Hypoglycemic and hypolipidemic effects of *Bauhinia holophylla* in streptozotocin diabetic mice

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**Key-words:** *Bauhinia holophylla; diabetes mellitus; flavonoids; glycemia; lipids.*

**INTRODUCTION:** Diabetes Mellitus is a chronic disease characterized by hyperglycemia resulting from defects of insulin secretion, or action or both. *Bauhinia holophylla* is widely used by folk medicine, but there is no experimental evidence proving these effects. The aim of this study was to investigate the effects of crude extract of *Bauhinia holophylla* in streptozotocin-diabetic mice.

**METHODS:** The leaves (794 g) were dried (at 60 °C for 4 days) and powdered. The dry powdered (220 g) was submitted to extraction by percolation with EtOH: H₂O (70:30, v:v). The solvent was filtered and evaporated at 35°C under reduced pressure providing 70%EtOH extract (65 g). Male swiss mice (90-day old, 40g) were separated in control and diabetic (induced to diabetes by intraperitoneal injection of one single dose of 150 mg/kg of streptozotocin) and divided in 4 groups treated by gavage: CTLSAL (control mice treated with saline), CTLEXT (control mice treated with crude extract of *B. holophylla* by 15 days, 400 mg/kg.day), STZSAL (diabetic mice treated with saline) and STZEXT (diabetic mice treated with crude extract of *B. holophylla* by 15 days, 400/mg/kg.day). Results are expressed as Mean±SEM. Statistics were performed by ANOVA with Tukey post test. The level of significance adopted was p<0.05.

**RESULTS/DISCUSSION:** The chemical screening showed glycosides of flavonols, as quercitrin and guajavarin in addition to other flavonoids, such as myricitrin. After treatment STZEXT group showed decrease of glycemia (313.8±52.1 mg/dL), cholesterol (72.7±7.4 mg/dL) and triglycerides levels (94.5±5.1 mg/dL) when compared with STZSAL group (527.4±22.4; 86.2±9.5; 138.9±13.7, respectively, p<0.05, n=8). Hepatic glycogen (mg/%) content was decreased in STZSAL group (1.16±0.19, p<0.05, n=8), while in STZEXT group (1.85±0.27) it returned to control values (1.8±0.26, n=8).

**CONCLUSION:** The data indicates beneficial effects of the treatment with *Bauhinia holophylla* of streptozotocin diabetic mice.

**FINANCING:** FAPESP.