

Tagged Virtual Colonoscopy succeeds where colonoscopy fails in elderly

3/28/2006

Even in expert hands, optical colonoscopy fails to reach the cecum in at least 10% to 15% of patients, with a progressively greater failure rate among elderly and frail patients. A new study from Italy suggests that virtual colonoscopy with fluid and fecal tagging may be an ideal replacement. In patients with failed conventional colonoscopy, VC identified several cancers and earned high marks for patient comfort.

For the elderly and infirm, "the reasons for incomplete colonoscopy are redundant colon, stenosing lesions, diverticular disease, and frail patients, and the number (of incomplete exams) tends to grow in parallel with age," said lead investigator Dr. Francisco Lafrate from the University of Rome "La Sapienza."

The study, presented earlier this month at the European Congress of Radiology (ECR) in Vienna, sought to evaluate the value of CT colonography (CTC or virtual colonoscopy) in elderly patients and frail patients in whom conventional colonoscopy could not be completed.

The group performed virtual colonoscopy on 68 patients (32 men and 36 women; mean age 81, range 70-92) whose colonoscopy exams had been incomplete, including four frail patients (ages 61-90).

"All patients underwent conventional colonoscopy prior to (VC)," Lafrate said. "The stop point was primarily in the sigmoid colon in 64% of cases, and conventional colonoscopy had failed to assess 246 of 408 potentially visible colonic segments," he said.

A laxative-free prep protocol required patients to avoid high-fiber foods for two days before VC. They also ingested Gastrografin ([Schering](#), Berlin) and diatrizoate meglumine (180 mL within two days prior to VC) mixed with water during lunch or dinner. Twenty-eight symptomatic patients also received iodinated IV contrast. No antiperistaltic drugs were used.

VC was successful in 66 of the 68 (97%) patients with incomplete colonoscopy, identifying additional lesions in the proximal colon in 19% of patients, including three primary carcinomas, 12 polyps in eight patients, and two lipomas, Lafrate said.

The main causes of incomplete conventional colonoscopy were redundant colon (57%), diverticular disease (40%), and occlusive mass (3%). A large peritoneal liposarcoma was found in one patient whose optical colonoscopy exam had been incomplete.

The mean duration of the VC exam was nine minutes, and the mean reading time was 11 minutes. Patient acceptance as rated good, as well as patient compliance and patient preparation, Lafrate said.

"A questionnaire was administered to determine the subjective experience of the patients," who reported no major discomfort or other problems, he said. All patients completed the prep and exam.

VC is both feasible and effective for evaluating colorectal segments not visualized during colonoscopy, and has an important role in elderly and frail patients for whom conventional colonoscopy is often difficult or impossible to perform, Lafrate concluded.

The bowel preparation, emphasizing a low-residue diet combined with fluid and fecal tagging, provided good cleansing, better patient compliance, and an easier prep for these elderly patients, he said. Fluid and fecal tagging improved specificity, as well as sensitivity for smaller lesions.