Abstract Template

Title: Atherosclerotic changes of a. carotis and serum hepcidin in patients with obstructive sleep apnea

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I. Abstract Body

Obstructive sleep apnea syndrome (OSA) is defined as a combination of symptoms as a result of intermittent, recurrent constraint and / or complete airway overhead airway overflow (sleep disturbance). During desaturation episodes, the organism is subjected to chronic stress. This leads to reduced nitric oxide secretion, increased release of interleukin-6, tumour necrosis factor-alpha and other pro-inflammatory cytokines. The described pathological cascades are associated with the development of insulin resistance, arterial hypertension, metabolic syndrome, systemic atherosclerosis and increased cardiovascular risk. 55 patients with OSA were included; age 45.9 ± 8.9. Their results were compared to sex and age matched healthy control. CBC, serum iron, ferritin, hsCRP, hepcidin, homocysteine and vitamin B12 were measured in the included groups. IMT and FMT were used for atherosclerotic changes evaluation. We found increased serum hepcidin levels in OSA patients with IMT and FMD changes (101.9 ± 10.1 μg/L) compared to healthy controls (18.5 ± 2.5 μg/L); P<0.001. IMT and FMD correlates positive in OSA patients with atherosclerotic changes to serum hepcidin concentrations (r=0.829, r=0.871, resp.; P<0.005). Serum hepcidin correlates positively to homocysteine and hsCRP in OSA patients (r=0.749, r=0.805, resp.; P<0.005).Brain-vascular disease risk factors are connected to obstructive sleep apnea syndrome. Disregulation of iron homeostasis is one of the main risk atherogenesis factors. Early hepcidin quantification might predict an atherosclerosis occurrence in OSA patients, which might be very important for better clinical diagnosis and practice.

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II. Reference:

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III. Biography:

Victor Manolov has completed his PhD at Medical University in Sofia, Bulgaria. He is working as Assist. Prof. at Department of Clinical laboratory and clinical immunology at the same University. His interests are in neurology, pediatrics, gynecology, endocrinology and clinical laboratory. He has published more than 20 papers in reputed journals.

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