

Summary of the M.S thesis No.,12336 . **Clinical biochemistry**, Faculty of Veterinary Medicine, Urmia University.

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Title: Evaluation of Copeptin and Chemerin levels in sera of the patients with coronary heart disease

Abstract:

Visfatin is one of insulin-like proteins and leptin is a type of adipokine secreted from fat tissue, which play an important role in obesity, insulin resistance and atherosclerosis. The aim of this study is to investigate the changes in visfatin and leptin levels in heart patients with coronary artery occlusion. In this study, 70 patients (32 women and 38 men) admitted to Seyed al-Shohad Hospital in Urmia were selected after angiography and diagnosis of the disease and the number of involved vessels, and blood samples were prepared. Biochemical factors such as triglyceride, cholesterol, HDL and LDL, leptin, visfatin, CRP and atherogenic index were evaluated. The results of this study showed that patients with CAD had higher levels of serum visfatin and leptin compared to the control group. The amount of visfatin and leptin showed a stronger increase with the increase in the number of involved coronary vessels compared to the control group (normal heart coronary vessels) $P < 0.05$. A very strong correlation was found between CRP, visfatin and leptin values on the one hand, and on the other hand, a correlation between these indicators with cholesterol and triglyceride values was found, so that the increase in blood lipids led to an increase in the serum levels of CRP, visfatin and leptin, and in other words, it can cause Induce heart damage. The evaluation of the results of the ROC curve regarding the sensitivity and characteristics of the heart under study in order to detect early heart damage showed that CRP has the highest sensitivity (98%) followed by leptin (94%) and visfatin (93%), which It can be due to the high half-life of CRP, as well as the hospitalization time of patients and the duration of coronary heart disease.

The results obtained in this study showed that new indicators for diagnosing heart damage such as visfatin and leptin can be used in the early diagnosis of cardiovascular diseases due to their influence on blood lipid changes.

Keywords: Visfatin, Leptin, CRP, Blood lipid profile, Coronary heart disease