

## Effect of Virtual Colonoscopy Was Minimal

BY JANE NEFF ROLLINS  
Contributing Writer

LOS ANGELES — Establishment of a screening program using virtual colonoscopy did not lead to a decrease in the number of standard optical colonoscopies performed within 14 months of its introduction, Dr. Darren C. Schwartz reported at the annual Digestive Disease Week.

Only a small proportion of patients who underwent virtual colonoscopy were subsequently referred for optical colonoscopy with polypectomy, said Dr. Schwartz, a fellow at the University of Wisconsin, Madison.

Contrary to the researchers' initial hypothesis, there was no observable shift in the purpose of optical colonoscopy referrals from screening to therapeutic interventions such as polypectomy.

Dr. Schwartz and his colleagues measured the impact of primary screening virtual colonoscopy on the demand for optical colonoscopy at the University of Wisconsin Medical Center. This project was feasible because in 2004, third-party payers in Wisconsin agreed to pay for primary screening virtual colonoscopy for patients at average risk for colorectal cancer.

All optical colonoscopy procedures were performed by 10 university attending gastroenterologists, and all virtual colonoscopy procedures were performed by three attending radiologists at the same university-based endoscopy unit.

The investigators collected virtual colonoscopy and optical colonoscopy referral data and information about the number and type of procedures prospectively. The relevant time periods were the 3 months before the introduction of screening virtual colonoscopy (T1), the period from 3 months before to 5 months after virtual colonoscopy became available (T2), and the 14-month period after introduction of virtual colonoscopy (T3).

The investigators also looked at the period 6-14 months after virtual colonoscopy screening was initiated (T4) because they thought there would be an initial increase in virtual colonoscopy productivity during the first 6 months, followed by a "steady state" level of productivity.

End points included monthly referrals for virtual colonoscopy and optical colonoscopy, monthly number of virtual colonoscopies actually performed, and monthly numbers of screening optical colonoscopies, total optical colonoscopies, and optical colonoscopies with polypectomy.

Monthly referrals for screening optical colonoscopy fell from a mean of 255 (T1) to 218 (T3) after institution of virtual colonoscopy screening, but this decrease was not significant. The total number of optical colonoscopies and the number of screening optical colonoscopies actually performed per month also did not change significantly. The mean percentage of optical colonoscopies with polypectomy remained essentially constant during all study periods, ranging from 40.5% for T2 to 42.9% for T4.

Of the patients who had screening virtual colonoscopies during study period T4 (mean of 120 per month), 15.1% had polyps detected and 7.0% (8.4 per month) were referred for optical colonoscopy with polypectomy. In addition, 136 patients initially referred for optical colonoscopy subsequently opted for virtual colonoscopy between T2 and T4.

Dr. Schwartz reported no relevant financial relationships. ■

## Virtual Colonoscopy Has 5% Failure Rate On Advanced Lesions, 5% False Positives

BY BETSY BATES  
Los Angeles Bureau

LOS ANGELES — Virtual colonoscopy missed adenomatous lesions in 12% of patients, including 5% who had advanced lesions detected only on a follow-up optical colonoscopy, researchers reported at the annual Digestive Disease Week.

Investigators at the University of Wisconsin, Madison, studied records of 160 patients who first had virtual colonoscopy performed by primary 3-D read with 2-D resolution and were then sent for optical colonoscopy.

Patients had both tests if a significant portion of the colon was not visualized on virtual colonoscopy, if they had findings of a polyp or mass greater than 10 mm, if virtual colonoscopy detected polyps between 6 mm and 9 mm, or at the patient's discretion. Lesions less than 6 mm that were seen on

virtual colonoscopy were not reported, and patients with these lesions were not referred for optical colonoscopy.

Invasive colonoscopy detected adenomatous lesions not seen on virtual colonoscopy in 19 of 160 patients. Eight of these patients had previously undetected advanced lesions, defined

**In 54 patients, conventional colonoscopy detected 138 lesions that had not been seen on virtual colonoscopy, including 99 less than 6 mm and 12 greater than 9 mm.**

as any adenoma greater than 9 mm or a lesion less than 9 mm with villous pathology.

The second test also detected a false-positive rate of 5% with virtual colonoscopy.

In all, conventional colonoscopy detected 138 lesions, in 54 patients, that had not been seen on virtual colonoscopy, including 99 less than 6 mm, 27

between 6 mm and 9 mm, and 12 greater than 9 mm. Most of the lesions were hyperplastic.

