

Screening Colonoscopy Questions Are Explored

Studies address the value of screening at age 80 and older, and the 10-year interval after a negative result.

BY MARY ANN MOON
Contributing Writer

Two studies that addressed unrelated, lingering questions about colonoscopy screening should help physicians decide when to recommend the procedure and should help patients decide when to undergo it.

One group of researchers investigated whether it is reasonable to recommend a screening interval of 10 years after a colonoscopy yields negative results. This interval has been widely adopted "based on the estimate of the time it takes for an adenomatous polyp to transform into carcinoma," but no one has ever demonstrated how long cancer risk remains decreased after a negative colonoscopy.

The second study assessed the value of performing screening colonoscopy in people aged 80 years or older. Current guidelines do not specify when it is reasonable to stop performing the procedure in aging patients, even though the benefits are limited because of their diminishing life expectancies and because the elderly have lower procedural completion rates and higher complication rates than do patients in their 50s or 60s.

In the first study, Dr. Harminder Singh and his associates at the University of Manitoba, Winnipeg, found that the likelihood that colorectal cancer will develop after a screening colonoscopy yields negative results remains low for more than 10 years.

They identified 32,203 members of the general population in Manitoba who had undergone colonoscopy with negative results between 1989 and 2003 and had been followed for at least 6 months for the development of colorectal cancer.

The researchers calculated that the incidence of colorectal cancer (CRC) in these patients was at most 60%-70% of the risk in the general population. "If a patient

has a single negative colonoscopy result and does not require further colonoscopy for a particular indication, the likelihood of developing CRC is extremely low, and for this group a screening interval ... can be reasonably set at more than 10 years," Dr. Singh and his associates wrote (JAMA 2006;295:2366-73).

In the second study, Dr. Otto S. Lin of Virginia Mason Medical Center, Seattle, and his associates estimated the mean extension in life expectancy after colonoscopy screening in 1,244 patients who underwent screening between 2002 and 2005. The subjects were categorized by age: 1,034 were aged 50-54 years, 147 were aged 75-79 years, and 63 were aged 80 years or older. The prevalence of neoplasias increased with age. The oldest group had 14% prevalence, compared with 3% in the youngest group.

Nevertheless, screening colonoscopy extended life expectancy only by a mean of about 1 month in the oldest patients, compared with a mean of nearly 1 year in the youngest group. This is because the oldest patients "are much more likely to die of 'natural' causes before an adenoma turns into cancer, thus negating any potential benefits of colonoscopy and polypectomy," Dr. Lin and his associates wrote (JAMA 2006;295:2357-65).

"Currently, very elderly patients and their physicians are using individual judgment to decide whether to undergo screening. These decisions are based on scant data regarding the impact of screening colonoscopy on life expectancy," the authors noted.

Physicians and patients should keep in mind not only that the gain in life expectancy may be small but also that procedure times are longer, rates of completed cecal intubation are lower, risks of bowel perforation are higher, and suboptimal bowel preparation is more likely in the elderly, the researchers added. ■

Low Literacy Undercuts Proper Preparation for Colonoscopy

BY BETSY BATES
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LOS ANGELES — Low literacy was by far the most common independent predictor of poor bowel preparation and incomplete colonoscopy in a study presented at the annual Digestive Disease Week.

Among 195 patients who underwent colonoscopy at an inner city hospital, John H. Stroger Jr. Hospital of Cook County, 30% had poor bowel preparation, requiring a repeat examination. Another 22% had only "fair" bowel preparation, meaning small or flat lesions could be missed, reported Dr. Rony Ghaoui, a fellow in gastroenterology at Rush Medical College, Chicago.

Fully one-quarter of the colonoscopies were incomplete, 90% of them because of poor bowel preparation. The patients included in the study ranged in age from 18 to 82 years (mean age 54). Most (64%) were women, and 49% were African American, 32% were Hispanic, and 11% were non-Hispanic white.

Written instructions given to patients at the time the colonoscopies were scheduled were available in either English or Spanish. A 7-minute literacy test administered to patients on the morning of their examinations determined that 40% had low literacy, about 20% had marginal literacy, and about 40% had adequate literacy.

Among those with low literacy, 63% had poor bowel preparation, compared with 12% of those patients with marginal or adequate literacy. Importantly, however, more than 80% of patients with low literacy said they had adhered to the bowel preparation instructions.

