25<sup>th</sup> Global

## DIABETES SUMMIT AND MEDICARE EXPO

## Effect of ginger consumption on glycemic status, insulin resistance and inflammatory markers in patients with type 2 diabetes mellitus

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**Background and Objective:** Diabetes mellitus is a common metabolic disorder characterized by highblood glucose concentrations. The present study assessed the effect of ginger consumption on glycemicstatus, insulin resistance, and inflammatory markers in patients with type 2 diabetes mellitus.

**Materials and Methods:** This was a randomized, double-blind, placebo-controlled clinical trial. The 70type 2 diabetic patients were randomly allocated to an intervention (ginger) group (n=35) or control group(n=35). The intervention group consumed 1600 mg powdered ginger and the control consumed 1600 mg wheat flour placebo (2 capsules of 800 mg) daily for 12 wk. Fasting plasma glucose, hemoglobin A1C,insulin, HOMA index, prostaglandin E2, and TNF $\alpha$  were measured and compared using statistical testsbefore and after intervention.

**Results:** The results of 63 patients were analyzed (intervention group, n = 33; control, n=30). The analysisshowed that the consumption of ginger decreased fasting plasma glucose (p = 0.02), hemoglobin A1C(p=0.01), insulin (p=0.00), HOMA index (p=0.00) and prostaglandin E2 (p=0.00) significantly over the control.

**Conclusion:** The consumption of ginger increased the glycemic status and insulin resistance, and decreased the inflammatory marker for prostaglandin E2 in type 2 diabetic patients.

Keywords: Ginger, Type 2 diabetes, Blood sugar, Insulin resistance, Inflammation

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