MINC GENE SCENE

March is Colorectal Cancer Awareness Month

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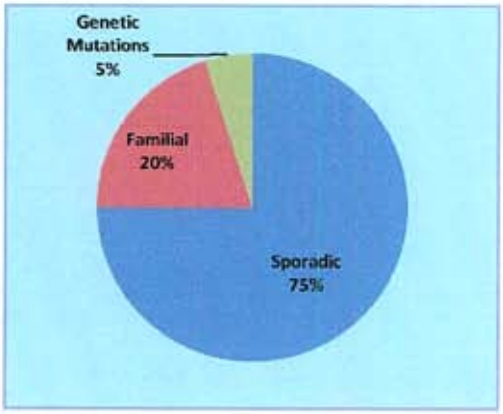
Colorectal cancer (CRC) is the third most commonly diagnosed cancer in both men and women. The lifetime risk of developing colorectal cancer is about 1 in 20. Approximately 75 percent of colorectal cancer is sporadic with no evidence of an inherited component. Undiscovered genes and background genetic factors in combination with non genetic factors, such as a shared environment, contribute to the development of familial colorectal cancer in 20 percent of patients. Genetic mutations are estimated to account for approximately 5 percent of colorectal cancer cases overall.



Who should consider genetic testing for CRC?

An individual who has at least one of the following traits:

- Strong family history of three or more colorectal cancers affecting two or more generations
- Personal or family history of colorectal cancer diagnosed before 50 years of age
- Family history with known hereditary conditions:
  - Familial Adenomatous Polyposis (FAP) – less than 1 percent of total CRC
  - Lynch Syndrome, also known as Hereditary Non-polyposis Colon Cancer (HNPCC), – 2 to 3 percent of total CRC
  - Juvenile Polyposis Syndrome – less than 1 percent of CRC
  - MYH associated polyposis syndrome – less than 1 percent of total CRC
  - Puetz-Jegher's Syndrome (PJS)
  - Multiple polyps in the colon, rectum or the rest of the gastrointestinal tract
  - Your physician believes there is a possible hereditary component to your colorectal cancer
  - Certain patterns of cancer in a family in addition to CRC (endometrial/uterine, ovarian, gastric, gastrointestinal, or urogenital)

Genetic testing for CRC can:

1. Identify pre-symptomatic individuals at high risk for cancer due to a hereditary cancer syndrome.
2. Allow for targeted screening and other risk reduction options (prophylactic surgery) based on genetic risk, and in some cases, drastically reduce the risk of cancer.
3. Be offered to anyone who has a family or medical history suspicious for certain hereditary cancer syndromes.

To hear about a real life journey to a diagnosis of Lynch syndrome visit https://www.akronchildrens.org/cms/genetic_center/ and click on the video titled Meet Jill: Genetic Testing.

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Competencies:

1. Demonstrates an understanding of the relationship of genetics and genomics to health, prevention, screening, diagnostics, prognostics, selection of treatment, and monitoring of treatment effectiveness.
2. Critically analyzes the history and physical assessment findings for genetic, environmental, and genomic influences and risk factors.

References

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