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## HYPERHOMOSYSTEINEMIA AND CARDIOVASCULAR RISK PROFILE IN ISCHEMIC HEART DISEASE AND ACID PEPTIC DISEASE COMORBIDITY PATIENTS

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**Rationale.** The study of common pathogenic mechanisms of comorbid course of ischemic heart disease (IHD) and acid related disorders (ARD) is an actual problem of modern medicine in terms of prevention of cardiovascular complications.

**Aim of the study.** To optimize the tactics of diagnosis and treatment of IHD when combined with the ARD of the gastrointestinal tract on a background of a long systemic intake of proton pump inhibitors (PPI).

**Material and methods** To examine the effects of vitamin B supplementation on cardiovascular risk, we conducted a randomized study: 102 patients were examined, including 34 patients with isolated IHD, 33 patients with isolated ARD and 35 patients with comorbid pathology.

**Results.** It was found that in patients with comorbid pathology were registered significantly lower levels of cyanocobalamin ( $237,1 \pm 17,41$  pg / ml) and higher levels of homocysteine ( $22,8 \pm 1,78$  mmol / l) in blood plasma compared to the patients with isolated IHD ( $662,5 \pm 45,80$  pg/ml;  $11,9 \pm 0,65$  mmol/l,  $p < 0,05$ ). Hyperhomocysteinemia contributed to the development of atherogenic types dyslipoproteinemia. Comorbidity for coronary heart disease and acid disorders accompanied by probable ( $p < 0,05$ ) increase in plasma levels of total cholesterol and low-density lipoproteins against decrease in high-density lipoproteins cholesterol levels compared to the isolated IHD (6.3%, 9.1% that 8.3%, respectively,  $p < 0,05$ ).

The complex therapy that includes parenteral B<sub>12</sub> supplementation leads to more effective correction of hyperhomocysteinemia (26,1%,  $p < 0,05$ ) and dyslipidemia (total cholesterol - 14,9%,  $p < 0,05$ ; low-density lipoproteins - 22,3%,  $p < 0,05$ ), relative to the complex therapy without vitamin B<sub>12</sub>.

**Conclusion.** Our results suggest that complex ischemic heart disease therapy combined with vitamin B<sub>12</sub> (but not vitamin B<sub>12</sub> alone) may reduce serum lipids and hyperhomocysteinemia in patients with comorbidity of IHD and ARD with long-term use of PPI more effective.

## ADMINISTRATION OF L-CARNITINE IN PATIENTS SUFFERING FROM CHRONIC PANCREATITIS WITH UNDERLYING OBESITY

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**Introduction.** Sickness rate of obesity has been 57% increased in recent years, and it occurs in 80% of endocrine patients. Prevalence of chronic pancreatitis (CP) in patients with obesity constitutes from 45% to 80%.

**Objective:** to investigate the effect of L-carnitine on clinical manifestation of CP in patients with obesity.

**Materials and methods:** 60 patients suffering from CP of a mixed etiology, painful form, relapsing course in the phase of a moderate exacerbation with I degree of obesity have been examined. To define the efficacy of treatment two representative groups were formed. The control group (1K) received low-calorie diet, anti-secretory (proton pump inhibitor), spasmolytic agents during 1 month, and polyenzymatic (kreon 10-20 000 UN), hypolipidic (atorvastatin 20-40 mg) medicines during 90 days. The main group also received a drinkable L-carnitine (steatel) per 1,0 (10 ml) twice a day during 90 days.

**Results of the study:** analysis of the suggested therapy effect for the patients with CP (O group) on the course of the diseases compared to K group revealed improved general condition, reduced signs of asthenic-vegetative, intoxication syndromes, dyspeptic signs in patients of O group on the 4-

5 day, while in patients from K group—only on the 10th day. 2 weeks after initiation of therapy asthenic-vegetative syndrome of rather low intensity was found only in 3 persons (10,0%) of O group, while in K group it remained in 11 patients (36,7,0%).

**Conclusion:** the application of L-carnitine in the treatment of patients with chronic pankreatitis and obesity promotes more rapid achievement of chronic pankreatitis' clinical remission, optimizing the lipid spectrum of the blood and reducing the inflammatory swelling of the pancreas.

## CARDIOVASCULAR COMPLICATIONS MARKERS IN HYPERTENSIVE PATIENTS WITH TYPE 2 DIABETES MELLITUS

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**The increase** of blood pressure (BP) is the main risk factor of cardiovascular complications (CVC) for patients with type 2 diabetes mellitus (DM). There are also other markers of these complications such as glycated hemoglobin (HbA1c), dyslipidemia, characterized by atherogenic index (AI).

The aim of our study was the determination of connection between markers of cardiovascular complications (CVC) for patients with type 2 DM and AH.

**Participants and methods.** We involved 147 patients, treated in Sumy City Clinical Hospital № 1, in our clinical trial. They were divided in two groups. Patients from the first (I) group had the AH and concomitant type 2 DM. Persons from the second (II) had only AH. There are 87 patients in the I group and 60 persons in the II. The patients were more than 45 years old. The duration of type 2 DM was (11±0,53) years old.

The levels of HbA1c, general cholesterol (GCH) and different fractions of lipoproteins such as lipoproteins with high density (LPHD), lipoproteins with low (LPLD) and very low density (LPVLD) are obtained in blood serum. The atherogenic index was calculated with the help of mathematic method ( $AI = GCH - CH LPHD / CH LPHD$ ).

Student criteria (t) and the veracity of differences (p) are used for assessment results.

**Results.** The mean levels of HbA1c were (6,8±0,21)%, (4,2±0,43)%,  $t = 5,43$ ,  $p < 0,001$  for participants from the I,II groups respectively. The mean levels of AI were (3,8±0,04), (3,1±0,02),  $t = 15,65$ ,  $p < 0,001$  for participants from the I,II groups respectively. The levels of systolic BP were (156±0,45)mmHg, (143±0,66)mmHg,  $t = 16,27$ ,  $p < 0,001$  and of diastolic – (105,3±0,6)mmHg, (94±0,43)mmHg respectively for patients with combination of AH and type 2 DM and for persons with AH. The higher levels of BP, HbA1c and more severe dyslipidemia are the characteristics of patients with AH and type 2 DM in comparing with hypertensive persons.

**Conclusions.** There is the connection between factors of CVC such as AI, HbA1c, systolic and diastolic BP for patients with AH and type 2 DM. It is very important to define these markers for preventing end points and for improving treatment.

## X-ray STRUCTURE CHARACTERISTIC OF DIABETIC OSTEOARTHROPATHY ON THE EARLY STAGES

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**The aim** of this paper is to study structural peculiarity of the bone on the early stages of diabetic osteoarthropathy.

**Materials and methods.** Total of 67 patients with type 1 and 2 diabetes, who had diabetic foot 0-III stage by Wagner's classification, and the normal body mass index were included in the study. There were two groups of patients: 1 group included 33 patients with the duration of diabetes up to 10 years, 2 group – 34 patients with the duration of diabetes more than 10 years. The control (0 group) included 30 practically healthy persons. The bone system investigation was done by the