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**BLOOD PRESSURE CHANGES UNDER THE ACTION OF STRESS FACTORS IN THE AGE ASPECT IN PATIENTS WITH STABLE ANGINA PECTORIS AGAINST A BACKGROUND OF METABOLIC SYNDROME**

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The decrease of the life expectancy of the Ukrainian population is largely due to the high mortality from diseases of the circulatory system (DCS). According to statistics, DCS growth rates for the previous and recent years have doubled (from 21 to 41%). The first places in terms of the incidence rate are arterial hypertension (AH) and coronary heart disease (CHD), the increase of which was in the last 5 years, respectively, 69.8 and 48.1%, the prevalence of AH and CHD increased by 27.2 and 29.1%. Since the end of the 70s of the XX century, the subject of the debate is the hypothesis that people with an increased reaction to stress in the form of significant increase of arterial pressure (AP), accelerated heart rate and other cardiovascular reactions have an increased risk of chronic AH development.

Objective of research: to study changes in the physiological parameters of blood pressure under the influence of physical and psychoemotional loads, depending on the age.

We examined 60 patients with stable angina pectoris and the metabolic mature and elderly syndrome. The dynamics of blood pressure was studied with the help of round-the-clock monitoring of blood pressure by the AVRМ-04 apparatus (Hungary). The patients were divided into three groups: group I - patients with a significant increase of blood pressure mainly under the influence of physical activity; group II - patients with a significant increase of blood pressure, mainly under the influence of psychoemotional load; group III - patients in whom blood pressure was not significantly changed under the influence of physical or psychoemotional load. A detailed analysis showed that in the first group, the ratio of elderly and mature persons is 1:2, and in the second group, on the contrary, 2:1, in the third group the number of persons of mature and elderly age was almost the same.

The data obtained indicate that the highest rate of systolic blood pressure (SBP) per day was recorded in patients of group I ( $165,37 \pm 2,5$ ,  $p < 0,001$ ), which significantly differed from the similar value in group II ( $136,9 \pm 4,7$ ,  $p < 0,001$ ) and group III ( $129,6 \pm 8,2$ ,  $p < 0,001$ ). SBP max was significantly higher in the first group ( $184,32 \pm 9,05$ ,  $p < 0,05$ ) in comparison with this index in patients of the second group ( $177,9 \pm 10,4$ ,  $p < 0,05$ ). The same tendency was traced by SBP min ( $124,9 \pm 5,89$  vs.  $120,21 \pm 5,23$ ). The value of daytime SBP was also the highest in group I ( $168,73 \pm 3,23$ ,  $p < 0,05$ ), significantly differing from the same index in group III ( $144,47 \pm 1,1$ ,  $p < 0,05$ ). At night time, SBP in the first ( $154,32 \pm 5,37$ ,  $p < 0,001$ ) and in the second ( $157,76 \pm 2,58$ ,  $p < 0,001$ ) groups did not differ between themselves with a probable predominance in comparison with the third group ( $118,59 \pm 3,1$ ,  $p < 0,001$ ).

The diastolic blood pressure (DBP) value for all characteristics was the highest in group II of investigated persons. Attention is drawn to the fact that significant differences were recorded in terms of DBP min: group I -  $61,29 \pm 6,14$ , group II -  $63,58 \pm 7,06$ , group III -  $46,17 \pm 2,42$ . Thus, the revealed patterns indicate that the highest indicators of SBP were recorded in patients of group I, and the highest values of DBP - in group II.

Thus, under the influence of stress factors on the cardiovascular system the origin of arterial pressure disorders in patients with stable angina pectoris against a background of the metabolic syndrome is realized through various pathogenetic chains and has a certain dependence on the patient's age. The further carrying out of similar researches is actual, since it will allow to individualize prescription of adequate therapy.

**Mikulets L.V.**

**PERFORMANCE OF ANALYSIS OF RESPIRATORY FUNCTION IN PATIENTS WITH RHEUMATOID ARTHRITIS**

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In patients with rheumatoid arthritis (RA) in ~ 40% clinically evident extraarticular manifestation occur. Among factors, contributing to mortality, is interstitial lung disease (ILD), the most common subtype of lung involvement in RA. The risk of death among individuals with clinically evident RA-associated ILD is 3 times higher than that among RA patients without ILD. Recent studies have further demonstrated that even though the overall mortality rates in RA are declining, the rate of death due to RA-ILD has increased significantly. Pulmonary injury in patients with RA may be stipulated both by the disease itself and taking certain medications. Methotrexate, being the preparation of the first line in RA therapy, according to the literature data causes lung injury more often than other principal anti-inflammatory drugs. Only isolated works where the questions of lung damage at RA, particularly concerning the functional state of the respiratory organs at this nosology, are found in literature.

Aim of work was to explore the specific characteristics of the functional data of external respiration in patients with rheumatoid arthritis during the period of exacerbation.

