Activity antiobesity of trypsin inhibitor tamarind (Tamarindus indica) seed

Ribeiro, J.A.N.C¹; Silva, P.F. S²; Rocha, M.G.F²; Serquiz, A.C¹; Sampaio, T.B.M³; Barbosa, P.B.B.M⁴; Oliveira, A.S¹; Santos, E.A¹; Morais, A.H.A²

DBQ¹, DNUT², UNP³, Dep. Microbiologia e Parasitologia⁴, UFRN, RN, Brasil

Obesity is reaching epidemic proportions. Thus, the use of biopharmaceuticals has been a new alternative in treatment of obesity. The main objective of this study was to evaluate the activity of a trypsin inhibitor present in the seed of tamarind on weight reduction in rats. The flour of seed was extracted in 50mM Tris-HCl, pH 7.5. With crude extract obtained was added ammonium sulfate 0-30%. After was added acetone (1:3) and submitted to an affinity chromatography of trypsin. The trypsin inhibitor tamarind (ITT - 100% inhibition for trypsin) was used in diets of Wistar rats during 14 days, administered by gavage (25mg/kg weight on 3 mL) being offered a standard diet and simultaneously other group had standard diet, another diet standard, receiving water by gavage (3 mL) and finally a group with aprotein diet. Groups with a standard diet, standard diet more gavage with water, food consumption remained similar, the average food intake 13.31 g and 11.74 g of chow and the group showed no protein an average 8.2 g and finally the group received inhibitor had a greatly reduced food intake when compared to other groups with an average of 5.8 g of feed. The weight gain of rats resulted in their food intake, where the control rats and control over gavage had a mean weight gain of 24.9 and 21 g, no protein group of 18.5 g and 7.16 g inhibitor group. Thus, notes that the inhibitor had a efficient activity reducing food intake and consequently, reducing weight gain.

Keywords: Obesity, Trypsin inhibitors, Tamarindus indica

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