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Comparison of Superoxide Dismutase Levels in Obese with Metabolic Syndrome and Obesity Non Metabolic Syndrome

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Abstract: Obesityis principal causative factor in the development of metabolic syndrome and oxidative stress plays critical roles in the pathogenesis of various diseases.Fat accumulation correlated with systemic oxidative stress in humans. Superoxide dismutase is an enzyme that overcomes the oxidative stress in the human body.Because of the importance of the role of enzymes superoxide dismutase in dealing with oxidative stress and increase oxidative stress in obesity this study aimed to analyzethe comparison of superoxide dismutase levels in obese with metabolic syndrome and obese non metabolic syndrome.The sample population is obese adults, then we examined the weight, height, waist size, blood pressure, laboratory tests such as blood sugar levels and lipid profile of sample population to separate obese with metabolic syndrome and obese non metabolic syndrome. After we determined each group we measured stress oxidative levels in bloodin obese with metabolic syndrome and obese non metabolic syndrome by Spectrophotometric assay method. With statistical analysis using T test found that there was significant difference of superoxide dismutase levels between obese with metabolic syndrome and obese without metabolic syndrome ($p<0.005$).
Key words :obesity,metabolic syndrome, superoxide dismutase.

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