treatment with lornoxicam. Positive effect achieved by intramuscular administration of the drug. 3 patients with a disease period of more than 10 years had the initial intramuscular treatment combined with a single intravenous administration.
Conclusions. The use of lornoxicam eliminates acute pain caused by gouty arthritis within 4-6 days of treatment at a dose of 16 mg per day. Administration of lornoxicam intramuscularly twice daily at a dose of 8 mg with 8 hours intervals provides guaranteed pain relief in acute gouty arthritis.

THE CONTRIBUTION OF PRO-INFLAMMATORY INTERLEUKIN-6 IN THE DEVELOPMENT OF CARDIOMYOPATHY IN TYPE 2 DIABETES IN PATIENTS WITH INCREASED BODY WEIGHT

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Introduction. According to statistics from the World Health Organization, the number of patients with diabetes has increased 4 times and continues to grow steadily. Hyperglycemia causes an increased risk of cardiovascular disease, including myocardial pathology, regardless of concomitant vascular causes.
The development of cardiomyopathy (CMP) in patients with type 2 diabetes mellitus (DM-2), especially those with increased body weight, is determined by changes in the metabolism of visceral adipose tissue, which increases the level of factors that increase insulin resistance - tumor necrosis factor-α, interleukin-6 (IL-6) and others.
The aim of the study. Was to determine the effect of IL-6 on the formation of CMP in patients with DM-2 with normal and overweight.
Materials and methods. The study is a fragment of research of the Department of Internal Medicine № 3 and endocrinology of KhNMU "Diabetes mellitus and problems of comorbid pathology". We examined 102 patients with DM-2 (duration of diabetes from 1 to 9 years without severe diabetic complications). The control group consisted of 20 healthy volunteers, comparable in age and gender.
In all patients and controls, body mass was measured, height was measured, and body mass index (BMI) was calculated. The content of IL-6 was determined by ELISA using Vector-Best reagent kits. An echocardiographic method was used to measure diastolic function of the left ventricular myocardium as a marker of myocardial lesion in diabetes. The maximum peak of diastolic filling was determined with rapid filling of the left ventricle E, the maximum peak of the rate of atrial filling of the left ventricle during left atrial systole A, and the E/A ratio.
Results. The first group included patients with DM-2 and BMI below 24.99 kg/m^2 (n=20). Patients with BMI above 25.0 kg/m^2 were allocated to group 2 (n=82). IL-6 (pg/ml) in the control group was 8.83±0.22; in the 1st group - 10.02±0.26; in group 2, 13.78±0.24 and significantly differed in groups (p≥0.05). The indicator E (ms) in the control group was 0.71±0.01; in the 1st group 0.63±0.01; in the 2nd group 0.58±0.006. The E/A ratio in the control group was 1.4±0.075; in the 1st 0.94±0.03, in the 2nd - 0.81±0.022 and differed significantly in the groups (p≥0.05). A correlation between the level of proinflammatory IL-6 and the E/A ratio was found in patients in group 2 (R=-0.285 (p≥0.05)). No significant correlations were found in patients of group 1 and healthy volunteers.
Conclusion. Adipokine IL-6 as a mediator of inflammation contributes significantly to the development of diastolic dysfunction, which is the primary link in the pathogenesis of heart failure in patients with DM-2.
The data of our study confirm the effect of IL-6 on the formation of CMP in patients with DM-2 and require further in-depth study of this problem.

THE EFFECTS OF FINIFIBRATE IN PATIONS WITH DIABETIC NEPHROPATHY

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Relevance. It is known that disorders of lipid metabolism in patients with diabetic nephropathy (DN) lead to decreasing of kidney function and increasing risk of cardiovascular disorders. According to a number of studies, low high-density lipoproteins and increased level of triglycerides are independent risk factors in the general population.
Purpose of the study. Evaluate the potency of fenofibrate in the treatment of patients with diabetic nephropathy.
Materials and methods. 47 patients with DN and dyslipidemia were divided into 2 groups. Patients in the first group (19 women and 7 men, 57.4 ± 2.3 years old) were treated with basic therapy. In the second group (12 women and 9 men, 52.8 ± 1.4 years old), fenofibrate was additionally prescribed at a dose of 145 mg per day for 6 months. Doppler ultrasound of the kidneys and heart was performed to evaluate the results of treatment (Evaluation of treatment outcomes were conducted on the results of Doppler ultrasound of the kidneys and heart)
Research results. Based on the results of patient's treatment who were receiving basic therapy, proteinuria level significantly decreased from (0.156 ± 0.070) g / l to (0.070 ± 0.029) g / l (p <0.05). In the group of patients receiving fenofibrate, protein loss with urine decreased from (0.28 ± 0.058) g / l to (0.059 ± 0.030) g / l per day and was statistically significantly lower than in the first group (p <0.05) . Conducting an ultrasound examination in patients in this group showed a significant decrease of the renal vascular resistance (RI) index from (0.75 ± 0.050) to (0.63 ± 0.050), (p <0.02), and a tendency of improving transmitral blood flow, namely, a decrease of IVRT from (105,436 ± 2,040) ms to (93,270 ± 4,029) ms (p <0.05) and an increase of the Ve: Va correlation from (0.854 ± 0.025) to (1.250 ± 0.040), but this was not statistically significant (p = 0.062). These effects of fenofibrate can be explained by the following: fenofibrate is an agonist of the activated peroxisome proliferator (PPAR). It was found that both PPAR and cytochrome P450 4A are expressed in the proximal tubules of the kidneys. Treatment with PPAR agonists increases the content of cytochrome P450 4A protein and the production of 20-hydroxyarachidonic acid, and thus, fenofibrate can improve blood flow, restoring the action of cytochrome P450-dependent arachidonic acid hydroxylase.