Just 5 of 78 patients with low literacy said they had difficulty reading in general, and only 8 said they had difficulty reading the bowel preparation instructions. "[This] was, for me, an eye-opener as to how difficult it is for us as physicians to really detect the literacy problem," Dr. Ghaoui said.

Although 40 million Americans—an estimated 26% of the population—have difficulty reading, "It's taboo. People don't talk about it," he said. In one study, nearly 70% of illiterate adults had not confided that fact to a spouse or child.

The issue of literacy is critically important in current protocols for colonoscopy preparation, which rely on written instructions. When colonoscopies cannot be completed or must be repeated because of poor bowel preparation, there is "a long list of consequences," he stressed, including patient inconvenience and time away from work, scheduling burdens at busy facilities, a waste of resources, and potentially delayed or missed diagnoses of colorectal cancer.

The odds ratios for predicting poor bowel preparation (after adjusting for age, gender, ethnic group, and language) were 12 for low literacy, 6 for eating dinner the night before the examination, and 5 for not taking bisacodyl. Other important predictors included eating lunch the previous day, and not finishing the polyethylene glycol solution. Receiving additional instructions about the preparation process from a physician or a nurse was somewhat protective, with an odds ratio of 0.5.

With use of the best predictive model in a logistic regression analysis, the odds ratio for low literacy was even higher, at 22, Dr. Ghaoui said.

He called for more research into how low literacy translates into poor preparation—whether the instructions themselves are misunderstood, or whether patients with low literacy do not understand the importance of the test itself or of adherence to the instructions.

Because patients do not volunteer the fact that they have low literacy, brief tools to measure literacy might be helpful for physicians to use in their practices, he added.

Finally, better methods of explaining colonoscopy preparation must be developed and tested, Dr. Ghaoui said. ■

Diabetes, CAD Linked to Increased Risk of Colorectal Adenomas

BY MARY ELLEN
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LOS ANGELES — The risk of developing colorectal adenomas is increased both in women with diabetes and in individuals with coronary artery disease, according to two studies presented at the annual Digestive Disease Week.

Postmenopausal women with type 2 diabetes mellitus who are not taking hormone therapy are at increased risk for colorectal adenomas and advanced adenomas, compared with women without the disease, said Dr. Jill E. Elwing of Washington Uni-

versity in St. Louis. She and her colleagues selected 100 women with type 2 diabetes and 500 nondiabetic women to undergo screening colonoscopy at an outpatient endoscopy center.

A total of 37% of diabetic women had any type of adenoma, compared with 24% of nondiabetics, and 14% of diabetic women had an advanced adenoma, compared with 6% of nondiabetic women. These differences between groups were statistically significant.

Obesity compounded the risk for diabetic women, Dr. Elwing reported. A total of 42% of obese diabetic women had any adeno-

ma, compared with 23% of the nonobese, nondiabetic women. Similarly, 19% of obese diabetic women had an advanced adenoma vs. 7% in the comparison group. In addition, diabetic women were more likely than nondiabetic women to have multiple adenomas and proximally located advanced adenomas.

The association between diabetes in women and colorectal adenomas and advanced adenomas was maintained even when researchers controlled for age, race, use of nonsteroidal anti-inflammatory drugs, and body mass index.

With confirmation of these

findings, professional societies should consider incorporating diabetes as a risk factor in screening guidelines for colorectal disease, Dr. Elwing said.

A separate study looking at risk factors for developing colorectal cancer found that patients with coronary artery disease (CAD) are at greater risk for developing colorectal adenomas or colorectal cancer than are patients without CAD.

These findings suggest that patients with CAD should be screened using colonoscopy, recommended the study's lead author, Dr. Annie On On Chan of the University of Hong Kong.

The researchers recruited 307 patients who had a coronary angiogram, underwent screening colonoscopy, and completed a questionnaire on risk factors.

Interim results show that about 46% of the study subjects had CAD. The patients with CAD had a higher incidence of adenomas and cancer than did those without CAD (30% vs. 19%). Nearly 17% of the CAD population had advanced lesions, compared with less than 7% of the patients without CAD. The researchers found five cases of colorectal cancer among the CAD patients but none among those without CAD, Dr. Chan said. ■