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ORIGINAL ARTICLE

Influences of crude extract of tea leaves, *Camellia sinensis*, on streptozotocin diabetic male albino mice

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Abstract Natural remedies from medicinal plants are considered to be effective and safe alternative treatment for diabetes mellitus. The aim of the present study was to investigate the hypoglycemic activity of the crude tea leaves extract on streptozotocin (STZ)-induced diabetic mice. The average body weight of animals with diabetes and their percentage changes of body weight gain after 15 and 30 days were significantly lower than that of the normal control mice. In diabetic mice, supplementation with tea leaves extract decreased the loss of body weight. After 15 and 30 days, significant increases in the levels of serum glucose, triglycerides, cholesterol, creatinine, urea, uric acid, glutamic pyruvic acid transaminase (GPT) and glutamic oxaloacetic acid transaminase (GOT) were noted in STZ-diabetic mice fed with normal diet. Also, the values of total protein in this group were statistically declined after 15 and 30 days. The levels of serum glucose and GPT were significantly elevated after 15 and 30 days in diabetic mice supplemented with tea leaves extract. Moreover, the level of serum GOT was notably increased after 30 days. Insignificant alterations were observed in the levels of serum triglycerides, cholesterol, total protein, creatinine, urea and uric acid in diabetic mice supplemented with tea leaves extract. Thus, the present results have shown that tea leaves extract has the antihyperglycemic, antihyperlipidemic, and antihyperproteinemic effects and consequently may alleviate liver and kidney damage associated with STZ-induced diabetes in mice.

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