INTRODUCTION Insulin deficiency in type 1 Diabetes mellitus alters the physiology of the body, including lipid metabolism. Therapies to stimulate insulin secretion with less risk of hypoglycemia and in parallel improving the lipid profile are considered promising in delaying the evolution type 1 of Diabetes.

OBJECTIVES This work has the purpose to evaluate the potential of Vildagliptin in improving lipid profile experimental models of type 1 Diabetes.

METHODS Thirty-Two Female albino Fischer rats with a body weight of 200 g were divided into four groups: (C) an untreated control group, (CV) a control group treated with Vildagliptin (5 mg/kg body mass), (D) an untreated diabetic group, and (DV) a diabetic group treated with Vildagliptin (5 mg/kg body mass). For diabetes induction, the rats received Alloxan (135 mg/kg body mass) intraperitoneally. Thirty days after diabetes induction the animals received oral treatment with Vildagliptin for thirty consecutive days. The rats were euthanized, the blood was collected for biochemical analyzes. This work was approved by the Ethics Committee on Animal Use (CEUA) of Universidade Federal de Ouro Preto (#2011/27). The results were expressed as mean ± SE and analyzed by Student's t-test. Differences were considered significant when p<0.05.

RESULTS Treatment with Vildagliptin has shown promise in improving the lipid profile in both groups. Comparing the diabetic group with diabetes treated with Vildagliptin, the total cholesterol concentration decreased by 32% in the treaties, the concentration of cholesterol non-HDL fraction reduced by 60% and triglycerides decreased by 46%.

CONCLUSIONS Treatment with Vildagliptin was effective in improving the lipid profile in experimental type 1 Diabetes mellitus.

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Key words: Lipid profile, Type 1 diabetes, Vildagliptin.