

Colonoscopy in the sitting position: lessons learned from self-colonoscopy by using a small-caliber, variable-stiffness colonoscope

Colonoscopy is typically done in the supine position, with the patient's position varied as needed to assist instrument insertion. We found that a newly developed, small-caliber, variable-stiffness colonoscope (PCF-P240AI; Olympus Optical Co, Ltd, Tokyo, Japan), designed for colonoscopy in pediatric patients, was especially useful in patients with difficult colonoscopy.¹ The outside diameter is 10.3 mm, and the working length, the field of view, and the range of the tip flexion are similar to those of standard colonoscopes. The characteristics of the endoscope appeared to be such that it might enable an endoscopist to perform self-colonoscopy screening, which could be a valuable research tool, (eg, to repetitively study the effects of drugs or therapies).

TECHNIQUE

After bowel preparation, the endoscopist (A.H.) sat on the back of a chair in front of the monitor. The endoscopist, who was directly facing the monitor, then self inserted the colonoscope into the colon (Figure 1). The knob of the colonoscope was manipulated with the endoscopist's left hand, and the insertion tube was held with the right hand.

EXPERIMENT

In our first attempt, complete colonoscopic examination to the cecum was completed within 4 minutes, with only mild discomfort related to looping of the sigmoid colon. Because this initial attempt was so easy, it was repeated 3 additional times over the following 2 months, with cecal intubation times of 5, 3.5, and 4 minutes.



Figure 1. Self colonoscopy in the sitting position.

Surprisingly, the endoscopist learned that the feasibility and the discomfort were different in each session, despite the same examiner and the same patient. This finding supports our view that patient discomfort during endoscopy may vary within the same patient.

DISCUSSION

In our "personal" experience, self colonoscopy proved not only possible but simple and efficient. It is not clear what proportion of the ease and the simplicity was related

to the particular endoscope, to the sitting position, or to the skill of the endoscopist. The fact that colonoscopy was surprisingly easy with the patient in the sitting position suggests that studies to compare sitting vs. supine positions with different endoscopes are warranted. To be feasible, colonoscopy in the sitting position would likely require the use of a specially designed colonoscopy chair.

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REFERENCE

1. Horiuchi A, Nakayama Y, Kajiyama M, et al. Usefulness of a small-caliber, variable-stiffness colonoscope as a backup in patients with difficult or incomplete colonoscopy. *Am J Gastroenterol* 2004;99:1936-40.