Evaluation of Antioxidative, Antihyperglycemic and Antithyroidic properties of Cucurbita pepo Peel Extracts on renal disease in Mice.

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Objectives: The present investigation has been undertaken to explore the potential of Cucurbita pepo peel extract administration on thyroxine–induced hyperthyroidism, hyperglycemia and renal lipid peroxidation in male mice.

Methods: A pre-standardized dose of Levothyroxine (0.5 mg/kg) for 12 consecutive days was used to induce hyperthyroidism. The hyperthyroidic mice were then treated with 250 and 500 mg/kg of the test peel extract for 15 days.

Results: Administration of L-T4 elevated serum T3, T4 and glucose levels and the tissue LPO with a decrease in antioxidants. However, administration of test peel extract to hyperthyroid mice with 250 and 500 mg/kg decreased the thyroid hormones, glucose and renal lipid peroxidation. Also, the peel extract increased the antioxidant levels and improved the lipid profile.

Conclusions: Thus the present study clearly revealed that the peel extract has thyroid inhibitory, anti hyperglycemic, antioxidative and protected from the development of oxidative stress in the kidney and changes in its morphology.