Bowel Preparation for Surveillance Colonoscopy After a Colorectal Resection: A New Perspective

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Colonoscopy is the standard method for visualizing the mucosa of the entire colon and the most effective tool for screening for colon cancer. The diagnostic accuracy and therapeutic safety of colonoscopy depend on the quality of bowel preparation. However, previous studies reported that inadequate bowel preparation (IBP) rates ranging from 18% to 35% [1, 2]. IBP is associated with the quality of colonoscopy in the forms of decreased adenoma detection rate, increased cecal intubation failure, and prolonged procedure time [3, 4]. Moreover, IBP at the time of colorectal cancer screening colonoscopies was reported to result in increased adenoma miss rates of up to 46% [5]. Numerous studies have been performed to identify risk factors of IBP for screening colonoscopy. Advanced age, male sex, previous IBP, inpatient status, obesity, constipation, narcotic use, and comorbidities such as diabetes mellitus, stroke, and dementia were reported as risk factors for IBP [6, 7]. However, few studies focused on identifying risk factors of IBP for surveillance colonoscopy after a colorectal resection.

In this issue, Lee and Chun [8] analyzed the risk factors affecting IBP in patients with colorectal cancer who had undergone surgical treatment. They excluded patients who had undergone open abdominal surgery and who had an abnormal gastrointestinal condition such as stricture or obstruction. Finally, 1,317 patients were enrolled. Of these patients, 289 (21%) had IBP. A multivariate analysis revealed surveillance colonoscopy within one year after surgery and age over eighty to be independent predictors of IBP. They observed a significantly high IBP rate for the low-volume

bowel preparation regimen among patients who underwent a surveillance colonoscopy within one year after surgery. Therefore, they recommend the use of conventional 4-L polyethylene glycol solution when preparing for a surveillance colonoscopy, especially up to 1 year after surgery. They explained that the reason of the high rate of IBP at the first-year surveillance colonoscopy is due to bowel resection or denervation, both of which affect colon motility [8]. Constipation is a main manifestation of gastrointestinal dysmotility. Previous studies investigating the effect of constipation on bowel preparation were inconclusive. Some studies did not report constipation to be a risk factor for IBP [9, 10], whereas others reported the opposite [7]. Interestingly, however, as the symptoms associated with gastrointestinal dysmotility after colorectal surgery were alleviated over a period of 1 to 2 years [11], the IBP rate began to decrease with time after the first-year surveillance colonoscopy [8].

Changes in gastrointestinal dysmotility and the enteric nervous system after a colorectal resection have not yet been fully established. Thus, to improve diagnostic accuracy, surgeons need to understand the numerous factors that can cause IBP for surveillance colonoscopy after colorectal surgery. In practice, gastroenterologists provide highly variable recommendations regarding the timing of a follow-up colonoscopy when bowel preparation is not adequate [12]. Patients with IBP for their surveillance colonoscopies should be offered a repeat colonoscopy at least within 1 year. A shorter interval is indicated when advanced and/or multiple polyps are discovered in a poorly prepared colon.

CONFLICT OF INTEREST

No potential conflicts of interest relevant to this article were reported.

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