

Contact: Stephanie Berger  
212-305-4372  
sb2247@columbia.edu

## **Prevalence of Pre-Cancerous Masses in the Colon Same in Patients in their 40s and 50s**

**--New findings point to potential to begin colon cancer screening at a younger age --**

June 9, 2008 -- The prevalence of pre-cancerous masses in the colon is the same for average-risk patients who are 40 to 49 years of age and those who are 50 to 59 years of age, according to a study published in the current issue of *Gastroenterology*, the journal of the American Gastroenterological Association (AGA) Institute. In comparing colonoscopy results by age group, the team of scientists found that in the 40 to 49 age group, 79 patients, or 14 percent, had one or more adenoma or pre-cancerous growth. Similarly, the 50 to 59 age group had 56 patients, or 16 percent, with one or more adenoma.

Data from a centralized digital medical record system were analyzed by a team of researchers led by Alfred I. Neugut, MD, PhD, professor of epidemiology at the Mailman School of Public Health and professor of medicine at Columbia University College of Physicians and Surgeons and head of cancer prevention and control for the Herbert Irving Comprehensive Cancer Center, Columbia University Medical Center and New York-Presbyterian Hospital, and Andrew Rundle, PhD, assistant professor of epidemiology at the Mailman School of Public Health. The researchers reviewed 553 screening colonoscopies for patients ages 40 to 49 and 352 screening colonoscopies for patients ages 50 to 59. Individuals who could be deemed "high-risk" because of a family history of colon cancer, a personal history of inflammatory bowel disease, or any malignancy other than skin cancer were excluded from the sample.

Currently, standard protocol recommends screening patients age 50 and over for colon cancer based on the increasing incidence of colon cancer at that age. Because observational studies have shown that it takes a decade for adenomas to develop and progress to cancer, the increase in colon cancer prevalence in the over-50 age group, in fact, may be the result of undetected adenomas that were present in the individuals in their 40s.

"Our results support the theory that adenomas, which later may lead to cancer, form at an age earlier than we screen for today," said Dr. Neugut. "With this information in hand, it is logical to think that if we were to recommend screening for colon cancer at age 40, we may be able to decrease its prevalence even further and save more people from having to battle the disease."

Though the number of adenomas was relatively similar in the two age groups, there was a doubling in the prevalence of abnormal cell growth, or advanced neoplasia, in the 50 to 59 age group versus the 40 to 49 age group. While not statistically significant, in the 40 to 49 age group,

11 patients, or two percent, had an advanced neoplasm, and in the 50 to 59 age group, 13 patients, or four percent, had an advanced neoplasm.

"What this implies is that while the number of pre-cancerous growths is very similar in both age groups, there is a progression toward cancer in older patients," noted Dr. Rundle. "Abnormal cell growth is a warning sign of cancer, so the fact that there's an increase in advanced neoplasia in the older age group is in line with the increased colon cancer incidence we see in individuals over the age of 50. Detecting adenomas when patients are in their 40s could mean that we are able to drastically lower the prevalence of colorectal cancer. Additional studies need to be done to look specifically at this possibility and the cost-benefit of beginning screening at an earlier age."

Only one prior study has investigated the prevalence of colorectal adenomas in average-risk individuals aged 40 to 49 years in the U.S., and it reports very similar findings: an adenoma prevalence of 11 percent in the age group.