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For further information about this article or if you need reprints, please contact:

Dr. Atef M. Al-Attar
Department of Biology,
Teachers College,
P.O. Box 15758,
Jeddah 21454,
Saudi Arabia

Tel: +966504629915

Effects of Ginger and Clove Oils on Some Physiological Parameters in Streptozotocin-Diabetic and Non-Diabetic Rats

¹Talal A. Zari and ²Atef M. Al-Attar

The effects of ginger and clove oils on some physiological parameters were examined in streptozotocin (STZ)-induced diabetic and non-diabetic male Wistar rats. STZ-induced diabetic rats given the control diet had the lowest body weight change, body temperature, thyroid-stimulating hormone (TSH), triiodothyronine (T₃) and thyroxine (T₄) levels after 2 weeks. Diabetic rats given diets containing the oils of ginger, clove, or mixture of them had higher body weight change, body temperature, TSH, T₃ and T₄ levels than diabetic rats given the control diet. No significant differences were observed in the above physiological parameters of normal rats fed on the examined oils when compared with those rats fed on the control diet after 2 weeks. There were no significant differences in body temperatures of diabetic rats fed on the diets containing the different oils when compared with normal rats fed on the same diets after 2 weeks. These data indicate that the diets containing the oils of ginger, clove, or mixture of them improve the examined physiological parameters in STZ-induced diabetic rats.

Key words: Streptozotocin, diabetes, ginger oil, clove oil, body weight, temperature, thyroid-stimulating hormone, triiodothyronine, thyroxine, rats