

72 patients were randomized into 2 groups: A – experimental group – 40 patients with CAD (stable angina of physical exertion) with comorbid COPD (groups B and C) and B – control group – 32 patients with CAD without COPD in anamnesis.

Frequency of angina attacks was significantly higher and its duration was significantly longer in the patients of experimental group ( $p<0,05$ ). All patients of experimental group (100%) used nitroglycerin to reduce pain during angina attack. In control group only 12 patients (37,5%) used short-acting nitrates for angina attack treatment, those who took them needed significantly less daily dose than patients of the experimental group ( $p<0,05$ ). Comorbid COPD resulted in prolongation of patients' hospital treatment due to CAD and increasing of frequency of their hospitalization during the year ( $p<0,05$ ).

So, COPD aggravates the clinical course of CAD as it leads to the increased frequency of the angina attacks, increased need for nitrates during the attack, such patients are hospitalized more frequently due to exacerbation of the main disease and duration of their hospital treatment is longer.

## **GLUCOCORTICOID FUNCTION OF ADRENAL GLANDS IN PATIENTS WITH CHRONIC HEART FAILURE, DIABETES MELLITUS TYPE 2 AND ANEMIA**

**Pavliukovych N., Pavliukovych O.**

*Bukovinian State Medical University,*

*Chernivtsi-city, natasha.pavlyukovich@gmail.com*

Progression of chronic heart failure (CHF), anemia and diabetes mellitus type 2 (DM) is determined by activation of neuro-humoral systems as a response to chronic stress impact. Our investigation aimed at determining of cortisol levels in patients with CHF, DM and anemia.

40 patients with CHF with DM and anemia of different degrees of severity were under investigation. Control group comprised 12 patients with CHF without comorbid pathology.

Cortisol level in control group was  $390,8\pm 52,67$  nmol/l being within physiological norm. Significant changes of glucocorticoid function of adrenal glands in case of comorbid course of CHF and DM were not found (cortisol content was  $476,7\pm 39,11$  nmol/l ( $p>0,05$ )). In patients with CHF and anemia cortisol content was 2,02 times higher ( $p<0,05$ ) and was  $966,2\pm 66,51$  nmol/l. In case of CHF, DM and anemia cortisol content in blood was slightly lower ( $897,4\pm 8,43$  nmol/l), which differed significantly from control group ( $p<0,05$ ) and patients with CHF and DM without anemia ( $p<0,05$ ).

Thus, both in patients with CHF and anemia, same as in case of CHF and anemia, complicated by DM, activation of glucocorticoid function of adrenal glands occurs due to hypoxia as a stress factor at anemia and CHF.

In case of CHF and DM with comorbid mild anemia statistically significant increase of cortisol content in serum was found in 2,07 times ( $p<0,05$  compared to

patients with CHF and DM). As severity of anemia increased, progressive depletion of glucocorticoid function of adrenal glands was observed due to cortisol content decreasing by 26% ( $p < 0,05$  compared to patients with CHF, DM and mild anemia).

Perspectives of future investigations are connected with finding out of possible ways of the pharmacological correction of the revealed changes.

## **FREQUENCY AND CHARACTERISTICS OF ANEMIC SYNDROME IN PATIENTS WITH CHRONIC HEART FAILURE**

**<sup>1</sup>Kozar M.F., <sup>2</sup>Pavliukovych N., <sup>2</sup>Pavliukovych O.**

*<sup>1</sup>Chernivtsi Regional Hospital for Second World War Veterans,*

*<sup>2</sup>Bukovinian State Medical University,*

*Chernivtsi-city, natasha.pavlyukovich@gmail.com*

It is known that decreasing of hemoglobin (Hb) level below 12 g/dL is accompanied by progression of chronic heart failure (CHF). Aim of our study was to find out frequency and origin of anemic syndrome (AS) in patients with CHF.

We analyzed 2056 case records of hospitalized patients with CHF. AS was diagnosed in case of Hb below 130 g/dL in males and below 120 g/dL in females (WHO, 2003). Among all examined patients AS was found in 69,21% (1423 cases), which corresponds to the literature data. Among MALE patients AS was diagnosed in 1147 cases (76,22%), in females – in 276 cases (49,19%). We found out that in patients after 45 years anemia is more frequent in males than in females. Only in rare cases anemia was documented as a separate diagnosis (2,81% in case of mild anemia, 50% in case of moderate anemia, 65,8% in case of severe AS). Hyperchromic anemia (MCH > 33 pg) was diagnosed in 23 patients (1,62%), hypochromic anemia (MCH < 27 pg) – in 128 patients (8,99%); in most cases AS was of normochromic character (1272 patients, 89,39%). Mild macrocytosis (MCV 95-108) was found occasionally (19 cases, 1,34%), microcytosis (MCV < 80) – in 163 cases (11,45%), normocytosis – in 1241 patients (87,21%).

Therefore, AS is comorbid to CHF in 69,21% of patients, predominantly in males. In most patients with CHF concomitant anemia is normochromic and normocytic, which requires further investigation of its etiology for an adequate correction of hemoglobin level.

## **DEVELOPMENT FEATURES OF CARDIOVASCULAR SYSTEM DISORDERS UNDER THE INFLUENCE OF CONCOMITANT STREPTOCOCCAL TONSILLITIS**

**Karaniaha A.O., Hryniuk O.Y., Khukhlina O.S.**

*Bukovinian State Medical University,*

*Chernivtsi-city, karaniaha.anastasiia.mf1@bsmu.edu.ua*

Disorders of the cardiovascular system, which are etiologically associated with acute and chronic tonsillitis and nasopharyngitis, which by the way occur quite often