Effects of Healthy Diet plus Peanut Consumption on Fasting Lipid Profile on HIV Infected Adults in Nyeri County, Kenya: Randomized Crossover Study

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Abstract

Introduction: Dyslipidemia is a key modifiable cardiovascular risk factor that is a major clinical feature of Human Immune deficiency Virus (HIV) infected patients in the present era of Highly active anti-retroviral therapy (HAART). In order to reduce the cardiovascular disease (CVD) risk, peanuts have been used since they are a rich source of fibre, α-tocopherol, copper, arginine, magnesium, folate and resveratrol. This research sought to find the impact of supplementing peanut and counselling on healthy diet on the fasting lipid profile of the HIV infected adults.

Method: The study adopted a randomized cross-over clinical trial. The participants who were eligible were randomly assigned to a two arm study. In Treatment I, the participants consumed 80g of peanuts plus their regular diet, while in treatment II, participants were given nutrition counselling on healthy diet plus 80g of peanut. Each treatment was given for 8 weeks with a washout period of six weeks in between treatments.

Results: There was a 3.07% decrease in total cholesterol in treatment I and 5.39% decrease in treatment II. There was also a 12.8% decrease in triglycerides in treatment 1 and 17% treatment II. There was a significant increase in HDL-C in treatment I and II at 7.38% and 5.1% respectively. LDL-C decrease was 5.56% in treatment I and 4.32% in treatment II. The estimated 10-year risk of contracting coronary heart disease reduced significantly (P =0.03) between baseline and end of study.

Conclusion: Regular consumption of peanuts improves the fasting lipid profile in HIV infected patients and therefore reduces the risk of getting coronary heart disease.

Keywords: Hyperlipidemia; Cardio vascular risk; Framingham’s risk score

Full text: https://jnfh.mums.ac.ir/article_18120.html