

INTESTINAL RESEARCH

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## **Author's Reply**

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We would like to express our gratitude to Dr. Kang for his interest and comments. Our study was prompted by curiosity over whether objective evaluation of rectal effluent by using photographic examples would improve prediction of the quality of a bowel preparation.<sup>2</sup> As Dr. Kang pointed out, our study has several limitations. First, it is difficult to apply in actual practice. Patients would be inconvenienced by having to remember the extent of the last three rectal effluents, and physicians would have the difficult task of educating patients, assessing total points, and determining the necessity of an additional preparation. However, as Fatima et al. reported, there is some agreement between the patient's description of rectal effluent and the bowel preparation quality.<sup>3</sup> In our study as well, the score of the last rectal effluent did not differ between two groups (1.41±0.56 in the optimal group and  $1.61\pm0.72$  in the suboptimal group, P=0.111). Therefore, we made the effort to assist patients in evaluating their last three rectal effluents. We agree with Dr. Kang that the method is complicated and difficult to apply to the general population. Second, there is ambiguity in the photographic examples, especially between B, C, and D. The number of photographs may be narrowed down from five examples to four, to reduce this ambiguity. However, the main point of our study is that photographic examples may enhance the predictive value of a bowel preparation by using rectal effluent. Lastly, considering the cost of colonoscopy and difficulty for a patient to undergo reexamination, setting a cut-off point at higher sen-

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sitivity for detection of a suboptimal preparation could be more important than the specificity. When we set the cutoff point at 11, the sensitivity, specificity, positive predictive value, and negative predictive value would be 4.5%, 100%, 100%, and 69.1%, respectively. However, only 2 of 44 patients showing suboptimal bowel preparation were rectal effluent score ≥11. This means that changing cut-off point to maximize the specificity may increase unnecessary trials of colonoscopic examinations for the patients whose actual bowel preparation status is very likely to be suboptimal. Moreover, when we conducted receiver operating characteristic analysis, the value under the curve for discriminating a suboptimal bowel preparation was only 0.608, which is not an acceptable value for clinical use. We believe that a better method should be investigated for prediction of suboptimal bowel preparation in the future.

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