

Physician ALERT

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for the medical community*

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SCREENING FOR COLORECTAL NEOPLASIA.

In our practice, over 50% of our professional practice time is dedicated to the prevention, screening, diagnosis and treatment of colon and rectal cancer.

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Colorectal cancer is an enormous healthcare problem in the United States. In our practice, over 50% of our professional practice time is dedicated to the prevention, screening, diagnosis and treatment of this disease.

In the United States, the current cumulative lifetime probability of developing colorectal cancer is approximately 6%, with the risk of dying from colorectal cancer being 2%-3%. Despite the large number of patients with this disease, there is an increasing body of evidence indicating gradual decline in mortality. We feel strongly that this trend is, in large part, a reflection of early detection as screening measures become more widely applied with the removal of precancerous polyps.

A relatively high proportion of carcinomas detected by fecal occult blood tests are early-stage lesions, although unfortunately the number of false negative tests are also high. Fecal occult blood testing remains very insensitive to the detection of adenomas, and some authors have suggested that the true benefit of fecal occult blood testing results from the chance selection of

patients for colonoscopies. Nevertheless, it remains an accepted standard screening modality for colorectal cancers.

Flexible sigmoidoscopy is an effective method for screening and one we employ frequently in our office practice. Typically, we do not utilize any formal bowel prep for the flexible sigmoidoscopy other than two enemas given by our nurse approximately 15 minutes before the procedure. We typically complete the test in less than five minutes and do not routinely use sedation for this. Though sigmoidoscopy is very sensitive for detecting adenomatous polyps, its obvious shortcoming is that it only visualizes the distal (left) colon.

Because the incidence of adenomas and carcinomas in the proximal (right) colon has increased, some authors advocate colonoscopy as a potential screening modality. Recently (July 2000) we participated in a study published in the *New England Journal of Medicine* noting a higher than anticipated number of proximal neoplasms in those patients without distal colonic



pathology. This study adds further support to an increasing body of evidence suggesting that colonoscopy be considered as a screening modality for colorectal cancer. Admittedly, there are potential hurdles that remain in utilizing colonoscopy for all patients, included cost, availability, patient acceptance and the potential (albeit extremely low) complications from this procedure.

In a recent study, Rex, et al. performed colonoscopy in 210 asymptomatic individuals between 50 and 75 years of age with no known risk factors for colorectal neoplasms and a negative fecal occult blood test. Significant adenomas (1 cm or more in diameter) were found in 25% of patients as well as two colon cancers.

The justification for the use of colonoscopy as a screening modality rests in the theory of the pathogenesis of colorectal cancers. Adenomatous polyps play a pivotal role in this polyp-to-cancer sequence. It is known that greater than 90% of all colorectal cancers start out as adenomatous polyps. The most attractive aspect of the use of colonoscopy for screening is that it is also therapeutic by removing the colonic polyps. This avoids subsequent procedures, as is necessary when barium enemas are used. Certainly, any program for colonoscopy "screening" would have to be based on certain assumptions about the rate of growth of polyps and the length of time required for malignant transformation. A number of studies estimate that it takes an average of five to seven years for transformation of a 1 cm adenoma to colon carcinoma. Thus, colonoscopic polypectomies could prevent cancer,

even if screening intervals were somewhat prolonged.

Virtual colonoscopy is also showing some potential promise as an effective screening tool. Combining the use of rapid helical CT with computer software capable of rendering images of the whole colon, this method is used as a conventional workstation and a dynamic display of images to allow a radiologist to conduct a virtual examination of the colon, simulating the way an endoscopist views the colon. However, the technology continues to be scrutinized, both because of sensitivity and specificity issues as well as cost. At the present time, virtual colonoscopy remains out of the reach of current clinical practice.

In conclusion, utilizing colonoscopy as a screening modality in asymptomatic average-risk patients remains a hot topic for debate. The literature makes an increasingly strong argument that for patients with an increased risk of colon cancer (family history of colon cancer, personal history of colonic polyps, history of inflammatory bowel disease or personal history of breast, ovarian or uterine cancer), utilizing a colonoscopy offers them the most accurate, complete exam, which is both diagnostic and frequently therapeutic. Patients at average risk should be at least considered for screening with colonoscopy or at a minimum should undergo a flexible sigmoidoscopy and fecal occult blood testing. For more information about our services, contact us at (317) 834-2020, or visit us online at www.kendrickcenter.com.

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