



P148 The Administration of Green Tea Extract Improves Hemodynamic Parameters, Arterial Stiffness and Renal Function in Patients with Diabetic Nephropathy

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ABSTRACT

Purpose/Background/Objectives: Type 2 Diabetes Mellitus (T2DM) is a disease characterized by macro and microvascular complications, particularly, coronary heart disease, cerebrovascular disease and nephropathy [1–4]. The green tea extract has shown an anti-inflammatory effect (2), so this nutraceutical could be an alternative adjuvant in the treatment of the patient with diabetic nephropathy (DN) [5–7]. To evaluate the effect of the administration of green tea extract on hemodynamic, arterial stiffness, metabolic and renal function parameters in patients with DN.

Design and Methods: It was a randomized, double-blind study performed in 28 patients with DN, 14 assigned to placebo and 14 green tea extract, 400 mg every 12 hours for 12 weeks. Hemodynamic and arterial stiffness parameters were determined with HEM-9000AI, VP1000 Omron and metabolic parameters and renal function with Erba XL-100 equipment.

Results: The group under green tea extract treatment had significant decrease in the systolic blood pressure (mmHg) compared to those under placebo (-4.3 ± 12.7 vs 5.4 ± 12.2), central pressure (mmHg) (-6.0 ± 13.4 vs 9.1 ± 14.4), pulse pressure (mmHg) (-3.5 ± 6.6 vs 3.3 ± 6.4), triglycerides (mg/dl) (-16.4 ± 46.7 vs 30.3 ± 35.9), creatinine (-1.3 ± 0.2 vs 0.1 ± 0.1) and GFR ($\text{ml}/\text{min}/1.73 \text{ m}^2$) [8] (6.2 ± 5.9 vs -7.7 ± 10.9).

Conclusion: The administration of green tea extract improves hemodynamic parameters, metabolic parameters and renal function in patients with DM2 and chronic kidney disease.

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