Predictive and prognostic markers in colorectal cancers

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Colorectal cancer (CRC) is one of the leading causes of cancer-related death in both men and women. The early and advanced CRC still remains a major health burden with a disease-specific morbidity and mortality worldwide. CRC can grow either inward towards the lumen of the colon or rectum and/or outward through the walls of these organs. Advanced disease can cause perforation of the bowel and lead to infection. Metastasis of the disease may occur to the lymph nodes, liver, lung, peritoneum, ovaries and brain. CRC has a complex pathogenesis, involving multiple sequential steps with accumulation of genetic alterations including gene mutations, epigenetic changes and gene amplification. Thus, the treatment of CRC has undergone a paradigm shift over the past decade due in part to a better understanding of the biology of disease and also development of newer drugs including biologic agents.

In the era of evidence based medicine, it is attractive to investigate the molecular pathways leading to colorectal cancer tumorogenesis, thus raising the possibility of identifying novel therapeutic targets. The selection of the most beneficial treatment regimens in CRC is hindered by a lack of predictive and prognostic markers. Histopathological examination of tumor material can also help to define prognosis further, using resection margins, grade of the tumor, vascular invasion and metastasis. Hence, research on markers that may be useful predictors of response to treatment and prognostic markers to determine the aggressiveness of the disease and the likelihood of recurrence after surgery would be beneficial. Accordingly, the identification of accurate and validated predictive and prognostic markers combined with an increasing arsenal of therapeutic agents will provide the clinician with the knowledge and the means of tailoring a targeted and effective therapy.

Biography

Vamseedhar Annam completed his DCP and MD degree in Pathology from Rajiv Gandhi University of Health Sciences. He has received honor and awards for innovative research works in cytopathology and histopathology. He is a distinguished Professor [Pathology] and Research Advisory Board Member at Mamata Medical College [NAAC accredited A grade Medical College] affiliated under Dr. N.T.R University of Health Sciences, Vijayawada. He has more than 40 publications in the form of original articles, review articles and case reports in the field of Oncology and Infectious diseases in various indexed journals like Journal of Gastrointestinal Cancer, Indian Journal of Cancer, Cytojournal, Indian Journal of Pathology & Microbiology, Journal of Biomedical Sciences, etc. Currently, he is working on predictive and prognostic markers in colorectal cancers.

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