Dietary patterns and colorectal cancer

Abstract

Background & aims: Dietary pattern and lifestyle have been reported to be important risk factors in the development of colorectal cancer (CRC). However, the mechanism of action of dietary factors in CRC disease is unclear. The aim of this study is the examination of several dietary choices and their potential association with the risk of developing CRC. Methods: Dietary data was collected from 220 subjects who were previously diagnosed with CRC, and 281 control subjects (matched by age, gender, occupation and marital status). The data was collected between January 2010 and December 2012, using interview-based questionnaires. Multivariate logistic regression was used to estimate the relationship between dietary choices and risk of developing colorectal cancer. Results: Factor analysis revealed three major dietary patterns. The first pattern we identified as the "Healthy Pattern", the second was identified as "High Sugar/High Tea Pattern" and the third as "Western Pattern". In the Healthy Pattern group we found a 10.54% variation in food intake, while the intake variation was 11.64% in the Western Pattern. After adjusting for confounding factors, the Western Pattern food choice was found to be significantly associated with an increased risk of developing CRC (OR = 1.88; 95% CI = 1.12-3.16). The results for the Healthy and High-Sugar/High Tea Patterns showed a decrease, but the statistic was not significant for the risk of CRC development. Conclusion: The Western Pattern of dietary choice was directly associated with CRC. The association between the dietary food choice in the Healthy and High-Sugar/High Tea Patterns and colorectal cancer needs further study in our Jordanian population. © 2016 Elsevier Ltd and European Society for Clinical Nutrition and Metabolism.