



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**

*Department of Propedeutics of Internal Diseases  
Higher State Educational Establishment of Ukraine  
"Bukovinian State Medical University"*

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**

*Department of Propedeutics of Internal Diseases  
Higher State Educational Establishment of Ukraine  
"Bukovinian State Medical University"*

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).



The objective of the study was to investigate ECG Holter monitoring efficiency in diagnostics of syncope conditions.

We have analyzed ECG HM results of 45 patients who had in their past medical history of syncope conditions or were examined concerning the occurrence of the condition and hospitalized at Municipal Establishment "City Clinical Hospital N 3" of Chernivtsi during the last five years. All the patients underwent ECG HM during 24 (66.7% of patients), 48 (22.2% of patients) and 72 (11.1% of patients) hours using DiaCard portable system, version 2.1.166 (manufactured by Solvaig, Hungary).

Having analyzed the results it should be noted that 18 (%) patients suffering from SCs were males, and 27 (%) patients were females. By their age the patients were divided into three groups: I group (young people - 18 to 44 years old) - 19 people (average age is  $22.6 \pm 2.98$  years); II group (middle-aged people - 45 to 59 years old) - 15 people (average age is  $49.7 \pm 3.13$  years); III group (seniors - 60 to 74 years old) - 11 people (average age is  $67.9 \pm 4.51$  years).

In 33.33% of cases the analysis of ECG HM was informative and comparable with clinical implications. In 6.67% of cases detected changes of ECG HM can only suspect possible cardiac reasons of the SCs, however, they do not provide a clear answer as to their origin. In 60% of cases ECG HM results were informative concerning SC reasons. It should be noted that for patients of the I age group afflicted sinus syndrome was one possible reasons of SC cardiac origin and tachycardia with heart rate of  $>150$  BPMs during monitoring. As it was found out in the course of further examination the latter was manifestation of thyroid diseases. In case of middle-aged patients most frequent reasons of SCs are delayed conduction of II-III degree and supraventricular tachycardia.

In the course of further diagnostic search 2 patients (10.53%) of I group were diagnosed with epilepsy, a reason of SC was vasovagal condition for 2 patients (10.53%), for the 1 patient (5.2%) - orthostatic hypotension. In case of 1 patient (6.6%) of the II age group SC reason was the progress of aortic stenosis for the last two years. In case of 2 patients (18.2%) of the III group SC reason was transitory ischemic attacks. In case of 14 (31.1%) of all the examined patients it was impossible to identify reasons of syncope conditions.

Thus, ECG HM is a compulsory examination method for patients suffering from syncope conditions. It is informative in diagnostics of cardiac reasons of SCs. Differential diagnostics is required to be made.

**Olinyk O.Ju.**

#### **COMPONENTS OF METABOLIC SYNDROME IN PATIENTS WITH RHEUMATOID ARTHRITIS**

*Department of Internal Medicine and Infectious Diseases*

*Higher State Educational Establishment of Ukraine*

*«Bukovinian State Medical University»*

Insulin resistance is an essential feature of the metabolic syndrome that has been linked to rheumatoid arthritis (RA). Understanding a thing how the inflammation that appears in one tissue affects the physiology and pathology of other organs remains the unanswerable question which has therapeutic effects for chronic conditions including obesity, diabetes mellitus, atherosclerosis, and RA.

The prevalence of metabolic syndrome (MS) among patients with rheumatoid arthritis is 37%, which almost corresponds to the prevalence of metabolic syndrome among patients with coronary heart disease - 41% and occurs with a greater frequency than in the population (10-30%).

Aim of the study was to investigate some criteria of MS (based on the criteria recommended by the International Federation of Diabetes, 2005) in patients with RA.

The study involved 30 patients with RA who were taken to a hospital to the rheumatology department of Chernivtsi regional clinical hospital. The control group consisted of 20 healthy individuals. The clinical examination of each patient included general clinical and special studies. To study the carbohydrate metabolism laboratory blood tests were performed with the determination of glucose level indicators as well as insulin level. The level of insulin resistance (IR) was calculated according to the HOMA-IR formula. The waist is measured by a ribbon on the navel.

An increased waist size (a central obesity type) in women  $> 80$  cm in men  $> 94$  cm was observed in 40% of women and 36.7% of men in patients with RA. In the control group - 25 and 20%, respectively ( $p < 0,05$ ).

The triglyceride serum level is elevated to  $\geq 1.7$  mmol / L ( $p < 0,05$ ) in 52% patients. IR is observed in 20% of patients with RA, diabetes type 2 by the glucose level increase of 3.3% without eating  $> 5.6$  mmol / l in 23.3% of patients with RA in the control group IP is 5% and the glucose level increase in blood by 10% ( $p < 0,05$ ).

The arterial hypertension ( $> 130/85$  mm Hg) and / or the use of antihypertensive therapy was found in 46.7% patients with RA and 10% in the control group ( $p < 0,05$ ).

The above-mentioned studies, represent small but significant achievements in order to understand a complex interaction between MS and RA. As reported, the prevalence of MS was significantly higher in patients with RA as compared to the general population. A combined course of the disease requires attention of specialist doctors to develop a differentiated approach to the metabolic syndrome prevention among patients with rheumatoid arthritis.