The relationship between cancer disease and nutrition

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Previous studies have reported a positive correlation of low-carbohydrate diets with weight loss, which is equally as effective as traditional low-calorie/low-fat diet. However, though the results of randomized clinical trials have reported similar results, they have also indicated an elevation of stress and inflammation markers. The alterations in these markers are a potential risk for cardiovascular diseases and cancer. This study seeks to investigate the long-term effect of low carbohydrate scores on the incidence of cancer in a prospective cohort study.

What did the researcher do?

The researchers used a population-based prospective cohort health intervention comprising of residents of the northern Swedish country of Vasterbotten age group 40 to 60 years. The secondary data were obtained from an ongoing intervention program that determined the number of potential health risk factors using a participant administered diet and lifestyle questionnaire. In this study, recruitment was about59% (Nilsson, Lena et. al, 2013). A 24hr hour recall validated food frequency questionnaire was administered and a blood sample for biomarkers analysis in the study participants. Prospective cancer cases were identified through a regional cancer registry. The researchers used a Cox regression analyses on low-carbohydrate high protein score and explored the role of metabolic risk profile, micronutrient levels and adequacy of energy intake on health. What did the researcher find?

There was a positive correlation between protein (primarily animal sources) and fat (both saturated and unsaturated) intake with increasing low carbohydrate high protein (LCHP) scores (Nilsson, Lena et. al, 2013).

However, there was no correlation between LCHP scores and cancer incidences except for non-dose dependent respiratory tract cancer in men.

The study reported an inverse association between the risk for colorectal cancer and intake of high saturated fat in women. Interestingly this association was positive in men (Nilsson, Lena et. al, 2013).

What was the significance of the research studies?

This study provided vital information on the safety of an increase in protein and reduction in carbohydrates. For determination of carbohydrate limitation effects further studies encircling a variety of macro nutrient consumption are necessary. This research decreases the risk of being bias as L. C. H. P is always in use (Nilsson, Lena et. al, 2013).

Answering the question: Does low-carbohydrate, high-protein diet score and risk of incident cancer?

LCHP scores did not significantly relate to cancer risk with the exception of a positive relationship for cancer of the respiratory act statistically noted in men. The study addressed the question.