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## Patient Choice Increases Screening Adherence

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From the annual Digestive Disease Week

NEW ORLEANS — Patients given a choice between different screening methods are significantly more likely to follow through on colorectal cancer screening than are those told to undergo either colonoscopy or fecal occult blood testing.

"We usually assume that the presence of choices can paralyze people into indecision, and instead of making the choice, they defer," Dr. John M. Inadomi said at the annual Digestive Disease Week. "We were concerned that, in the case of colorectal screening, giving a choice of screening methods might actually lead to noncompliance."

Dr. Inadomi of the University of California, San Francisco, and his colleagues found just the opposite when they conducted a randomized trial on the issue with 1,000 patients at an average risk of colorectal cancer. The participants were randomized to one of three screening recommendations: fecal occult blood testing (FOBT), colonoscopy, or the individual patient's choice between the

two. The investigators then followed each group for 12 months to evaluate compliance with the screening.

The study was conducted in San Francisco, and the participants reflected the city's diverse population: 34% were Latino, 30% were Asian, 18% were black, 15% were white, and 3% were other: a total of 53% were women. The

**Major Finding:** Patients who were allowed to choose their colorectal screening method were significantly more likely to follow through with the test, with an adherence rate of 70%, than were those referred to only one method (adherence of 38% or 67%, depending on method).

**Data Source:** A randomized trial of 1,000 patients who were diverse in terms of language and race/ethnicity.

Disclosures: None reported.

investigators tried to remove as many barriers to health care adherence as possible by reducing or eliminating cost, providing rides, giving instructions for preparation in the patient's preferred language, allowing direct screening access without a gastroenterology referral, and limiting wait time to 2 weeks.

Overall, 65% of patients followed through on their recommended screening. But there were significant differences in adherence between the groups. Patients referred to colonoscopy alone had the lowest rate of adherence (38%), followed by those referred to fecal occult blood test-

ing (67%). The highest rate of adherence, 70%, was found for patients given a choice between colonoscopy and FOBT.

"Even though significantly more patients followed through on the fecal occult blood testing [compared with colonoscopy], the number was still significantly less than the 70% who were given the choice between the two methods," Dr. Inadomi said.

At baseline, patients also filled out a survey about their health beliefs. The investigators found that fears of the test results, procedure complications, the preparation and procedure, and of cancer in general significantly reduced adherence to screening. Patients were significantly more likely to follow through

on screening if they had good self-perceived health and believed that colorectal cancer screening could prevent cancer.

Dr. Inadomi noted that race/ethnicity and language also had an apparent impact on adherence. Asians and Latinos had significantly higher rates of compliance overall (73% and 70%, respectively) than did whites and blacks (55% and 56%). Different groups seemed to prefer different methods, he said. "Asians and Latinos assigned to fecal occult blood testing adhered more frequently than did whites and blacks. Conversely, whites seemed to prefer colonoscopy," with a 52% adherence rate, compared with 27% in the nonwhite groups.

Language was a factor as well. "Patients with limited English proficiency actually had greater adherence," as they received their instructions in their native language. "In a multivariate model, race and ethnicity fell out, and language was the only significant factor that remained," Dr. Inadomi said. "In a system where access is provided and language is not a barrier, we see that immigrants have the tools to access the health care system in the same way they would in their own country."

## Inflammatory Bowel Disease Tied to Pancreatic Cancer Risk

NEW ORLEANS — Patients with inflammatory bowel disease were significantly more likely than the general population to develop pancreatic cancer, in the first prospective study to assess standardized incidence rates of both disorders.

Men with ulcerative colitis were at a particularly high risk—more than 6 times as likely to develop pancreatic cancer than were men without ulcerative colitis, Dr. Jason Schwartz said at the annual Digestive Disease Week.

