EFFECT OF *CYTISUS MULTIFLORUS* IN THE CONTROL OF TYPE-2 DIABETES

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Medicinal plants display diverse pharmacological activities with marked therapeutic effects. Type-2 diabetes (T2D) remains a major health problem among industrialized countries, therefore the investigation of formulas to prevent or attenuate the metabolic syndrome, including new therapeutic agents. Currently the interest of medicinal plants is increasing. Portuguese native flora includes several plants known for their hypoglycemic properties.

The aim of this work was to study the pharmacological effect of *Cytisus multiflorus*, one plant from the Portuguese flora traditionally used as an ethnopharmacological agent in diabetes control.

The effect of aqueous extracts of *Cytisus multiflorus* was studied in the 3rd inbreeding generation of rodents showing abnormal glucose tolerance curves selected among our Wistar colony. Glucose intolerant female rats were selected after oral glucose tolerance test. The animals were fed with standard diet and water *ad libitum*. The extract was prepared by refluxing 100g of coarsely powdered flowering parts of the plant with 3L of distilled water for 10min, filtered and evaporated under pressure. The extract was conserved at 4ºC until analysis. Five groups of 5 female rats were daily administered by gavage with saline solution, glycazide or three doses of aqueous plant extract for 28 days. Fasting and postprandial glyceamia were assessed once a week.

In response to treatment with the plant extract, a significant dose-dependent decrease of the postprandial blood glucose levels was observed. The maximum effect of the plant extract was similar to the glycazide treated group. Fasting glyceamia was not significantly altered in any of the groups.

These results suggest the validity of ethnical use of *Cytisus multiflorus* in T2D control.

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