Short- and long-term effects of various Citrullus colocynthis seed extracts in normal and streptozotocin-induced diabetic rats

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Abstract/Résumé : In the light of previous findings, the major aim of the present study was to investigate the potential beneficial effects of various Citrullus colocynthis L. seed extracts on such variables as glucose tolerance, body weight gain, pancreas, liver, kidney, testis, epididymal fat and diaphragm muscle weight, as well as serum cholesterol, triglyceride, urea, creatinine, transaminases and alkaline phosphatase concentrations in an animal model of type-1 diabetes mellitus, i.e. streptozotocin-induced diabetic rats. For purpose of comparison, a comparable study was conducted in normal rats. Both the immediate and long-term effects of the plant extracts were assessed in rats injected daily, up to 3 weeks after the start of the experiments. The results of this study reinforce the view that both a crude aqueous extract and a n-butanol extract from the Citrullus colocynthis L. seeds may represent the best candidates in order to eventually identify a component suitable for the treatment of both type-1 and type-2 diabetic subjects.

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