39 patients with rheumatoid arthritis who were treated at the Rheumatology department of Municipal clinical hospital №3, Chernivtsi, were included into survey. The diagnosis was verified according to the criteria, proposed by ARA/EULAR (2010). Distribution of patients with RA as to the degree of activity was the following: I degree - 17



patients, II - 22. The average age was  $42 \pm 9.1$  years. The disease duration ranged from 2 to 12 years. To determine RA activity assessment of clinical (QPJ - quantity of painful joints, QSJ - quantity of joints with swelling, duration of morning stiffness) and laboratory (CRP - C-reactive protein, ESR - erythrocyte sedimentation rate) indices was used, DAS28 index was calculated, estimation of the functional health status (HAQ) was carried out as well. Determination of pain intensity was conducted by visual analogue scale (VAS). To study the mechanical properties of ventilation apparatus of lungs spirometry, determining flow-volume-hour relationships in the process of implementation of quite and forced respiratory movements, was conducted. Patients underwent general clinical, spirometric, radiological and laboratory investigation. Statistical data processing was performed using the PAST program.

Among RA patients under study ventilation violations were detected in 35.9%. Obstructive type of ventilation violation was found in 50.0% patients, restrictive type - in 28.9%, mixed type - in 21.4% patients. When analyzing spirometry data, depending on QPJ, the tendency to reduction of all respiratory volumes in patients with a large number of painful joints was revealed. The statistical reliability of the results was observed only by FEV1 (forced expiratory volume 1), PVR (peak volume rate), MEF75 (maximal expiratory flow at 75%), MEF50 indices. When analyzing spirometry and QSJ, VAS indices and the presence of signs of systemic rheumatoid inflammation the same clinical presentation was also found. However, when assessing the relationship of signs of activity and decrease in respiratory volumes, reliable changes were found only in relation to FEV1 index ( $p < 0.05$ ). When comparing the indices of spirometry depending on DAS28 value a reduction of fulminant indices of the respiratory volumes was found.

Thus, in patients with rheumatoid arthritis ventilation violations of obstructive type, which can indicate the presence of subclinical latency obliterative bronchiolitis in these patients, were observed. Analysis of the relationship of clinical rates of active rheumatoid arthritis activity and spirometry parameters showed a tendency to respiratory volumes decrease. However, statistically reliable differences were found only for FEV1 index.

**Mykytyuk O.P.**

#### **DEMOGRAPHIC, EPIDEMIOLOGICAL PECULIARITIES OF PATIENTS WITH OSTEOARTHRITIS OF CHERNIVTSI REGION**

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Osteoarthritis (OA) is a leading pathology among those ones affecting locomotor system in elder people. Epidemiological data including onset age, gender aspects, localization of afflicted joints, concomitant pathology in the target population of patients suffering from OA are important.

Data collection and summarization on onset age, gender aspects, localization of afflicted joints, concomitant pathology in patients with OA who were hospitalized to Rheumatological Department of 3<sup>rd</sup> City Clinical Hospital of Chernivtsi or Regional Clinical Hospital and agreed to participate in different research programs in 2009-2015 were the aim of present investigation.

Data of 270 patients were analysed. An average age of the examined patients with OA was  $54.9 \pm 12.8$  years. Duration of the disease ranged from 2.0 to 26 years, an average disease duration was  $8.04 \pm 6.61$  years. Females represented the majority of the target population, female:male ratio was 4:1. Frequency of joints affliction varied basing on their localization. Knee joints affliction was observed in 81.6% of patients with OA, degenerative changes of vertebral column were met in 38.4% cases, ankle joints - in 39.5%, hip joints - in 23.7%, shoulder joints - in 18.5%, elbow joints - 16.2%, wrist joints - 9.5%, interphalangeal joints of hands - 28.9%, and interphalangeal joints of feet had signs of OA in 2.6%.

In addition to OA, nearly all examined patients had concomitant pathology. 77.3% of investigated people had overweight or obesity. Gastrointestinal diseases were detected in 56.2%, cardiovascular pathology - in 79.2% of all cases (arterial hypertension and ischemic heart disease manifesting as diffuse myocardial sclerosis were prevalent ones). Endocrine disorders (diabetes mellitus, endemic goiter) were found in over 30%.

Physical overloading, especially under low temperature and increased humidity conditions was associated with OA in 62.8% cases. Systemic prolongation of working day or shift-work were reported by 29.1% patients. Traumatic injuries preceded OA development in 8% of the examined individuals. Marked relationship of OA onset to hormonal imbalance was detected in 53.4% of all females reporting occurrence of early symptoms of OA during climacteric period. 22.9% of patients reported presence of disease in their ancestors.

All the above mentioned data should be taken into account by researchers when planning clinical trials requiring involvement of patients with specific demographic and epidemiological profiles.

**Okipnyak I.V.**

#### **ROLE OF ECG HOLTER MONITORING IN DIAGNOSTICS OF SYNCOPE CONDITIONS**

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Electrocardiogram Holter monitoring (ECG HIM) is a convenient and informative non-invasive method of diagnostics, evaluation of clinical progression and treatment rates of cardiac rhythm disorders, cardiac conduction, and cardiac muscle ischemia. ECG HM results have important diagnostic meaning in identifying reasons of syncope conditions (SCs).