

Effect Of Coffee Residue On Profile Of Serum Lipids In Mice *knockout* Apo E

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The coffee produces a large volume of liquid and solid residues, generating huge cost to the treatment and allocation of them. The residue of the fruit of the coffee is rich in macro and micro nutrients such as sugars, protein, Ca, Mg, P, N and K, become a means for inducing the growth and cultivation of fungi. The products of fermentation by *Monascus* have been used in food for animals and humans to reduce the levels of serum lipids, inhibiting the activity of HMG-CoA reductase, key enzyme in the biosynthesis of cholesterol. This study have a objective to evaluate the effect of residue coffee unfermented and fermented in the metabolism *Knockout* hyperlipidemic mice. Were used 30 *Knockout* mice for the Apo E gene, divided into different treatment groups. For the induction of hyperlipidemic animals received the atherogenic diet consisting of 1% cholesterol and 5% saturated fat. After treatment, animals were euthanized and blood collected and centrifuged at 7100xg for 15 minutes, to obtain the serum. The data were submitted to non-parametric analysis using the Mann Whitney test using the SigmaStat software, version 2.03. The results showed that there was a significant ($p < 0.01$) in levels of triacylglycerols and VLDL-c fraction of animals that receive the residue without fermentation. We can say that the inclusion of the residue in the diet of mices, helped in controlling the levels of serum lipids of these animals.

Keywords: Residue of coffee, Mice *knockout* Apo E, Hyperlipidemic.

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