"These findings suggest that virtual colonoscopy identifies the majority of colorectal polyps with advanced pathology during routine screening examinations," said Dr. Daniel Cornett of the section of gastroenterology and hepatology at the University of Wisconsin, Madison.

But he added that virtual colonoscopy poses a "small risk" of missing polyps with advanced pathology, "especially smaller polyps less than 9 mm in size with villous pathology and larger adenomas that are flat in nature or resemble a mucosal fold."

Both Dr. Cornett and coauthor Dr. Courtney Barancin, a gastroenterology fellow, expressed concern that some protocols for virtual colonoscopy do not refer for optical colonoscopy patients with lesions less than 6 mm. ■

## Colorectal Ca Follow-Up Is 70% at 3 Years

BY DOUG BRUNK  
San Diego Bureau

LOS ANGELES — Between 1992 and 2002, only 70% of patients who underwent colorectal cancer resection received recommended surveillance at 3 years, results from a large analysis showed.

The surveillance rate at 1 year was much lower—26%—but that figure "can be deceiving because we looked specifically at [surveillance] 12 months post procedure. So if somebody got screened at 15 months, we're not necessarily going to pick that up," lead study author Dr. Harry L. Reynolds said in an interview during a poster session at the annual Digestive Disease Week.

A more realistic number to look at would be the 3-year mark, he said. But even at 3 years, "we're not where

we need to be in terms of screening or surveying our postop colectomy/proctectomy patients," said Dr. Reynolds of the colorectal surgery division at University Hospitals of Cleveland.

He and his associates used a linked Surveillance Epidemiology and End Results Medicare database to identify patients with colorectal carcinoma who underwent colectomy and/or proctectomy between 1992 and 2002. Patients included in the analysis were age 65 or older, were not in an HMO, were enrolled in Medicare Part B, and underwent surgical resection for a stage I-III colorectal cancer.

The mean age of the patients was 77 years. Most (75%) had undergone surgery for colon cancer, while 25% had undergone surgery for rectal cancer. Dr. Reynolds and his associates reported that 62,882 patients survived 1

year after surgical resection and 35,784 survived through 3 years.

Fewer numbers of African Americans and Hispanics (63% and 66%, respectively) received surveillance at 3 years, compared with whites and Asians (71% and 70%, respectively). The differences were statistically significant "but the actual variations aren't huge," Dr. Reynolds said. Reasons for the differences are not known, he added, but "there may be some regional differences in access to care, [and] there may be some economic issues." Variation in the surveillance rates was also seen among the 13 different geographic regions used in the analysis, ranging from 23% to 33% at 1 year and 67% to 76% at 3 years.

The American Cancer Society and the National Cancer Institute supported the study. ■

## ACE Inhibitors May Cut Risk of Colorectal Cancer

LOS ANGELES — Long-term ACE inhibitor therapy was associated with a 21% decreased risk of colorectal cancer in a cohort of hypertensive patients over age 50, Dr. George Makar reported at the annual Digestive Disease Week.

"The benefit of ACE inhibitors is most pronounced with 5 years of exposure," said Dr. Makar, of the gastroenterology division, University of Pennsylvania School of Medicine, Philadelphia. The protective effect was greater (75%) in people with diabetes than in nondiabetics, he noted.

Dr. Makar and his colleagues conducted a nested, case-control cohort study of hypertensive patients older

than 50 years, some of whom were receiving long-term ACE inhibitor therapy. Using the General Practice Research Database (United Kingdom), they identified 1,988 subjects with a new diagnosis of colorectal cancer; each case was matched to up to 10 controls (total of 18,131) based on age, sex, calendar year, and duration of follow-up. Patients were excluded if they developed colorectal cancer within 1 year of their diagnosis of hypertension or if cases had received ACE inhibitor therapy before their cancer diagnosis for less than 1 year.

ACE inhibitor therapy of more than 3 years' duration was associated with a significant reduction in colorectal

cancer risk (OR 0.79); the analysis was adjusted for duration of hypertension follow-up and number of physician visits within 1 year of the index trial visit. The investigators found a significant duration-response effect among patients with diabetes (adjusted OR 0.27). There was no significant difference between users and nonusers of aspirin or NSAIDs.

Limitations of the study included incomplete data on obesity and tobacco exposure. Also, no data were collected on potential confounders such as family history and use of over-the-counter NSAIDs and dietary supplements.

—Jane Neff Rollins