

Effects of a cinnamon extract on plasma glucose, HbA, and serum lipids in diabetes mellitus type 2.

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Abstract Background According to previous studies, cinnamon may have a positive effect on the glycaemic control and the lipid profile in patients with diabetes mellitus type 2. The aim of this trial was to determine whether an aqueous cinnamon purified extract improves glycated haemoglobin A1c (HbA(1c)), fasting plasma glucose, total cholesterol, low-density lipoprotein (LDL), high-density lipoprotein (HDL) and triacylglycerol concentrations in patients with type 2 diabetes.

Methods:

A total of 79 patients with diagnosed diabetes mellitus type 2 not on insulin therapy but treated with oral antidiabetics or diet were randomly assigned to take either a cinnamon extract or a placebo capsule three times a day for 4 months in a double-blind study. The amount of aqueous cinnamon extract corresponded to 3 g of cinnamon powder per day.

Results:

The mean absolute and percentage differences between the pre- and post-intervention fasting plasma glucose level of the cinnamon and placebo groups were significantly different. There was a significantly higher reduction in the cinnamon group (10.3%) than in the placebo group (3.4%). No significant intragroup or intergroup differences were observed regarding HbA(1c), lipid profiles or differences between the pre- and postintervention levels of these variables. The decrease in plasma glucose correlated significantly with the baseline concentrations, indicating that subjects with a higher initial plasma glucose level may benefit more from cinnamon intake. No adverse effects were observed.

Conclusions:

The cinnamon extract seems to have a moderate effect in reducing fasting plasma glucose concentrations in diabetic patients with poor glycaemic control.

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