Hypoglycemic Effect of Ethanolic Extract of *Moringa oleifera* Seed Coat in Diabetic Mice

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The patenting of a protocol for extraction of insulin-like proteins from plant sources has contributed to several studies that evaluate the antidiabetic potential of these macromolecules. The aim of this work was to realize an ethanolic extraction of *M. oleifera* seed coat, following a protocol for extraction of insulin-like proteins and, analyze its effects on glycemia of diabetic mice. The seed coat flour was submitted to an extraction with ethanol-sulfuric acid followed by precipitation with acetone. The dry pellet (100 mg/Kg), after exhaustive dialysis against distilled water, was administered intraperitoneally into alloxan-induced diabetic mice. Denaturing polyacrylamide gel electrophoresis of the extract showed the presence of several bands including some of low molecular mass, such as insulin. The blood glucose levels of the animals were measured 0, 1, 3 and 5 hours after dosing. The glycemia values in animals treated with *M. oleifera* seed coat at 3 and 5 hours were significantly lower (12 and 72%, respectively) than those of the control mice. The hypoglycemic effect of the ethanolic extract of *M. oleifera* seed coat points to the possibility of the presence of insulin-like proteins, corroborating previous reports for other plant species.

Keywords: *Moringa oleifera*, insulin-like protein, hypoglycemic activity

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