Conclusions. Received data might indicate the availability of mediated nephroprotective and cardioprotective effects of fenofibrate in addition to it's direct effect on decreasing triglycerides and high density cholesterol.

THE VALUE OF VITAMIN D IN PATIENTS WITH OSTEOARTHRITIS AND TYPE 2 DIABETES MELLITUS

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Actuality. At present, great importance is attached to the problem of comorbidity. There is a high incidence of combined pathology – osteoarthritis (OA) and type 2 diabetes mellitus (T2DM), especially in the older age group. At the same time, there are many studies that focus on the development of OA on the background of disorders of bone metabolism.

Purpose. To determine the level of vitamin D in patients with OA and with the combination of OA and T2DM and its effect on the course of OA.

Materials and methods. In total, 50 patients were examined at rheumatology and endocrinology departments in the Kharkiv Regional Clinical Hospital. All patients were divided into 2 groups. Group 1 - 20 patients with OA, group 2 - 20 patients with combined course of OA and T2DM. The mean age of the patients was 56.08±0.71. The survey plan included anthropometric data, global knee pain [visual analog scale (VAS)], the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), C-reactive protein (CRP). All patients with OA were made X-ray examination of knees. Determination of vitamin D level was done by ECLIA.

Results. We determined statistically significant association of the degree of functional insufficiency of the joints with increasing of complexity of diagnosis ($p<0,05$). Thus, the indices of WOMAC Pain score and WOMAC stiffness were similar in both groups, but the indices of WOMAC physical function subscore were significantly higher in patients with combined course of OA and T2DM ($p<0.05$). The level of vitamin D was statistically significant less patients with isolated OA (29.05±5.18) compared to the group of patients with comorbid pathology (36.2±5.21, $p<0.05$). We didn`t find any statistically significant correlations between the level of vitamin D and radiological changes and the indices of WOMAC in patients with isolated OA. In 2nd group of patients we determined moderate statistically significant negative correlations between the level of vitamin D and WOMAC stiffness ($r=-0.41$; $p<0.05$) and WOMAC physical function subscore ($r=-0.51$; $p<0.05$). We level of CRP in 2nd group was higher (14,61±1,99) compared to the group of patients (11,4±1,79), but this difference wasn`t significant. We determined moderate negative significant correlation between the level of CRP and the level of vitamin D in both groups of patients ($r=-0.43$; $p<0.05$, $r=-0.35$; $p<0.05$ respectively).

Conclusions. The study indicates that changes in bone metabolism are observed in groups of patient with OA and the combined course of OA and T2DM, in particular a significant decrease in vitamin D. A reliable association of vitamin D with the WOMAC index indicates a possible effect of bone metabolism disorders on the progression of OA in patients with comorbid pathology.

EFFECT OF IL-1β AND RESISTIN ON DEVELOPMENT OF CARDIOMYOPATHY IN TYPE 2 DIABETES

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Rationale. Type 2 diabetes occurs when our body becomes resistant to insulin and pancreas produce more insulin to compensate and later pancreas becomes decompensated. Type 2 diabetes is major risk factor for cardiovascular disease.

Purpose. was to determine the effect of interleukin-1β (IL-1β) and resistin to development of cardiomyopathy (CMP) in patients with diabetes mellitus (DM) type-2.

Materials and methods. Our work is part of study of the Department of Internal Medicine and Endocrinology № 3 Kharkiv National Medical University (Diabetes mellitus and co-morbid pathology). An analysis of the survey data was performed with 102 patients with type 2 diabetes with disease duration from 1 to 9 years. Depending on the degree of CMP, patients were divided into groups: group 1 (n = 38) - with moderate CMP expression, significant distribution factor was body mass index (BMI) of less than 28.5 kg/m², group 2 (n = 64) - with severe CMP expression and BMI of more than 28.5 kg/m². The control group consisted of 20 healthy individuals.

The levels of resistin and IL-1β in serum was determined by ELISA according to standard instructions. Statistical analysis of the results was carried out Statistica 7.0.

Results. The levels of IL-1β (pg/ml) in the blood serum of patients with DM type 2 of the 1st and 2nd groups (11,34 ± 0,25 and 14.76 ± 0.28 respectively) were higher ($p <0 .05$) compared to the control group (8,12 ± 0,24). Resistin levels in patients of the 2nd group (13,19 ± 0,18, ng/ml) was significantly higher than in patients of the 1st group (10,51 ± 0,25, ng/ml, $p <0.05$) and control group (10,06 ± 0,35, ng/ml, $p <0.05$). significant correlations was found between the levels of IL-1β and resistin in patients of the group 1 ($R = +0,589$, $p = 0,00010$), and patients in group 2 ($R = + 0,450$, $p = 0,00019$).

Conclusions. The levels of IL-1β and resistin were significantly higher in patients with severe cardiomyopathy. The presence of relationship between Resistin and IL-1β can demonstrate the interaction and influence on the formation of diabetic myocardial damage of these cytokines.

Thus in patients with type 2 diabetes with a BMI of more than 28.5 kg/m2 and increased levels of pro-inflammatory IL-1β and resistin is an additional risk factor for the formation of diabetic CMP, which is a precursor to heart failure.