The effect of Caffeine and Ephedrine combination on weight loss and lipid profile of New Zealand rabbits

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Worldwide obesity dramatically increased to more than double since 1980. In 2014 approximately 39% of adults aged 18 years and above were either overweight or obese. 42 million children under the age of 5 were overweight or obese in 2013. In Africa, obesity rates are rapidly increasing particularly in urban settings; which are considered as a major risk factor for type-2 diabetes, high blood pressure, heart attacks and a variety of cancers. As Obesity is preventable and reversible, finding a cheaper alternative anti-obesity drug will encourage obese people to reduce their weight and thereby prevent other complications. It is believed that Treatment with β adrenoreceptor agonists promotes fat loss and muscle growth. Ephedrine is a β-adrenoreceptor agonist; and works as weak central nervous system stimulant. It facilitates the liberation of energy from energy stores and in turn it increases their concentration in plasma. Caffeine has many pharmacological actions including: Central nervous system stimulation, diuresis, stimulation of cardiac muscle and relaxation of smooth muscles. We are going to study the effect of a combination of the two compounds with β agonistic properties in 16 well fed New Zealand rabbits. The evaluation will be through the measurement of grams of weight lost by rabbits during 1 month of administration of the combination of caffeine and ephedrine and the change in lipid profile. The expected results are reduction in body weight and reduced total cholesterol level.

Biography

Eiman Adam Mohamed is currently a graduate student in University of Medical Sciences and Technology, Faculty of Pharmacy, University of Medical Sciences and Technology, Sudan.

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