



**Results.** Patients were divided into two groups depend on the presence prediabetes. The 1 group consisted of hypertensive patients without prediabetes. The 2 group included hypertensive patients with prediabetes. Hypertensive patients were characterized by increased interleukin-6 activity (18,81 (13,14-26,69) pg/ml). In hypertensive patients with prediabetes decrease interleukin-6 activity (13,94 (11,00-16,94) pg/ml) were found. The hypertension is accompanied by dyslipidemia, characterized by increased levels of total cholesterol 5,67 (4,96- 7,11) mmol/L, triglyceride 2,75 (2,56-3,01) mmol/L, low-density lipoprotein-cholesterol 0,98 (0,83-1,35) mmol/L and decreased levels of high density lipoprotein-cholesterol 3,51 (2,77-4,54) mmol/L, it was most expressed in patients with hypertension of the 1 group.

**Conclusions.** According to the obtained results, interleukin-6 plasma level is increased in patients with hypertension, suggesting that the haemodynamic stress caused by elevated blood pressure is sufficient incentive to the growth secretion of these cytokines. The hypertension is accompanied by dyslipidemia, characterized by increased levels of total cholesterol, triglyceride, low-density lipoprotein-cholesterol and decreased levels of high density lipoprotein-cholesterol, it was most expressed in patients with hypertension of the 1 group. Significant positive relationships between interleukin-6 and parameters of lipid metabolism in patients with hypertension and prediabetes were detected.

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### **EFFECT OF THIAZOLIDINEDIONES ON INSULIN RESISTANCE AND REDUCED-FAT LIVER**

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**The purpose** of the study was to estimate the effectiveness of pioglitazone in reducing insulin resistance (IR), the severity of hepatic steatosis.

**Materials and methods.** The study involved 76 patients with insulin resistance and hypertension II degree, pioglitazone for 24 weeks. Liver enzymes ALT, AST and gamma-glutamyl aminotransferase (GGT), fasting plasma glucose was determined by clinical methods. Immunoreactive insulin levels were determined ELISA. Nonalcoholic fatty liver disease (NAFLD) was measured by ultrasound. Correction of insulin resistance and lipid carried pioglitazonom 15 mg / day and then increasing to 30 mg / day for 24 weeks.

**Results.** Among the examined 76 patients with IR over 50% were persons with fatty liver disease with varying degrees of severity. Decreased levels of hepatic transaminases: AST to 27.27% (p <0.05), ALT by 41.2% (p <0.001), GGT - by 47.04% (p <0.001). The number of people without NAFLD has increased by 35%. Pioglitazone reduced the severity of fatty liver disease (a large degree of pre-treatment was found in 9.7%, after 2.3%, moderate - 27% vs. 13%), a 16% reduction in blood glucose and a 30% index HOMA- IR. No cases of liver toxicity of the drug or an increase in AST.





**Conclusions.** Pioglitazone improves insulin sensitivity, reduces the level of liver enzymes, the severity of fatty liver disease and the index HOMA-IR.

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**INDICATORS IMMUNOINFLAMMATORY PROCESSES IN**  
**PATIENTS STRUGGLING WITH BOTH STABLE ANGINA PECTORIS**  
**AND OBESITY**

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**Introduction.** Obesity is one of the main risk factors provoking cardiovascular disease. To comprehend the mechanisms of obesity, we can study the effect of adipose issue on the cytokine activity.

**The purpose:** Examine indicators immunoinflammatory processes in patients struggling with both stable angina pectoris and obesity.

**Material and Methods.** The researcher examined 48 patients, 28 of them struggling with both stable angina pectoris (SAP) and obesity, and 7 patients with SAP and overweight. The control group was - 13 people. The study was based in the Kharkiv Clinical Hospital №27. The immunoassay kit produced by "Ukrmedservis" Ltd. (Ukraine) was used for the investigation of TNF- $\alpha$ , IL-4 parameters.

**Results.** The level of TNF- $\alpha$  for patients struggling with SAP and overweight laid within the range 42,83-58,76 pg/ml, averaging  $51,21 \pm 4,04$  pg/ml, which significantly ( $p < 0,01$ ) differed from the level of healthy people-  $41,4 \pm 8,6$  pg/ml. The average level for people with SAP associated with obesity was  $60,73 \pm 5,25$  pg/ml ( $p < 0,05$ ) that went beyond the control point. The level of IL-4 for all patients with both SAP and overweight reduced to the range of 12,4-19,13 pg/ml, averaging  $15,17 \pm 1,46$  pg/ml ( $p < 0,01$ ), thus being no different from the control value of  $18,25 \pm 1,75$  ( $p > 0,1$ ). The level of IL-4 for the patients struggling SAP in the presence of obesity went down to the range of 11,62-16,31 pg/ml, averaging  $12,66 \pm 1,89$  pg/ml ( $p < 0,05$ ), that is, to the level significantly ( $p < 0,01$ ) lower than the control value.

**Conclusion.** Hence, the activation of inflammation in the presence of obesity causes vast changes in the level of inflammatory and anti-inflammatory cytokines which is reflected by the severity of the disease, with the mechanism of its development remaining speculative.

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**MAGNESIUM OROTATE IN THE TREATMENT OF CHRONIC**  
**HEART FAILURE**

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**Background.** Results of a multicenter study indicated that 40% of patients have a magnesium deficiency. Macro-and micronutrients are an important group of pharmacological agents which successfully used for the treatment and prevention of cardiovascular disease.