

Research highlights training to improve colorectal cancer detection

October 31 2011

The first study to assess improvements in detection of pre-cancerous growths in the colon through intensive physician training was presented at the American College of Gastroenterology's 76th Annual Scientific Meeting, where colorectal cancer detection was an important focus of the scientific presentations. Other studies highlighted the relationship between the location of pre-cancerous growths in the colon and the development of colorectal cancer in high risk populations, as well as detection rates for pre-cancerous growths in the upper reaches of the colon.

Highlights of Colorectal Cancer Research from the ACG Annual Scientific Meeting

Investigators from the Mayo Clinic in Jacksonville, FL reported results of a prospective study of the impact of training for physicians who perform colorectal [cancer screening](#) which revealed that detection of pre-cancerous growths can be improved significantly with structured endoscopist training, according to research conducted by Susan T. Coe, M.D. and Michael B. Wallace, M.D., FACG.

An analysis from the University of Connecticut Health Center pointed to the importance of detecting pre-cancerous changes in the far reaches of the colon, because research suggests that cancers that develop there may be more aggressive. Joseph C. Anderson, M.D., FACG and colleagues identified several high-risk sub-groups, including Non-Hispanic Blacks,

females and patients over age 60, based on an analysis of over half a million patients with colorectal [cancer](#).

Researchers at the Mayo Clinic in Scottsdale, AZ looked at the rates of adenoma and polyp detection in various anatomic segments of the colon. An analysis of 1921 patients who underwent colonoscopy by Erika Boroff, M.D. and other colleagues, including Jonathan A. Leighton, M.D., FACG and Francisco C. Ramirez, M.D., FACG revealed significant differences in the ratio of [adenomas](#) to polyps in the proximal colon (upper colon) and the distal colon (lower colon). The proximal colon had a significantly higher adenoma detection rate and higher mean adenoma rate per patient compared to findings from colonoscopy in the distal colon.

"A Randomized Controlled Trial of an Endoscopic Quality Improvement Program (EQUIP) Results in Improved Detection of Colorectal Adenomas"

Investigators at the Mayo Clinic in Jacksonville, FL first assessed baseline adenoma detection rates for 15 endoscopists, half of whom were then randomly assigned to a training intervention, EQUIP, that also consisted of monthly personal feedback on adenoma detection rate, withdrawal of the colonoscope, and the average detection rate for the group.

The 15 endoscopists in the trial completed 1200 colonoscopies. In the Phase I baseline assessment, the overall adenoma detection rate was 36 percent for both the EQUIP-trained group and the untrained group of endoscopists. In Phase II, the endoscopists randomized to training had an overall increase in adenoma detection rate to 47 percent, whereas the adenoma detection rate in the untrained group remained unchanged at 35 percent.

"This is the first study to prospectively show that adenoma detection rate can be significantly improved through an intensive structured endoscopist training program," commented Dr. Wallace. Ultimately, this research aims to improve the effectiveness of colon cancer screening through improved detection and classification of colorectal polyps.

According to Dr. Wallace, screening colonoscopy has largely been credited for the rapid decline observed in both newly diagnosed colorectal cancers and colorectal cancer related deaths between 1998 and 2005. Despite this decline, colorectal cancer has been projected to rank third in newly diagnosed cancers and in causes of cancer related death for both men and women in 2011. The performing endoscopist, independent of patient-related factors, has been shown to strongly influence adenoma detection.

"Increased Frequency of Proximal Colon Cancer among Non-Hispanic Blacks, Females and Patients Age 60 and Older"

Researchers at the University of Connecticut Health Center looked at over a half million patients in the National Cancer Institute's SEER database diagnosed with colorectal cancer between 1973 and 2007 to identify trends in proximal colorectal cancer (cancer located higher up in the colon) and looked for trends by race/ethnicity, gender, age and geographic region.

Overall, the proportion of proximal colorectal cancers relative to overall colorectal cancers increased from 35.6 percent in 1973-1977 to 42.2 percent in 2003-2007. Compared to Non-Hispanic Whites, the likelihood of proximal colorectal tumors was substantially higher among Non-Hispanic Blacks. The analysis revealed that females were about 40 percent more likely to have proximal colorectal tumors compared to

males, and patients over age 60 were about 50 percent more likely to have these lesions compared to younger patients.

"Cancer of the proximal colon have lagged behind distal and rectal subsites in terms of reduction in incidence over the last few decades, which is of concern given the more aggressive nature of these tumors," concluded the investigators from the University of Connecticut.

"Anatomical Distribution of Polyps and Adenomas and its Impact on Polyp- and Adenoma-Detection Rates"

As part of a quality improvement program, quality indicators of colonoscopy were evaluated by researchers at the Mayo Clinic in Scottsdale, AZ, who in this study looked at the rate of polyp detection and adenoma detection by various anatomical segments of the colon. Researchers Erika Boroff, M.D., Gurudu Suryakanth, M.D., Jonathan A. Leighton, M.D., FACG, and Francisco C. Ramirez, M.D., FACG reported results of an analysis of 1921 patients who underwent colonoscopy by 20 endoscopists.

The overall polyp detection rate in the study was 48.8 percent and the adenoma detection rate was 30.9 percent. The researchers looked at the mean polyp per patient (MPP) and the mean adenomas per patient (MAP) and found that the ratio of adenomas-to-polyps detected decreased progressively from the cecum, an anatomical landmark at the upper end of the colon, toward the rectum. The proximal colon (the higher up reaches of the colon), had a significantly higher adenoma detection rate and higher mean adenoma rate per patient compared to findings from colonoscopy in the distal colon. "Polyp-related quality indicators are not generalizable for the entire colon as they are currently portrayed. There are differences between the different colonic segments:

right and proximal colon in particular, when compared to the left colon," explained Dr. Ramirez, one of the Mayo investigators.

Provided by American College of Gastroenterology

Citation: Research highlights training to improve colorectal cancer detection (2011, October 31)
retrieved 6 May 2024 from

<https://medicalxpress.com/news/2011-10-highlights-colorectal-cancer.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--