Elevated oxidative stress increases the risk of obesity, is associated with perturbed maternal metabolism, raised plasma hormones, including leptin, insulin, and IGF-1, and the accumulation of inflammatory markers (1,2). The objective of our study was to evaluate whether folic acid exerts antioxidant effect on body weight gain in pregnant women. The study was performed as a retrospective study in Suleyman Demirel University, Obstetrics Center between 2015-2016. In the current study weight gain of sixty five pregnant women who used folic acid during first trimester were compared with un-treated (control) twenty eight pregnant women. The statistical analyses were performed with the SPSS 21.0 program by using Mann Whitney U test. The differences between these values at the 95% confidence interval (CI) was statistically significant (p<0,05). This results show that the percentage of body weight difference between used folic acid pregnant (median=41,73) or not used folic acid pregnant (median=59,23) was : (U=567,5-p<0,05).

In conclusion, the current results show that maternal weight gain could be affected by the association between folic acid supplementation and the oxidative stress metabolism (3,4). However, further studies need to explore the benefits folic acid usage in preventing obesity.

Key words: Folic acid, pregnant weight gain, oxidative stress

References