Irisin is a novel myokine that promote energy expenditure (1). It could act on adipocyte metabolism through a novel neural pathway and on the other hand irisin induces neural proliferation and adequate neural differentiation (2). Aim: we aimed to assess serum irisin level in type 2 diabetics (T2DM) and correlate it with metabolic parameters. Also, we assessed the relation between irisin level and diabetic peripheral neuropathy (DPN).

**RESULTS**

Irisin level was significantly lower in diabetics than control (40.92 17.99 vs.160.14 58.67 ng/mL, p<0.01). Diabetics with PN had lower irisin than diabetics without complications (27.57 7.61 vs.54.27 15.24 ng/mL, p<0.01). Irisin levels were negatively correlated with FBS (r = -0.487), 2hPG (r = -0.570), HbA1c (r = -0.596), fasting Insulin (r = -0.368), HOMA-IR (r = -0.441) and TGs (r = -0.327) in all studied groups (p<0.01). Also, it was negatively correlated with the duration of diabetes in all diabetics (r = -0.764, p<0.01). We found a negative correlation between irisin and age only in healthy subjects (r = -0.480, p<0.01). Multiple regression analysis revealed that HbA1C, age, F. Insulin, BMI, and HOMA-IR respectively were independent determinants for irisin level.

**CONCLUSIONS**

We found that irisin levels were decreased in type 2 diabetic patients and a further significant reduction was observed in patients with diabetic neuropathy. There is a significant negative correlation between irisin level and glycemic control and insulin resistance state.

**References**

