The effect of blackseed powder on blood glycaemia, blood lipidemia and body composition on adults at risk for cardiovascular diseases: A controlled, randomized, single blind, parallel-design study

Dana Alkhatib*

United Arab Emirates University, United Arab Emirates

Abstract

Recently 42% of the population in the United Arab Emirates (UAE) was diagnosed with metabolic syndrome (MetS) while the prevalence of the MetS in the Gulf Cooperation Council Countries (GCC) is 10-15% higher than in the most developed countries with generally higher prevalence rates for women. Recent studies proved that black seed may have an effect in reducing the metabolic syndrome factors as well as the cardiovascular diseases risk factors. More studies proved the anti-lipidemic and anti-glycemic effects of blackseed; therefore, it could be used for the management and prevention of the MetS problems. Objectives: To measure the effect of blackseed powder on fasting blood glucose (FBG) hemoglobin (Hb) hemoglobin A1c (HbA1c) triglycerides (TG) high density lipoprotein (HDL) low density lipoprotein (LDL) blood pressure (BP) waist circumference (WC) and body composition in participants at risk for cardiovascular diseases. Methodology: The study is a controlled randomized single blind parallel-design study. 60 participants who are at risk for cardiovascular diseases were randomly distributed into 2 treatment groups the first group was the blackseed powder group while the second group was a placebo-control (corn starch) group. 3 grams per day of each treatment was ingested by the participants for 12 weeks. Results: 51 participants continued the study from both groups (29 black seed 22 Placebo) there was a significant improvement in Cholesterol HDL LDL Triglyceride levels WC and the percent of body fat (P-value < 0.05). While it showed no effect on systolic and diastolic blood pressure levels and blood glucose levels for the black seed group compared to the placebo group. Conclusion: Black seed powder has a significant effect on improving Blood lipids levels in blood WC and percent of body fat while it showed no improvement in blood glucose levels as well as blood pressure levels for individuals at risk for CVD.

*Corresponding Author, Email: dana_khatib5@hotmail.com