HYDROETHANOLIC EXTRACT OF *TAMARINDUS INDICA* SEEDS DECREASES BODY AND LIVER FAT IN OBESE MICE

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Obesity is a metabolic disorder related to several comorbidities. Recent studies found that the hydroethanolic extract of *Tamarindus indica* seeds inhibits the absorption of sugar and fat in the intestine. This work aimed to evaluate the effect of this extract on the fat weight and liver lipid profile of obese mice induced by a high-calorie diet. 21-day-old male Swiss mice were divided into control (standard diet) and cafeteria (high-calorie diet) groups. After certifying that cafeteria groups were glucose intolerant (90 days after the onset of high-calorie diet), some obese animals were orally treated (gavage) with the hydroethanolic extract of *T. indica* seeds (500 mg/Kg) for 30 days. The animals were euthanized, and the liver and the body fats were collected. Obese animals showed an increase in all fats' weight and liver lipid content. Treatment decreased epididymal (47%), retroperitoneal (55%), mesenteric (27%), and brown (14%) fat weight. In addition, the extract of *T indica* seed reduced the levels of triglycerides (42%) and total cholesterol (30%) in the liver. We conclude that hydroethanolic extract of *T. indica* seeds can be a potential preparation for treating and management of obesity.

Keywords: Obesity, High-Calorie Diet, Tamarind

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