

СЕКЦІЯ 8
ГІГІЄНА СЕРЕДОВИЩА І ВИВЧЕННЯ НОВИХ АНТИМІКРОБНИХ РЕЧОВИН
В ЕКСПЕРИМЕНТІ І КЛІНІЦІ

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STUDY OF STRESS ADAPTATION AND CELL REACTIVITY IN MEN WITH RHEUMATOID ARTHRITIS

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Rheumatoid arthritis (RA) is currently treated as a chronic systemic disease of the whole body in the form of predominantly destructive arthritis. The disease is the cause of early disability and it causes significant social and economic losses from both the patient and society.

The etiology of the disease is not fully known. There is suggestion that cause is related with a failure of immune tolerance by chronic (often subclinical) infection of Epstein-Barr virus, Paramyxoviruses, Mycoplasma, Chlamydia in genetically susceptible to these pathogens persons or in defects of the immune system and factors of innate immune defense. Therefore, the study of adaptive stress of the patient with RA, and the degree of cellular responsiveness of patients with RA may extend knowledge of the pathogenesis of RA in men and improve diagnosis and treatment of the disease.

The aim of the study was to study the level of adaptive cellular stress and cell reactivity in male patients with RA in acute period (during hospitalization).

During 2014-2015 years there was conducted a prospective study with "case-control" design in 62 males, residents of Bukovina region. Clinical-laboratory and instrumental examination was passed by 32 men suffering from rheumatoid arthritis with varying severity. The control group consisted of 30 healthy men of similar age (23 to 62

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years). In RA patients there were conducted following laboratory tests: study of concentration of antistreptolysin-O, C-reactive protein, rheumatological factor, seromuroid, ALT, AST, sialic test, thymol test and others. To establish the level of adaptation and cellular stress reactivity in RA patients there was used automatic hematology analyzer of HB series.

In patients with RA there was increased absolute number of leukocytes by 69,68%, granulocytes - by 73,23% due to the growth of blood neutrophils - by 74,76%, segmented neutrophils - by 71,01%, and arised absolute number of agranulocytes by 54,61%, lymphocytes - by 54,14% and monocytes - by 57,84%. Significantly (by 75,47%) increases the relative number of band neutrophils, formed downward trend in the relative amount of agranulocytes by reducing the relative amount of lymphocytes and monocytes.

Among the one-third of the patients (37,50%) there was found a stressful situation with a value of adaptation index - 0,17-0,29. The concentration of C reactive protein in patients of the main group was $23,30 \pm 0,17$ to $4,97 \pm 0,05$ in the control group ($p < 0,001$), which is regarded by us as III level of immune disorders - index exceeds the maximum permissible level by 5 times.

Growth of hematological toxicity index by 9 times shows the output of intoxication beyond the interstitial space, ie beyond the articular manifestations of endotoxemia and spreading at the system level.

Exacerbation of rheumatoid arthritis is associated with lower stress adaptation in men with RA. In 46,88% of male patients with RA, adaptive processes are at level of "response to training", while in 37,53% of the cases there are formed "stress" type of adaptive response. The development of rheumatoid arthritis in men is accompanied by increased cell reactivity and remained cell resistance.