Improved capsule endoscopy after bowel preparation

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BACKGROUND: The diagnostic yield of capsule endoscopy depends on the quality of visualization of the small-bowel wall and complete passage through the small bowel. This study examined the effect of bowel preparation on the volume of intestinal content and on small-bowel transit. METHODS: Sixty-one consecutive patients (34 men, 27 women; mean age 56 years, range 17-88 years) were enrolled in the study. Although not randomized, 33 patients received a bowel preparation, and 28 had no preparation. Gastric emptying, small-bowel transit time, overall preparation assessment, and bowel-wall visualization were evaluated by 3 investigators who were unaware of whether the patient had undergone bowel preparation. RESULTS: Small-bowel transit time was significantly shorter in patients with bowel preparation (median 213 minutes: 95% CI[190, 267]) than in those without preparation (median 253 minutes: 95% CI[228, 307]) (p <0.01). The capsule reached the cecum in 97% of patients in the bowel-preparation group, compared with 76% in the nonpreparation group (p=0.02). Bowel preparation improved the quality of visualization significantly; this effect was more pronounced in the distal small bowel. CONCLUSIONS: This study demonstrated that bowel preparation accelerates small-bowel capsule transit and leads to a higher rate of complete capsule endoscopy. Visualization of the small bowel was improved by bowel preparation. Bowel preparation before capsule endoscopy is recommended.

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