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Influence of Mangiferin on Membrane Bound Phosphatases and Lysosomal Hydrolases in Streptozotocin Induced Diabetic Rats

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***SUMMARY*. The activities of membrane-bound ATPases and lysosomal hydrolases are altered in tissues of streptozotocin (STZ)-induced diabetic rats. Diabetes is stimulating the deterioration of membrane function and weakens the intracellular metabolism. The objective of the present study was to determine the effect of mangiferin, isolated from *Salacia chinensis* on membrane bound phosphatases and lysosomal hydrolases in the liver and kidney of STZ-induced diabetic rats. In our investigation, the levels of blood glucose and glycosylated haemoglobin were significantly increased in the diabetic rats. Moreover, membrane bound phosphatases and lysosomal hydrolases activities were ominously altered in the liver and kidney of STZ-induced diabetic rats. The treatment of mangiferin (40 mg/kg body weight up to 30 days) significantly brought back the activities of enzymes to near normal, when compared to the experimentally induced diabetic rats. Based on this findings, mangiferin have a substantial outcome on membrane bound phosphatases and lysosomal hydrolases in diabetic condition.**

KEY WORDS: Lysosomal hydrolases, Mangiferin, Membrane bound phosphatases, Natural products, *Salacia chinensis,* Streptozotocin.

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