If the data are confirmed in larger studies, they may justify populationbased screening for patients with either ulcerative colitis or Crohn's disease—particularly men. "It's too early right now to make screening recommendations, but providers should keep in mind that males with ulcerative colitis may harbor an inclination to develop pancreatic cancer," said Dr. Schwartz, assistant professor of surgery at the University of Utah, Salt Lake City. "This study may open the door to screening for pancreatic cancer in patients with inflammatory bowel disease, similar to what we now do for patients with IBD, who have an increased risk of colon cancer.'

Dr. Schwartz and his colleagues extracted 10-year data on inflammatory bowel disease and pancreatic cancer cases in Utah from the University of Utah Health Care System and the Utah Cancer Registry in conjunction with the NCI's Surveillance, Epidemiology and End Results (SEER) database.

From 1996 to 2006, there were 2,877 adult cases of inflammatory disease in the database. The investigators matched these cases to pancreatic cancer cases in the cancer registry and the Utah population database. "We felt there would be an association, but we were surprised by the strength of it," Dr. Schwartz said.

The researchers found 12 cases with both IBD and pancreatic cancer. After excluding five cases—because the cancer was diagnosed before the IBD—the association remained strong. "The expected rate of pancreatic cancer in Utah is 4/100,000 person-years," he said. "The association that we saw worked out to be 7/15,000 person-years."

All of these cases occurred in men with ulcerative colitis. So while the overall risk for pancreatic cancer in any patient with either ulcerative colitis or Crohn's disease was 3.4, men with ulcerative colitis were 6.2 times more likely to develop the cancer than were men without ulcerative colitis.

The pathologic connection between IBD and pancreatic cancer has not been fully explored, but repeated bouts of inflammation probably are involved, he said. "The intestines also become more permeable and allow bacteria to come into contact with the pancreas and liver," Dr. Schwartz said. There could also be a genetic link between the two conditions, but more research is needed.

**Disclosures:** Dr. Schwartz had no financial disclosures relevant to the study.

## Obesity at Young Age Tied to Higher Colon Adenoma Risk

NEW ORLEANS — Adults who have been overweight since early adulthood are nearly twice as likely to have colon adenomas as those with a history of normal weight.

The findings reinforce the benefit of maintaining a healthy weight throughout life, Dr. Fritz Francois of New York University said in a written statement.

"Our conclusions suggest that the



Adenomas were significantly more common among patients who had been overweight or obese since age 10.

MR. FAGAN

chronicity of obesity is a significant risk factor for developing colon cancer. Given the continued rise in early-onset obesity, especially in minority populations, there is a need for interventions and lifestyle modifications earlier in life."

The researchers conducted a prospective study of 1,865 patients referred for a screening colonoscopy, said Ian Fagan, a fourth-year medical student who presented the findings at the meeting. Their mean age was 57 years. Body mass index (BMI) was normal in 38%, whereas 39% were overweight and 23% were obese. A total of 12% were current smokers.

The patients provided information allowing the researchers to estimate their

BMI and waist circumference at age 10 and age 20. The investigators compared the past weights to the finding of any adenoma, including advanced neoplasia, during the colonoscopy.

The subjects were divided into three groups: those who had normal weights at age 20 and at present, those who had a normal weight at 20 and were now overweight or obese, and those who had been overweight or obese since age 20.

"Race and ethnicity had a significant impact on weight change," Mr. Fagan said. Sixty-one percent of Hispanics fell into the group that changed from normal weight to overweight or obese, as well as 50% of blacks, 46% of whites, and 7% of Asians.

Adenomas were significantly more common among patients who had been overweight or obese since age 10 (at a rate of 27%) and among those who went from normal weight to overweight (19%), compared with those who had maintained a normal weight (13%).

After controlling for age, gender, current BMI, U.S. birth, and red meat consumption, the investigators found that becoming overweight or obese in early adulthood almost doubled the risk of an adenoma on screening colonoscopy (odds ratio 1.8). Mr. Fagan did not present a risk analysis for subjects who had been overweight since childhood, saying that the number of subjects in that group was not sufficient.

**Disclosures:** Neither Mr. Fagan nor Dr. François had financial conflicts.