal Research, Lee et al. investigated the comparative clinical outcomes including the medical and surgical treatment of acute colonic diverticulitis, between immunocompetent and immunocompromised patients through a systematic review and meta-analysis. Ten observational studies were included, involving 5,339 immunocompromised patients and 1,941,122 immunocompetent patients with acute diverticulitis requiring hospitalization. The risk of emergency surgery, postoperative mortality after emergency surgery, and overall mortality were significantly higher in immunocompromised patients than in immunocompetent patients (risk ratio [RR] 1.76, 95% confidence interval [CI] 1.31–2.38; RR 3.05, 95% CI 1.70–5.45; RR 3.65, 95% CI 1.73–7.69, respectively). Other significant findings include longer hospital stays (mean difference of 6.12; 95% CI, 2.04–10.20) and greater postoperative morbidities (RR, 2.07; 95% CI, 1.83–2.34) in immunocompromised than immunocompetent patients. Overall complications were higher in immunocompromised patients but insignificant (RR, 1.24; 95% CI, 0.95–1.63). No significant difference in recurrence was observed between the 2 groups (RR, 0.96; 95% CI, 0.70–1.33). Subgroup analysis based on diverticulitis severity found that emergency surgery and recurrence risks were significantly higher only in immunocompromised patients with severe diverticulitis accompanied by complications. This systematic review and meta-analysis provide valuable insights that may help manage diverticulitis in immunocompromised patients by comprehensively analyzing...
medical and surgical outcomes. However, this study primarily analyzed research on left colon diverticulitis. Thus, it is unclear whether these findings can be directly applied to right colon diverticulitis, which is more common in Asian populations. Furthermore, while the results of this study may offer insights into the treatment of diverticulitis in immunocompromised individuals, the lack of a precise definition of ‘immunocompromised patients’ requires further investigation to determine which patients require more rigorous management and early surgical interventions. In a study analyzing the association between the different causes of immunosuppression and outcomes of diverticulitis, immunocompromised patients were divided into 5 groups according to the causes of immunosuppression. The rate of emergency surgery was high in overall immunocompromised patients, but it was more frequently observed in patients on chronic corticosteroid therapy. Moreover, it has not yet been established whether immunocompromised patients are at a higher risk in cases of uncomplicated diverticulitis. Additionally, the criteria for routine antibiotic use and the need for hospitalization in such cases remain unclear.

Given that immunocompromised patients with complicated or severe diverticulitis are at increased risks of emergency surgery and recurrence, and considering the increased postoperative mortality following emergency surgery, there is a pressing need for stringent medical management and early surgical consultation. Timely elective surgery should also be considered. However, it is important to exercise caution when making decisions regarding surgery, including elective surgery, in immunocompromised patients, because postoperative morbidity tends to be higher in this population. Although there are reports of a higher risk of complicated recurrent disease in immunocompromised patients following severe diverticulitis than in immunocompetent patients, the decision to perform sigmoid colectomy after recovery from uncomplicated acute diverticulitis in immunocompromised patients should be individualized. Further research is required to assess the outcomes of recurrent disease, quality of life, and long-term survival based on the decision to undergo elective surgery.

ADDITIONAL INFORMATION

Financial Support
The authors received no financial support for the research, authorship, and/or publication of this article.

Conflict of Interest
Park Y is an editorial board member of the journal but was not involved in the peer reviewer selection, evaluation, or decision process of this article. No other potential conflicts of interest relevant to this article were reported.

Data Availability Statement
Not applicable.

Author Contributions
Writing and approval of the final manuscript: Park Y.

ORCID
Yehyun Park https://orcid.org/0000-0001-8811-0631

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