1Goptsii O., 2Buryakovska O., 2Reznik L., 2Vovchenko M.

**ARTERIAL HYPERTENSION AND NON-ALCOHOLIC FATTY LIVER DISEASE: ADIPOKINE ACTIVITY**

1Kharkov National Medical University (Internal medicine№1), Kharkov, Ukraine)

2SI «National Institute therapy named after L.T.Maloyi NAMS of Ukraine», (Kharkov, Ukraine)

Abdominal obesity (AO) increases the risk of developing a variety of pathological conditions, including insulin resistance (IR), type 2 diabetes, dyslipidemia, arterial hypertension (AH) and non-alcoholic fatty liver disease (NAFLD). Chronic inflammation in adipose tissue can have impact on the development of obesity-related metabolic dysfunction.

Purpose of the research. Was studied the changes of levels of leptin, tumor necrosis factor (TNF-α) and insulin resistance index in patients‘ with AH and NAFLD depending on abdominal obesity.

Materials and methods. 103 patients with AH and NALFD were observed (average age was 53.87±4.92 yrs.). NALFD was detected by the ultrasonography. Levels of leptin, insulin and TNF-α were obtained by ELISA. IR index (HOMA-IR index) was calculated. Distribution of adipose tissue were evaluated by measuring the patients' waist. Patients were divided in two groups: the first one - 36 patients with AH and NAFLD without AO, the second one - 87 patients with AH and NAFLD with AO.

Results. the leptin level, TNF-α and the HOMA-IR index (leptin 12.73±0.82 ng/ml, female patients: 12.93±0.99 ng/ml, male patients: 11.92±1.23 ng/ml; TNF-α 8.40±0.44 mg/ml; HOMA-IR index 4.09±0.49 CU) were significantly higher in the patients patients with AH and NAFLD with AO than such of the patients with AH and NAFLD without AO: (leptin 6.66±0.48 ng/ml, female patients: 6.25±1.19 ng/ml, male patients: 6.78±0.53 ng/ml; TNF-α 5.31±0.37 ng/ml; HOMA-IR index 2.0±0.22 CU). Conclusion. The levels of leptin, TNF-α and insulin resistance index were elevated statistically significant in patients with AH and NAFLD with AO.