

# QUALITATIVE STATE OF LIPOPROTEINS UNDER ARTERIAL HYPERTENSION AND CHRONIC KIDNEY DISEASE

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The changing the enzyme's activity which conjugated with high-density lipoproteins under dysfunctional of the metabolic process caused disease in the cardiovascular system. Preventing their complications is paramount for patients with chronic kidney disease (CKD) [1]. For investigating the development of pathogenesis in lipoprotein, the activity of lipoprotein-associated enzymes (paraonase-1 and myeloperoxidase) were evaluated in patients with the II stage arterial hypertension (AH) and CKD. The study included 50 patients (mean age 54 years) with AH, 30 (mean age 48 years) with CKD and 30 conditionally healthy donors (mean age 46 years). The Kruskal-Wallis criterion was performed for processing the data ( $P < 0.01$ ) [2].

The activity of paraonase-1 in blood plasma in both groups of patients was two times lower under this index in the control group. The activity of myeloperoxidase, conversely, was approximately two times increase in the patient with AH and one and a half times increase in the patient with CKD which signals about the activation of free radical oxidation processes.

Consequently, the decreased activity of paraonase-1 leads to the loss of antioxidant and anti-atherogenic properties of high-density lipoprotein and may be used as predictive markers for cardiovascular disease.

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[2] Ungurianu A, Margina D, Gradinaru D, Bacanu C, Ilie M, Tsitimpikoungurianu C, et al. Lipoprotein redox status evaluation as a marker of cardiovascular disease risk in patients with inflammatory disease. *Mol Med Rep* 2017;15:256-62. doi: 10.3892/mmr.2016.5972