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The Effect of Nettle Extract on Glycemic Indices and Insulin Resistant in Patients with Type2 Diabetes: A Randomized Doubled-blined Clinical Trial

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## **Abstract:**

**Back ground**: Diabetes is a common endocrine disorder caused by deficiency of insulin secretion or insulin resistant. Today, in addition to trying to find a safe way to control diabetes, find the low side effect way is important. This study was designed to find the effect of nettle extract on glycemic index and insulin resistant in patients with type2 diabetes. Methods: A parallel randomized clinical trial was conducted with participating 60 patients with type 2 diabetes who met inclusion criteria were recruited. Patients were randomly assigned to receive 100mg/kg/day extract of nettle( NG) or the other group which had placebo (PG) over a 8 weeks period. Fasting blood sugar (FBS) concentration and insulin resistance indices(insulin concentration,insulin resistance(IR) and beta cell function(B%)) were measured at baseline and end of the study. Data was analyzed with ANOVA in SPSS 16.0 and p<0.05 was considered significant. Results: The mean diffrence of FBS in NG and PG were -20.16±52.6 and 0.7±45.29 respectively(pvalue=0.14)that showed no significant difference between groups and the mean difference of insulin concentration, IR and B% in NG and PG were 5.92±8.92 and - $0.35\pm4.02$  (p-value=0.002),  $0.88\pm1.8$  and  $-.04\pm0.55$  (p-value=0.013),  $-.04\pm0.55$  and -1.22±18.14 (p-value=0.002) respectively that showed significant increase in insulin concentration and IR and B% in NG compared to PG. Conclusions: In the present study we demonstrated that consumption of nettle extract don't have significant effect on FBS and it has significant effect on insulin resistance indices.

Keywords: Diabete mellitus, Urtica dioica