Studies of bronchial cholinergic tone regulation and that of the gallbladder in patients with combined course of chronic acalculous cholecystitis (CAC) and chronic obstructive pulmonary disease (COPD) are especially topical.

92 patients were involved in the study: 30 patients with COPD (1st group), 30 patients with COPD and comorbid CAC in the acute phase (2nd group), 32 patients with CAC in the acute phase (3rd group) and a control group – 30 practically healthy individuals (PHI) of the respective age.

All the patients with COPD and COPD combined with CAC had a marked predominance of the parasympathetic nervous system, as evidenced by the established reliable decrease of the activity of the blood acetylcholinesterase in patients with isolated COPD by 1.4 times ($p<0,05$), in patients with COPD combined with CAC – there was more intense inhibition of enzyme activity – by 1,8 times ($p<0,05$) and in patients with CAC of the 3-rd group there were identical changes – a decreased activity of the blood acetylcholinesterase by 1,6 times ($p<0,05$) with reliable intergroup difference between the groups ($p<0,05$).

The indicator that contributes to the development and progression of chronic obstructive pulmonary disease with concomitant chronic acalculous cholecystitis is the presence of a pronounced cholinergic imbalance, one of the manifestations of which is a significant reduction in the activity of the blood acetylcholinesterase.

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## MONOTHERAPY WITH ANGIOTENSIN-CONVERTING ENZYME INHIBITORS AND COMBINED ANTIHYPERTENSIVE THERAPY IN PATIENTS WITH DIABETIC NEPHROPATHY: RETROSPECTIVE STUDY

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Diabetes and hypertension affect heart, kidneys, brain and blood vessels of the retina. End-stage renal disease with a combination of these pathologies is the commonest cause of disability and mortality.

The aim was to compare the efficiency of monotherapy with ACE inhibitors at high doses and combination therapy (ACE inhibitor and moxonidine or ACE inhibitor and indapamide) in patients with hypertension on the background of diabetic nephropathy.

We analyzed 68 clinical records and 34 blood pressure diaries. The first group of patients is represented by 16 patients who received only ACE inhibitor (enalapril or lisinopril) at a dose of 20-60 mg/day, the second group includes 27 patients treated with the combination of enalapril or lisinopril (10-20 mg/day) with moxonidine (3-4 mg/day), the third group is represented by 25 patients treated with the combination of ACE inhibitors (as in the second group) and inadapamide at a dose of 1.5 mg/day.

The more significant effect was proved in the second group (blood pressure after treatment was 130 ± 4 (systolic) and 85 ± 3 mm Hg (diastolic) vs. 136 ± 4 and 88 ± 2 in the first group and 133 ± 3 and 80 ± 2 in the third group ($P<0,05$), respectively, and we found out a positive effect in the second group on the heart rate (70 ± 3 beats/min in the second group vs 80 ± 6 in the first group and 83 ± 4 beats/minute in the third group ($P<0,05$)), which positively changed quality of patients' life. The use of combined therapy with ACE inhibitors and moxonidine in patients with diabetic nephropathy demonstrates higher clinical efficiency and a favorable safety profile.

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## ANCYLOSING SPONDYLOARTHRITIS AND ASSOCIATED COMORBIDITY

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Ancylosing spondyloarthritis (AS) is a chronic inflammatory rheumatic disease affecting primarily the axial skeleton and the sacroiliac joints. AS can be associated with peripheral joint involvement and may also be accompanied by the presence of extra-articular manifestations. AS is associated with comorbidities, accompanying pathologic process, and adds the complexity to the management and strategies of treatment. Understanding of these comorbidity profiles will help to evaluate the impact of comorbid conditions on AS clinical course.

We have evaluated comorbidity and its association with clinical parameters in 22 patients with AS (17 men and 5 women). Diagnosis of AS was based on *Modified New York Criteria*. Disease activity was estimated by Ankylosing Spondylitis Disease Activity Score (ASDAS), functional status by Bath Ankylosing Spondylitis Functional Index (BASFI) and spinal mobility by Bath Ankylosing Spondylitis Metrology Index (BASMI).

The survey of the results demonstrated that comorbidities were detected in 19 (86.4%) patients. Cardiovascular disorders (ischemic heart diseases, hypertonic diseases, heart insufficiency), gastrointestinal diseases (chronic gastroduodenitis, peptic ulcer, bowel irritations disorders), hepatobiliary diseases (chronic persistent hepatitis, noncalculous cholecystitis, chronic pancreatitis), lung problems (chronic bronchitis) prevailed in comorbidity profile. Diabetes mellitus (2 patients), osteoporosis (3 patients), anemia of chronic diseases (3 patients), kidney disorders (nephrolithiasis) – 1 patient were diagnosed in patients. The number of comorbid diseases in the age group up to 40 years was within 2-4, 40-50 years - 5-6 diseases.

