The Medical Minute: Family tree one factor in colorectal cancer risk

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March is National Colorectal Cancer Awareness Month. In 2010, according to the American Cancer Society, there were more than 142,000 new cases of colorectal cancer in the United States and over 51,000 people died from the disease. Overall, the lifetime risk for developing colorectal cancer is approximately one in 20, or 5 percent, of men and women in the general population.

The good news is that colorectal cancer is preventable. Routine screening, beginning at 50 years of age for the general population, can identify abnormal growths in the colon and rectum, and by removing these so-called polyps, can prevent colorectal cancer. Screening can also detect colorectal cancer, if it has already developed, at an earlier, more curable stage. Unfortunately, the bad news is that an estimated 41.8 million average-risk individuals aged 50 or older have not been screened for colorectal cancer.

Certain individuals in the general population have a much higher risk to develop colorectal cancer. Factors that increase a person's risk to develop colorectal cancer include getting older, a prior history of colorectal polyps, inflammatory bowel disease, such as Crohn's or ulcerative colitis, and lifestyle habits, such as a high-fat, low-fiber diet with an excess of red and processed meats, obesity, smoking, heavy alcohol use, and a lack of regular physical activity. In some individuals, their family history may represent the most significant risk factor.

Approximately 75 percent of patients with colorectal cancer have sporadic disease with the remaining 25 percent having a positive family history, suggesting a shared genetic or environmental etiology. Fortunately, only five to six percent of colorectal cancer overall is felt to be hereditary, such that a mistake or mutation in a single gene puts certain family members at much higher risk to develop colorectal cancer, and potentially other cancers as well.

Lynch syndrome, previously referred to as hereditary non-polyposis colorectal cancer or HNPCC, represents the most common hereditary cause of colorectal cancer. Approximately 1 in 400 to 1 in 500 individuals in the general population are estimated to have Lynch syndrome. Knowledge, as they say, in this condition, is power. Not only should individuals with Lynch syndrome start their colonoscopies earlier (at 20-25 years of age) and have them more frequently (every 1-2 years), they should also be screened for stomach and small intestine cancer, urinary tract cancers involving the kidneys and ureters, and the hepatobiliary tract, including the gallbladder, bile duct, pancreas and liver. Further, women with Lynch syndrome should be aware of the increased risk for both endometrial and ovarian cancer and offered the option of prophylactic surgery following childbearing.

Red flags in a person's personal or family history that may indicate an increased risk for Lynch syndrome include colorectal or endometrial cancer under 50 years of age, two or more Lynch-associated cancers in the same person, or multiple relatives with Lynch-associated cancers. Likewise, an excessive number of precancerous colorectal polyps can be a red flag for not only Lynch syndrome, but also a less common hereditary condition called familial adenomatous polyposis (FAP). If you or your family members have any of these red flags, you may want to consider the option of genetic counseling and testing.

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