

**OXIDATIVE STRESS PARAMETERS AND INTERACTION OF THESE
PARAMETERS WITH THE TREATMENT IN PATIENTS WITH
HYPOGONADISM**

ABSTRACT

Aim: This study has been conducted in order to reveal the presence of oxidative stress in patients with hypogonadotropic hypogonadism over the antioxidant parameter thiol with protein, lipid and nucleic acid oxidation products, and further to evaluate the probable effects of current patient treatments on oxidative stress.

Material and Method: 30 male patients with a diagnosis of hypogonadism and age- and sex-matched control group of 20 healthy volunteers were included in this study. In order to assess oxidative stress; advanced oxidation protein products (AOPP), thiol, malondialdehyde (MDA), nitric oxide (NO) and 8-hydroxydeoxyguanosine (8-OHdG) levels of the subjects were measured.

Findings: When the pre-treatment and post-treatment evaluations were made to the patient group, it was observed that thiol level was statistically higher, AOPP, MDA and NO levels were statistically lower and 8-OHdG level showed no statistically significant difference after treatment.

Result: The view that oxidative stress is a significant factor in hypogonadism pathogenesis is supported with high AOPP, MDA, NO levels and low thiol level measured in the study. Our study is the first to evaluate AOPP, MDA, NO and thiol levels of patients with hypogonadism in plasma/serum. We are in the opinion that this study will make significant contributions to the literature for the explanation of the pathogenesis of the disease and will be useful in treatment protocols.

Key Words: Hypogonadism, AOPP, thiol, MDA, NO, 8-OHdG.