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Adropin: Connection between Nonalcoholic Fatty Liver Disease and Coronary Artery Disease

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Dear Editor,

We read the article entitled "Serum Adropin Levels Are Reduced in Adult Patients with Nonalcoholic Fatty Liver Disease" by Kutlu et al. [1] with interest. The authors evaluated serum adropin levels among patients with nonalcoholic fatty liver disease (NAFLD) and presented evidence for the association of serum levels of adropin with insulin resistance and NAFLD in adult patients.

A low serum adropin level is associated with reduced nitric oxide bioavailability in the endothelium. Reduced bioavailability of nitric oxide is a major feature of endothelial dysfunction, which is a predictor of atherosclerosis [2]. Adropin has been identified recently as a regulatory protein that participates in the regulation of energy homeostasis and insulin response [3].

Kumar et al. [4] demonstrated that adropin has protective effects on the cardiac system of mice. Ertem et al. [5] investigated the association between non-ST elevation myocardial infarction and

serum adropin levels. In this study, patients with acute coronary syndrome and a high SYNTAX score had a significantly lower adropin level compared to acute coronary syndrome patients with a low SYNTAX score.

According to these studies, when a patient is diagnosed as NAFLD with low levels of adropin, further investigations should be considered for the detection of coronary artery disease and its complexity.

Disclosure Statement

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this letter.

References

- 1 Kutlu O, Altun Ö, Dikker O, Aktaş Ş, Özsoy N, Arman Y, et al. Serum Adropin Levels Are Reduced in Adult Patients with Nonalcoholic Fatty Liver Disease. *Med Princ Pract*. DOI: 10.1159/000500106.
- 2 Lovren F, Pan Y, Quan A, Singh KK, Shukla PC, Gupta M, et al. Adropin is a novel regulator of endothelial function. *Circulation*. 2010 Sep; 122(11 Suppl):S185–92.
- 3 Zhao LP, Xu WT, Wang L, You T, Chan SP, Zhao X, et al. Serum adropin level in patients with stable coronary artery disease. *Heart Lung Circ*. 2015 Oct;24(10):975–9.
- 4 Kumar KG, Trevaskis JL, Lam DD, Sutton GM, Koza RA, Chouljenko VN, et al. Identification of adropin as a secreted factor linking dietary macronutrient intake with energy homeostasis and lipid metabolism. *Cell Metab*. 2008 Dec;8(6):468–81.
- 5 Ertem AG, Ünal S, Efe TH, Açar B, Yayla Ç, Kuyumcu MS, et al. Association between serum adropin level and burden of coronary artery disease in patients with non-ST elevation myocardial infarction. *Anatol J Cardiol*. 2017 Feb;17(2):119–24.