Effect of the crude extract of *Myrcia bella* Cambess. in streptozotocin-induced diabetic mice

P. M. P. VAREDA¹, L. L. SALDANHA¹, A. L. DOKKEDAL², J. R. BOSQUEIRO³

¹Institute of Biosciences, Botucatu; ²Department of Biology Science, Bauru; ³Department of Physical Education, Bauru, UNESP - State University of São Paulo, Brasil.

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**Introduction:** Some species of *Myrcia* are used in traditional medicine in the treatment of *Diabetes mellitus*, a group of metabolic disease characterized by hyperglycemia, defects in insulin secretion or action or both.

**Experimental design:** Powdered leaves were extracted with EtOH/Water (7:3) by percolation and the chromatographic analysis made using Accela (Thermo Scientific®) HPLC-ESI-IT-MS with Phenomenex® C18 column. Male albino Swiss mice (90 days, 40 g) had diabetes induced by a single injection of streptozotocin (150mg/kg). The animals were treated by gavage for 14 and 21 days with crude extract of *M. bella* at concentrations of 300 and 600mg/kg. Animals were divided into 4 groups: CTL SAL (normal mice treated with saline), CTL EXT (normal mice treated with extract), STZ SAL (diabetic mice treated with saline) and STZ EXT (diabetic mice treated with extract). Physiological and biochemical parameters were evaluated during and after the end of treatment. All results were expressed as Mean±SEM. Statistical analyzes were performed using ANOVA followed by Tukey post test.

**Results and Discussion:** The chemical screening showed flavonols glycosides of quercetin and myricetin derivatives and phenolic acids. The treatment with the extract caused decrease in fasting blood glucose in STZ EXT at the dose of 600mg/Kg (338.12±56.67) compared with STZ SAL (507±37.32). Cholesterol and triglyceride were decreased in STZ EXT treated with the dose of 600mg/kg (88.54±11.36; 70.20±8.18) compared with STZ SAL (172.46±16.14; 128.95±11.91 respectively, (P<0.05, n=8). Water and food intake were decreased in diabetic animals treated with the extract in both concentrations in relation to diabetic rats treated with saline (P<0.05).

**Conclusion:** The crude extract of *M. bella* seems to be a valuable source of natural products that can act as a hypolipidemic and hypoglicemic agent.

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