

**МІНІСТЕРСТВО ОХОРОНИ ЗДОРОВ'Я УКРАЇНИ
БУКОВИНСЬКИЙ ДЕРЖАВНИЙ МЕДИЧНИЙ УНІВЕРСИТЕТ»**



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CHANGES IN TNF- α IN COMBINED PATHOLOGY OF HIV INFECTION WITH TUBERCULOSIS

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Introduction. TNF- α (tumour necrosis factor- α) is a critical cytokine for controlling mycobacterial infection and its role cannot be fulfilled by other cytokines. Tumour necrosis factors play an important role in granuloma formation and anti-infectious defence during *M. tuberculosis* colonization and infection control. In addition, its level increases even in the presence of latent tuberculosis infection, when there are still no manifestations of the tuberculosis process, which is crucial for early detection of mycobacterial infection.

The aim of the study is to carry out a comparative analysis of TNF- α indicators in groups of patients with HIV infection combined with tuberculosis (TB) and TB mono-infection.

Material and methods. A comprehensive immunological examination of 231 patients was carried out, including 155 HIV-infected patients with active tuberculosis detected for the first time and 76 only with tuberculosis. The HIV/TB group was divided into 3 subgroups depending on the time of TB joining to HIV infection. Tumour necrosis factor- α (TNF- α) levels were compared for groups with combined HIV/TB infection and patients with TB mono-infection.

Results. Significant differences were found between the level of tumour necrosis factor- α in HIV-infected patients and patients only with TB. Thus, in focal, infiltrative, fibrous-cavernous and generalized TB in association with HIV infection, the serum concentration of TNF- α statistically significantly exceeded the corresponding indicator in TB mono-infection ($p < 0.05-0.001$). In the case of caseous pneumonia, the spontaneous production of TNF- α in the HIV/TB group was (181.0 ± 62.2) pg/ml/106, considerably exceeding the studied level in patients with only TB – (11.3 ± 1.5) pg/ml/106. In general, the amount of serum concentration and spontaneous production of TNF- α was higher in the group of patients with combined infection - (29.5 ± 6.4) pg/ml and (82.6 ± 32.8) pg/ml/106 compared to TB mono-infection – (6.5 ± 1.4) pg/ml and (16.1 ± 4.7) pg/ml/106 (in both cases $p < 0.001$).

Conclusions. As HIV infection progresses (the number of CD4+ T-lymphocytes decreases and the HIV viral load increases), there is an increase in the serum TNF- α content, which presumably indicates a decrease in the number of anti-inflammatory T-regulatory cells or a decrease in their suppressive activity. Therefore, such a macrophage cytokine as TNF- α participates in the non-specific chain of anti-tuberculosis protection of the body and can serve as an early marker of the tuberculosis process.

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IMPROVEMENT OF TREATMENT OF ROSACEA PATIENTS BY MEANS OF ADMINISTERING ANGIOPROTECTIVE AND HEPATOPROTECTIVE AGENTS

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Introduction. Rosacea (acne) is a widespread chronic dermatosis. Its clinical manifestation is localized on open skin areas – central parts of the face (cheeks, nose, and chin). It has a negative effect on psychoemotional condition of patients, reduces their ability to work and social activity. Today rosacea is characterized by a long chronic course, resistance to standard therapy. Therefore, improvement of the effect of treatment of patients with rosacea is a topical issue of modern dermatology. Rosacea is found to be a multifactorial dermatosis. Its pathogenesis includes such important signs as changes of the skin microcirculation, vegetative dysfunctions, neuroendocrine regulation disorders, functional disorders of the digestive organs, which should be considered in a comprehensive examination and treatment of patients.

The aim of the study. To improve the efficacy of treatment of patients with rosacea by means of a combined administration of angioprotective and hepatoprotective drugs.

Material and methods. 48 patients with rosacea aged from 27 to 68 years including 35 females and 13 males were examined. According to clinical signs on the skin erythematous-telangiectatic form of rosacea was diagnosed in 19 patients, and papulo-pustular form of dermatosis was diagnosed in 29 individuals. 6-month duration of dermatosis was found in 14 patients, and from 7 months to 5 years – in 34 individuals. The functional state of the hepatobiliary system was examined in patients by means of ultrasound diagnostics of the organs of the hepatobiliary system and laboratory methods of examination (biochemical, immunoenzymatic).

Results. A comprehensive examination found in the majority of patients with rosacea – 34 individuals (72,9%) certain changes in the organs of the hepatobiliary system (chronic cholecystitis, hepatitis of non-viral etiology). They included changes detected by ultrasound diagnostics of the liver and gallbladder, changes in the blood serum content in the activity of transaminase, alkali phosphatase, cholesterol, lipid spectrum etc. Considering functional changes of the hepatobiliary system organs and clinical signs of rosacea on the skin (stable erythema, numerous telangiectations) and in order to improve the effect of treatment of rosacea, the hepatoprotective drug containing Silymarin during 3 weeks, and angioprotective drug containing bioflavonoids Diosmin and Hesperidine (during 4 weeks) were added to a comprehensive therapy of 25 patients (the main group). The rest 23 patients (group of comparison) received a standard therapy of dermatosis. According to clinical observations, the patients with rosacea from the main group who received angioprotective and hepatoprotective drugs in addition to their comprehensive treatment presented reduced hyperemia and swelling much earlier. Infiltrative signs of dermatosis disappeared 8-14 days earlier than in those patients from the group of comparison. A month after completion of treatment the condition of clinical recovery was diagnosed in 17 (68,0%) individuals with rosacea, considerable improvement – in 8 (32,0%) patients. In the group of comparison – in 9 (39,1%) patients and in 14 (60,9%) individuals respectively, which according to the applied nonparametric dispersive Friedman's analysis has a reliable difference ($\chi^2 = 4,57$ with the critical value of this parameter 3,84).

Conclusions. Thus, administration of the hepatoprotector containing Silymarin and angioprotector containing bioflavonoids Diosmin and Hesperidine in addition to a comprehensive therapy of patients with rosacea with the signs of stable erythema and numerous telangiectasy, functional changes of the organs of the hepatobiliary system promotes reliable clinical effect of treatment of such patients.

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THE INFLUENCE OF THE CONCOMITANT PATHOLOGY OF DIABETES ON THE TREATMENT OF TUBERCULOSIS

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Introduction. Tuberculosis (TB) and diabetes mellitus (DM) are among the significant modern medical issues that have a direct impact on the public socio-economic indicators. The problem of diabetes as well as tuberculosis is more acute in countries where tuberculosis is epidemic and the burden of diabetes tends to increase linearly.

The aim of our study was to determine the influence of the concomitant pathology of diabetes on the treatment of tuberculosis.

Materials and methods. A retrospective analysis of 1687 medical records was carried out, that were listed in the registry database of Chernivtsi Regional Clinical TB Dispensary. Statistical processing of the obtained results was carried out by analyzing the contingency tables using the Statistica Basic Academic 13 for Windows software package (License Number: 139-956-866).

Results and discussion. Depending on the type of TB case in our patients, we found that in both groups of the study the recurrence of TB prevailed – 49 cases (55.7%) against TB 39 cases (44.3%) of people in the main group; 363 cases (53.9%) against 311 (46.1%) in the control group ($p < 0.05$). Analysis of the treatment success rate of TB/diabetes comorbidity with drug-susceptible TB demonstrated a low percent of effectiveness – 54% (compared to the general 76.77% in this group),