

عنوان مقاله:

A review on the role of probiotics in preventing and treating colorectal cancer

محل انتشار:

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نویسندگان:

ساسان زندی اصفهان - Clinical Research Development Center, Najafabad Branch, Islamic Azad University, Najafabad, Iran

محمد امیر شریف آبادی - Clinical Research Development Center, Najafabad Branch, Islamic Azad University, Najafabad, Iran

رامتین اکبری - Clinical Research Development Center, Najafabad Branch, Islamic Azad University, Najafabad, Iran

خلاصه مقاله:

Colorectal cancer is acknowledged as a prevalent and highly lethal malignancy, underlined by its epidemiological significance and mortality rates. Contributory factors encompass a spectrum of determinants, notably encompassing suboptimal dietary habits and disruptions in the equilibrium of the intestinal microbiota. Probiotics, integral constituents of the intestinal microflora, exert a constructive influence on many gastrointestinal afflictions, including irritable bowel syndrome, intestinal inflammation, diarrhea, and colorectal cancer. This brief review endeavors to meticulously examine the potential therapeutic implications of probiotics in preventing and treating colorectal cancer. Our investigative analyses have yielded substantive insights into the favorable impacts of probiotics on colorectal cancer prophylaxis and treatment. These benefits encompass the attenuation of inflammatory processes, augmentation of innate immune responses, mitigation of oxidative stress, modulation of apoptotic pathways, and the synthesis of short-chain fatty acids (SCFA). Furthermore, extant findings allude to the prospect of probiotics mitigating adverse effects associated with chemotherapy and radiation therapy. However, despite these promising indications, a dearth of comprehensive data underscores the necessity for further empirical investigations to substantiate and refine our understanding in this domain. Consequently, future studies are recommended to address existing gaps in knowledge and contribute to the advancement of therapeutic strategies in colorectal cancer management. Methods A systematic exploration of databases, including PubMed, Science Direct, and Scholar, utilizing keywords such as "Probiotics," "Colorectal cancer," and "Normal flora," yielded 10, 11, and 6 relevant articles, respectively. Subsequent refinement involved the exclusion of articles based on the year of compilation, topical irrelevance, reference to miscellaneous subjects, and studies with an exclusive focus on animal subjects. The identified articles underwent thorough review, culminating in the selection of 12 pertinent references for inclusion in this comprehensive review article.

کلمات کلیدی:

Probiotics , Colorectal cancer , Normal flora , Microbium

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