

Colon Cancer: Prevention, Screening, and Treatment Interventions

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Introduction

Colon cancer ranks as the third most common cause of cancer-related deaths in the United States (Biller & Schrag, 2023, p.670). It is a significant public health concern, affecting thousands of individuals every year. The disease occurs when malignant cells develop in the tissues of the colon, often beginning as benign polyps that can progress into cancer over time. Various factors contribute to the development of colon cancer, including genetics, lifestyle choices, and underlying risk factors. While colon cancer is more common in men over the age of 40, recent trends indicate an increasing incidence rate in younger adults (Brown, 2023). Early detection through laboratory tests, screenings, and lifestyle modifications can significantly improve prognosis and enhance the quality of life for those affected by the disease.

Statement of problem

Failing to detect and treat colon cancer can lead to serious health risks and complications. Adenocarcinoma is the most common type of colon cancer cell mutation, these cells line intestinal walls and release mucus, digestive enzymes, and other fluids. It is advised for people suspected of having colon cancer to be tested through a microsatellite test which is a type of molecular profiling to determine the best-targeted treatment (Shin, Giancotti, Rustgi, 2023). The disease can result from microsatellite instability and chromosomal instability, leading to unchecked cell growth in the colon due to faulty mismatching, insertion, and deletion of tumorous cells (Biller & Schrag, 2023, p.670). Unfortunately, a lack of screening and education in under-educated communities contributes to late-stage diagnoses, reducing the likelihood of successful treatment due to high metastasis rates.

Risk factors such as smoking, hypertension, diabetes, and obesity further increase an individual's risk of developing colon cancer. Additionally, genetic predispositions play a crucial role in individuals who have a family history of colorectal cancer facing higher susceptibility rates. It is commonly found that people who have colon cancer have also tested positive for Lynch syndrome, which is a genetic mutation that prematurely predisposes individuals to colorectal, and endometrial cancer cells under 50 years old (Biller & Schrag, 2023, p.2). Given its growing incidence among younger populations, increased awareness, and preventive measures are necessary to address this emerging concern.

Colon cancer accounts for 1.8 million new cancer cases annually and is responsible for 850,000 cancer-related death cells (Biller & Schrag, 2023, p.2). Screening can identify precancerous polyps before they develop into malignancies. Research also suggests that dietary interventions, like consuming prebiotics and probiotics, may help prevent or reverse disease progression (Dahiya & Nigam, 2022). If left untreated, colon cancer presents significant challenges for both patients and the healthcare community. The demand for advanced treatments, including surgical and palliative care, increases, placing a strain on healthcare resources. Additionally, the mental and physical stress experienced by patients and their families emphasizes the necessity of effective prevention and treatment strategies.

Risk Reduction and Treatment of Problem

Preventative strategies play a critical role in reducing the incidence rates of colon cancer. The American Cancer Society recommends that African Americans begin routine screening at age 45 due to their increased risk of developing colon cancer (American Cancer Society, 2024). Lifestyle changes, such as maintaining a healthy diet, engaging in regular physical activity, and

smoking cessation, can also help lower the likelihood of developing colon cancer. Genetic testing for biomarkers is also a valuable tool in identifying individuals at high risk, allowing for personalized preventive measures. Various screening methods are available to detect colon cancer at an early stage. Preferred diagnostics for colon cancer include Flexible Sigmoidoscopy, the insertion of a sigmoidoscope to examine the colon, a Colonoscopy which is the preferred diagnostic, and Stool DNA test, which the client may complete at home. Other diagnostic methods include biopsy, Fecal Immunochemical Test (FIT), and the Guaiac test. Both the Fecal Occult Blood Test (FOBT) and FIT are non-invasive screenings designed to detect hidden blood in the stool, which may indicate colorectal cancer (Synder, 2025, slide 86). Despite the effectiveness of these methods, screening in certain populations due to a lack of awareness and accessibility is easier said than done. The treatment approach for colon cancer depends on the stage of the disease. Surgical interventions such as colectomy and polypectomy are effective for early-stage cancers (Stages I-III). In more advanced cases, chemotherapy and radiation therapy may be necessary to target malignant cells. Immunotherapy is also used in treating cancers by utilizing the body's immune system to fight cancer cells and has shown results in specific patient populations (Biller & Schrag, 2023, p.3).

Timely and appropriate treatment not only improves survival rates but also enhances patient's overall quality of life. By integrating advanced therapeutic techniques with early detection efforts, healthcare providers can significantly reduce the burden of colon cancer on individuals and the healthcare system. Healthcare professionals play a crucial role in diagnosing early-stage colon cancer, educating patients about the disease, and providing access to effective treatment options. By raising

awareness about risk factors, symptoms, and screening procedures, nurses and other healthcare providers can encourage patients to take proactive measures in managing their health. Providing credible resources and individualized treatment plans ensures that patients receive adequate care, encouraging more individuals to partake in routine screenings.

Teaching

Educating the public about colon cancer is essential for promoting early detection and prevention. A healthcare provider should be notified of the following findings, including, anorexia, abdominal cramping, dark tarry stool, bright red stool, ribbon-shaped stool, weight loss, and changes in bowel patterns (Brown, 2023). Teaching techniques such as group talks, one-on-one chats, and teach-back will reinforce important concepts to educate the community about colon cancer effectively. Pamphlets, screening questionnaires, and useful activities are examples of engaging instructional resources that will boost engagement and knowledge. To guarantee early detection and prevention, the significance of planning routine screenings including colonoscopy screening every 10 years after age 45 (Brown, 2023).

Conclusion

From a nursing perspective, understanding colon cancer is vital for delivering patient-centered care. Healthcare professionals must advocate for routine screenings, provide emotional and psychological support, and offer educational resources such as credible websites to educate patients. By increasing awareness and promoting preventive measures, the medical community can significantly reduce the incidence and mortality rates associated with colon cancer. Educating the public about this common yet preventable disease allows for a proactive approach

to one's health. Through continuous research and patient-centered, healthcare providers can make a lasting impact in the fight against colon cancer.

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