

Evaluating of high fructose diet to induce hyperglycemia and its inflammatory complication in rats.

Abstract

It has been reported that a diet enriched in fructose would present animal models used to emulate diabetes mellitus type 2 in human. This study aimed to examine the effect of high fructose induction on the blood glucose, C-reactive protein, interleukin-6, interleukin-4 and body weight among high fructose diet-induced rats. The HFD was induced through drinking water in 21% (w/v) concentration among male Sprague-Dawley rats. The high fructose diet administration was unable to induce hyperglycemia, hypertriglyceridemia or any classic inflammatory markers. Also, no histological inflammation was observed. It was concluded that healthy Sprague-Dawley rats fed high fructose diet for 2.5 months could not develop signs of diabetes mellitus type 2.

Keyword: High fructose diet; Hyperglycemia; Inflammatory biomarkers; Sprague-dawley rats.