

عنوان طرح: اثر ویتامین E و Alicine موجود در عصاره سیر بر تجمع رگه‌های چربی، سطح سرمی لیپیدها و لیپوپروتئینها در حضور رژیم پرکلسترول در خرگوش

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Abstract

Background: Elevated levels of total cholesterol (TC), triglyceride (TG), LDL and reduced level of HDL are major risk factors for atherosclerosis. Alicin is thought to be the principal bioactive compound present in aqueous garlic extract (GE) and it's capacity to reduce lipid content in arterial wall. Also vitamin E as a chelator and antioxidant can improve the cardiovascular function. The aim of this project is to study the effect of GE and vitamin E on plasma lipids and fatty streak-induced in hypercholesterolemia rabbits.

Materials & Methods: Thirty two male albino rabbits weight around 1880 g were divided to four groups and nutrient respectively:

- 1- High cholesterol diet (HCD) + vitamin E (100_{mg} Percase) + GE (0.8^{ml})
- 2- Cholesterol vitamin E (100 unite)
- 3- Cholesterol + GE (0.8^{ml})
- 4- Cholesterol

Their blood sample was taken before and after the study and plasma level of TC, TG, LDL, HDL and blood pressure was measured.

Results: Data are presented as mean \pm SE. The T-pair test was used for comparison between groups and the Duncan's test was used for intergroup comparison of mean values. The plasma level of TC, TG, LDL, HDL in all groups show significant increasing. No significant differences were found in blood pressure and animal's weight, after HCD and consumption of GE and vitamin E.

Discussion: Based on the results of this study, the consumption of GE with vitamin E has significant lowering effects on plasma level of TC, TG, and LDL. Our results showed that the consumption of HCD (1%) in 30 days, wasn't sufficient for creating hypertension. According to this study, we suggest that the administration of GE and vitamin E in rabbits is effective in decreasing plasma lipids and formation of fatty streak in arterial wall