Exploring the Impact of Dietary Factors on Colorectal Cancer: A Review of Published Research

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Objectives

1. To review and analyze existing research on the relationship between dietary factors and colorectal cancer, with the aim of identifying key dietary elements that may influence colorectal cancer and providing an overview of the current state of knowledge in this field.

2. To assess the implications of diet interventions on colorectal cancer prevention and management.

Background

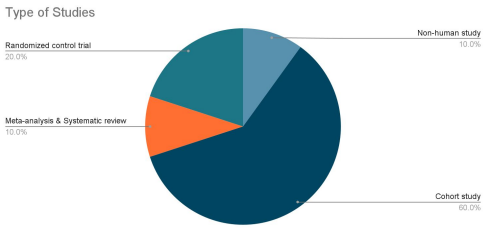
Colorectal cancer ranks among the most prevalent cancer types and is one of the leading causes of cancer-related mortality worldwide. The incidence and impact of colorectal cancer are influenced by a complex interplay of genetic, environmental, and lifestyle factors such as diet. Understanding the relationship between dietary factors and colorectal cancer is of paramount importance for public health and preventive medicine. This knowledge is not only of scientific interest but also holds practical implications as it may inform and help healthcare professionals and public health initiatives in designing effective strategies and contribute to the development of evidence-based recommendations for individuals and healthcare professionals.

Methods

Relevant studies were identified through systematic searches of reputable databases, including PubMed and UpToDate. The search encompassed articles published from the year 2000 to 2023, and specific keywords such as "colorectal cancer," "dietary factors," and related terms were used to locate potential studies. To ensure the selection of pertinent research, articles were included if they met the following criteria: articles or studies published in peer-reviewed journals that explored the relationship between dietary factors and colorectal cancer.

Results

- Western dietary pattern linked to worse disease-free survival in stage III colon cancer.
- Prudent dietary pattern has no significant associations with cancer recurrence or mortality.
- Higher dietary glycemic load and total carbohydrate intake associated with elevated risk of recurrence and mortality in stage III colon cancer patients.
- High processed meat dietary pattern linked to worsened disease-free survival and overall survival.
- Increased total fiber intake after diagnosis was associated with reduction colorectal cancer and overall mortality.
- Higher AHEI-2010 score correlates with lower overall mortality in colorectal cancer patients.



Discussion

- The link between the Western diet and lower disease-free survival emphasizes the importance of addressing the negative health consequences of this dietary regime. Moreover, the link between higher glycemic load and total carbohydrate intake and an elevated risk of recurrence and mortality underscores the pivotal role of energy balance factors in the progression of cancer.
- These findings accentuate the significance of considering dietary elements beyond the macronutrient content and embracing a more holistic approach to cancer prevention and management.
- The long term effect of dietary pattern on both disease-free and overall survival, especially in colon cancer patients, shed light on an opportunity to campaign public health initiatives promoting healthier dietary choices.
- It is imperative to recognize specific limitations present in the reviewed studies. Including heterogeneity across the studies and variations in dietary assessment methods may have influenced the results.

Conclusion

There is a clear need for more comprehensive studies in the field of dietary research. The studies should encompass unified questionnaires and follow-up protocols to provide more comprehensive understanding of participants' dietary habits before and after diagnosis.

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