

The Effects of Therapy on Oxidative Stress, Ghrelin and Nesfatin-1 Levels in Iron Deficiency Anemia

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Abstract : The aim of this study is to investigate the effect of iron therapy on oxidative stress, ghrelin, and nesfatin-1 levels in patients with iron deficiency anemia (IDA). Thirty patients who applied to Internal Medicine Clinic and were diagnosed with IDA and also 30 healthy individuals as a control were included in the study. The samples were collected from IDA patients before and after treatment. Differences in serum MDA, TAC, and plasma ghrelin, nesfatin-1 were analyzed among the three groups. Serum MDA and TAC levels were found higher and lower in IDA patients before the treatment group compared to the controls ($p < 0.05$). After the iron therapy, plasma acylated ghrelin and nesfatin-1 levels in IDA patients were found higher in IDA patients before the treatment group and controls ($p < 0.05$). Plasma ghrelin and nesfatin-1 levels increase with iron treatment in IDA patients. The iron therapy induces the synthesis of ghrelin and nesfatin-1 in human body, thus causes increased appetite and food intake.

Keywords : anemia, oxidative stress, ghrelin, nesfatin-1

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