Patients with comorbidities had significantly higher scores in ASDAS, BASMI, BASFI. The frequency of comorbidities was higher in the patients with peripheral joints involvement and associated with more active disease and functional impairments, depending from age, duration of disease. The growth of comorbidity caused a more severe and

torpid course of AS, required the coordination of the medicines' compatibility and complicated the realization of complex treatment of AS and comorbid disorders.

Therefore, comorbid pathology should be detected and treated earlier in order to reduce its negative impact on disease outcome, to provide better control of the AS activity and prevent possible complications.

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## COMPLEX HEART RATE CONTROL IN PATIENTS WITH ACUTE CORONARY SYNDROME

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One of the main factors influencing a short-term and remote prognosis of patients experienced acute myocardial infarction is heart rate. Administration of Ivabradine decreases HR at the expense of inhibition of electric activity of the sinoatrial node (Keith-Flack node) resulting in reduction of heart rhythm, increase of diastolic time during perfusion as a result of decreased oxygen supply to the myocardium without any harmful changes – arterial pressure values, coronary blood supply and contractile capacity of the myocardium. 135 patients with ACS were included into the study. The possibility to improve treatment and clinical-prognostic role of ACS reduction was assessed with administration of Ivabradine. Pharmacological therapy correlated with the national recommendations concerning management of patients with ACS. The rates of HR, BP, ECG indices were assessed after admission to the hospital: during an acute period (on the 2- 4 th day, the 3rd day on an average), during subacute period (on the 14th day) of staying in the hospital. The patients were divided into two groups: the one included patients receiving Bisoprolol with the aim of control HR (group I, 93 patients), and another one - patients receiving Bisoprolol in combination with Ivabradine (group II, 42 patients). Analysis of the main parameters of the clinical-instrumental examination was not indicative of reliable differences between the patients of the examined groups at the beginning of treatment. The target levels of SP and DP were achieved in all the patients of the examined groups. The patients with complicated course of ACS (subgroup A) demonstrated reliably lower decrease of HR, than those without variant angina and/or relapse of MI (subgroup B) during all the stages of the hospital investigation. Similar dynamics of HR changes can be found in both groups of HR correction. Maximal decrease of HR was found since the first days of the study, which was similar for both groups in comparison. Considering selective decrease of HR without loss of the myocardial contractility, Ivabradine can be recommended as an effective agent to treat ACS without decrease of ejection fraction.

Monotherapy with Bisoprolol is indicative of an effective control of the heart rhythm in patients with ACS, but after a combined therapy with Ivabradine and Bisoprolol better results were found during the first 3-4 days of treatment. Insufficient decrease of HR in patients with ACS during the first 3-7 days of hospitalization is associated with an increased risk of post-infarction angina or relapse of myocardial infarction.

**Hontsariuk D.O.**

## COMBINATION OF CHRONIC PANCREATT WITH ISCHEMIC HEART DISEASE; DIAGNOSTIC VALUE OF C-REACTIVE PROTEIN AND CITOKIN LINK

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The purpose and tasks of the study. To evaluate the role of C-reactive protein (CRP), proinflammatory cytokines, interleukin 1β, tumor necrosis factor-alpha (FNP-α), type 1 vascular endothelial adhesion molecule in comorbidity with chronic pancreatitis for coronary heart disease as a marker of chronic systemic inflammation, which is a unifying mechanism in their flowing.

We examined 40 patients with chronic pancreatitis (Group I), 40 patients with comorbidity of chronic pancreatitis with ischemic heart disease (II group). To study the characteristics of the chronic low-intensity generalized inflammatory reaction, levels of CRP, IL-1β, TNF-α and sVCAM-1 were determined using the immunoassay method.

In patients with a comorbidity of chronic pancreatitis with ischemic heart disease (IHD), significant hyperproduction of proinflammatory cytokines (interleukin1β, tumor necrosis factor, sVCAM-1 and CRP compared with the isolated course of chronic pancreatitis and results in practically healthy individuals as shown in Table ) was established.

Table

The content of C-reactive protein (C-RB), interleukin-1β (IL-1β), tumor necrosis factor alpha (TNF-α), vascular endothelial adhesion molecule (VCAM) in the serum of the examined individuals. (M ± m)

| Indicators | Practically healthy (n=20) | Patients with chronic pancreatitis (CP) (n=40) | Patients with CP with concomitant IHD (n=40) |
|---|---|---|---|
| CRP (mg/ml) | 1,13±0,35 | 2.37±0.11* | 7.31±0.37*/**/ |
| TNF-α (pg/ml) | 4,12±0,17 | 5.86±0.14* | 6.83±0.28*/** |
| IL-1β (pg/ml) | 8,63±0,54 | 24,11±1.82* | 31,57±1,05*/**/ |
| sVCAM-1 (ng/ml) | 368,3±20.21 | 791.18±27.68* | 1220.83±39,46*/** |

Notes: * - the reliability of the difference (p <0.05) as compared to those of practically healthy individuals; ** - reliability of difference (p <0.05) in comparison with the indices in patients with CP.