Is the Intestinal Gas Associated With the Development of Right Colonic Diverticula?: Author's Reply

TO THE EDITOR: We appreciate Dr. Joo for his interest and comments.¹ The factors developing colonic diverticulosis are reported as age-associated alterations in the colonic wall, dietary fiber intake, motor dysfunction, genetic influences, altered colonic motility and abnormal intraluminal pressure.² Methane gas could promote non-propagating or segmental contractions which could elevate intraluminal pressure. In previous studies, the amplitudes of peristaltic contractions and intraluminal pressures in ileum were significantly increased in the group treated with methane gas infusion.³ The straining and high amplitude, non-propulsive contractions that lead to high intraluminal pressure have been known to cause the formation of left colonic diverticula.⁴ Our study was to investigate a role of methane gas in the development of right colonic diverticula.

As you suggested in first point, lactulose breath test (LBT) has been used as a presumptive test for small intestinal bacterial overgrowth. However, recently some reports suggest that abnormal LBT cannot discriminate between patients with irritable bowel syndrome and the control,⁵ which is consistent with our previous study.⁶ In this study, LBT was used to predict the amount of methane gas produced by enteric bacteria indirectly by measuring breath methane or hydrogen excretion on pattern over time. This study showed diverticular and control group demonstrated similar pattern.

We agree with your second point that colonic diverticular disease may contribute to the development of clinical symptoms

and abnormal LBT. In this study, patients with right diverticula were categorized to subgroups with positive and with negative LBT to observe any differences in symptoms. However we did not found any difference between the 2 subgroups.

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Conflicts of interest: None.