



Strategies for Detecting and Diagnosing Colorectal Cancer

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Description

Colorectal cancer remains a formidable health challenge, but advances in medical science and proactive screening strategies have significantly improved early detection and treatment outcomes. The strategies for detecting colorectal cancer, emphasizing the importance of early diagnosis and the evolving landscape of treatments available to patients. One of the most effective strategies for detecting colorectal cancer early is through screening programs. Common screening methods include colonoscopy, Fecal Occult Blood Tests (FOBT), Fecal Immunochemical Tests (FIT), and sigmoidoscopy. These tests can identify precancerous polyps or early-stage cancers, allowing for timely intervention.

Individuals with a family history of colorectal cancer or certain genetic syndromes may benefit from genetic testing. Identifying specific genetic mutations associated with colorectal cancer risk enables healthcare providers to tailor screening and surveillance recommendations for higher-risk individuals. Advanced imaging techniques, such as Computed Tomography (CT), Colonography (virtual colonoscopy) and Magnetic Resonance Imaging (MRI), provide detailed images of the colon and rectum. While not substitutes for colonoscopy in all cases, they can be valuable tools for patients who cannot undergo or prefer alternatives to traditional colonoscopy.

Ongoing studies in biomarkers, including blood tests that detect specific proteins or genetic changes associated with colorectal cancer, holds potential for non-invasive early detection. Identifying biomarkers can contribute to the development of less invasive screening methods. Surgery remains an essential component in the

treatment of colorectal cancer. Depending on the stage and location of the cancer, surgical options may include removal of polyps, local excision, colectomy, or in more advanced cases, removal of affected lymph nodes and adjacent tissues.

Colorectal cancer patients may undergo chemotherapy to target and kill cancer cells. It can be administered before surgery (neoadjuvant), after surgery (adjuvant), or as the primary treatment for metastatic disease. The choice of chemotherapy regimen depends on the cancer stage, type, and individual patient factors. Radiation therapy uses high-energy rays to destroy cancer cells or shrink tumors. It is often employed before surgery to reduce tumor size or after surgery to eliminate remaining cancer cells. In cases of rectal cancer, radiation therapy may be combined with chemotherapy for optimal results.

Targeted therapies focus on specific molecules involved in cancer growth. Medications like cetuximab and bevacizumab target proteins that promote cancer cell growth and blood vessel formation. These therapies are often used in conjunction with chemotherapy for advanced colorectal cancer. Immunotherapy harnesses the body's immune system to identify and destroy cancer cells. While currently more established in treating certain types of cancer, ongoing studies explore its potential application in colorectal cancer, particularly in combination with other treatment modalities.

Participation in clinical trials provides access to cutting-edge treatments and contributes to the advancement of colorectal cancer care. These trials explore new drugs, treatment combinations, and therapeutic approaches, providing hope for improved outcomes and reduced side effects. A holistic approach to colorectal cancer treatment goes beyond medical interventions, addressing the emotional and supportive needs of patients. Psychosocial support, nutritional counseling, and survivorship care plans contribute to the overall well-being of individuals on their cancer journey.

Conclusion

Early detection remains the linchpin in the successful management of colorectal cancer. Advances in screening technologies and the expanding array of treatment options underscore the progress made in the fight against this disease. By adopting a proactive stance towards screening, understanding risk factors, and embracing the latest in treatment modalities, individuals and healthcare professionals can work collaboratively to improve outcomes, enhance quality of life, and, ultimately, conquer colorectal cancer. Continued studies and a commitment to comprehensive care promise a future where colorectal cancer is not just treatable but preventable, further emphasizing the importance of awareness, education, and early intervention.

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