**NESFATIN-1 LEVEL IN HYPERTENSIVE MEN AND WOMEN WITH OBESITY**

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It is known that the incidence of cardiovascular disease in the population has a certain gender characteristics. For example, mortality from cardiovascular diseases among men is 1.6-2.0 times higher than among women. Concomitant obesity adversely affects the course and prognosis of the disease also. According to recent investigations, nesfatin-1 plays an important role in the pathogenesis of metabolic disorders. Besides hypothalamus and adipose tissue, its secretion is also found in the tissues of other organs, particularly gonads, and due to some studies it may depend on the level of some sex hormones.

We aimed to investigate gender features of nesfatin-1 level in hypertensive patients with concomitant obesity.

Methods. The study involved 83 patients with essential hypertension. The basic anthropometric indices were measured. Serum nesfatin-1 levels was measured using ELISA method. Results are represented as Me (Q25-Q75). Mann-Whitney U-test, ANOVA rank Kruskal-Wallis test, the median test, Spearman's rank correlation coefficient were used, p<0.05.

Results. The study involved 34 men and 49 women with essential hypertension. The patients were divided into three groups. Group I included 13 (16% of the total number of examined patients) hypertensive patients with normal body weight. Group II consisted of 37 (44%) patients with a moderate increase in weight (overweight and obesity I class). The phenotype of Group III included 33 (40%) hypertensive patients with significant overweight (obese of II and III classes). The control group consisted of 12 healthy persons.

Serum nesfatin-1 level in the I group was 8.26 (7.75-8.58) ng/ml, in the II group – 7.51 (6.70-8.10) ng/ml, in the III group – 7.57 (6.85-8.37) ng/ml and in the control group it was 4.53 (4.23-4.87) ng/ml. There were a significant increasing in nesfatin-1 levels in all patients as compared with healthy individuals (p<0.001).

The analysis of gender characteristics showed that there was a significant difference between nesfatin-1 level in men (8.04 (7.19-8.56) ng/ml) and females (7.38 (6.65-8.10) ng/ml) of all patients (p<0.01). Levels of nesfatin-1 depending on the presence and severity of obesity were as follows: in the I group – 8.27 (7.81-8.58) and 7.78 (7.58-8.55) ng/ml (p>0.05), in the II group – 7.91 (6.99-8.57) and 7.19 (6.57-7.67) ng/ml (p<0.05) in the III group – 8.07 (6.94-8.47) and 7.26 (6.79-8.17) ng/ml (p>0.05) in men and women respectively.

Conclusions. According to these results, we can suppose that nesfatin-1 contributes to the pathogenesis of hypertension and concomitant obesity, and may relevant in a sex-specific way.