

Effect of Satureja khuzestanica Jamzad Supplementation on Inflammatory and Antioxidant Indicators in Type 2 Diabetes Patients: A Randomized Controlled Clinical Trial Study

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Abstract : Objective: Diabetes mellitus type 2 is the most common metabolic disorder that is growing exponentially worldwide. Satureja Khuzestanica Jamzad is a native plant of Iran that grows widely in the south of Iran. Its antimicrobial, antioxidant, anti-inflammatory and pain-relieving effects have been documented in animal studies. The purpose of this study is to investigate the effect of consumption daily S. khuzestanica on inflammatory and antioxidant indicators in type 2 diabetic patients. Methods and Materials: In a double-blind, placebo-controlled clinical trial, 67 patients with type 2 diabetes were included and divided into two groups. One group received S. khuzestanica (capsule containing 500 mg) and the other group received placebo (500 mg talcum powder) once a day for 12 weeks. After the intervention, the inflammatory and antioxidant indicators of the two groups were compared. Results: In comparison to placebo groups, there was a significant difference in levels of total antioxidant capacity, superoxide dismutase, catalase, glutathione reductase, and glutathione peroxidase; these antioxidant indicators were higher in the intervention group ($P < 0.05$). Moreover, a considerable decrease in weight, CRP and IL-6 levels were observed in patients in the S.Khuzestanica group. Conclusion: Our findings may provide novel complementary treatments without adverse effects for diabetes complications.

Keywords : Satureja khuzestanica Jamzad, diabetes mellitus, antioxidant indicators, IL-6, C-reactive protein

Conference Title : ICCE 2024 : International Conference on Clinical Endocrinology

Conference Location : Rome, Italy

Conference Dates : March 04-05, 2024