

Cardiotrophin-1 and Leptin in Male Patients with Obstructive Sleep Apnea Syndrome

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Abstract : Elevated serum Cardiotrophin-1 (CT-1) and leptin levels are important risk factors for cardiovascular diseases (CVDs). Obstructive sleep apnea syndrome (OSAS) has been reported to increase the risk of CVDs, too. The aim of this study was to evaluate the concentrations of serum CT-1 and leptin in these patients and whether their possible association with the disease severity. Fifty newly diagnosed patients with OSAS and thirty nonapneic snoring subjects were participated in this study. The mean ages of patients and control groups were 47.40 ± 13.30 and 43.23 ± 10.50 years, respectively ($P=0.128$). Fasting serum triglyceride, total cholesterol, LDL and HDL cholesterol, also CT-1 and leptin levels were evaluated. A significant difference was found in the serum CT-1 and leptin levels between the patients and the controls: serum median CT-1 levels in patients and control groups, respectively, were 19.47 and 8.23 pg/mL ($P < 0.001$) and leptin levels were 2.07 and 1.29 ng/mL ($P < 0.001$). In severe patients group ($n=39$), serum median CT-1 level was found statistically significantly higher than the median level in mild/moderate patients ($n=11$) group. Patients CT-1 concentrations were not associated with lipoprotein levels and there was no correlation between patients' leptin and lipid profile parameters. Two risk factors for CVDs, CT-1 and leptin, have significantly elevated and they were associated with OSAS. Furthermore, CT-1 was associated with the severity of disease. We recommend the use of increased serum CT-1 and leptin concentrations as markers of the presence and severity of OSAS. They can be used as early markers in male OSAS patients without known CVDs.

Keywords : obstructive sleep apnea syndrome, cardiotrophin-1, leptin, cardiovascular disease

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020