



Semianiv I.O.

THE COMORBIDITY PREVALENCE OF DIABETES MELLITUS AND TUBERCULOSIS

Department of Phthysiology and Pulmonology

Bukovinian State Medical University

It is generally known that diabetes is the background for the development of tuberculosis and such comorbidity not only significantly complicates the specific process, but also is one of the main risk factors for tuberculosis recurrence.

The aim of the study is a comprehensive retrospective assessment of the prevalence, features, course of treatment of multidrug-resistant tuberculosis and diabetes mellitus.

Our study is based on an analysis of statistical data obtained from a retrospective study of 762 case histories and cases of MDR-TB in the register of tuberculosis patients for 2015-2019.

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 ($p < 0.05$).

The rate of successful treatment in gr.2 is probably higher than in gr. 1 (64.7% vs. 61.4%; ($p < 0.05$)). However, a more significant probable difference is characterized by the treatment rate, which in the main group is 27.3% versus 40.3% in the control group (almost 2 times; $p < 0.05$). The rate of ineffective treatment, which in patients with comorbidity was 27.3% (almost every third patient) against 17.6% in group 2 is also important for scientists and practitioners.

So, there is a clear tendency to increase the combined pathology and chemoresistance in the structure of the incidence of tuberculosis, the proportion of recurrences of tuberculosis in the presence of diabetes mellitus. The pulmonary tuberculosis developed significantly more often in middle-aged patients with type 2 diabetes mellitus with moderate and severe states, the subcompensated form, with a complicated course. In patients with diabetes more often was registered a common tuberculous process in the lungs (79.5% of patients) and in all 100% of patients with syntropy bacterial excretion was registered, as well in all 100% of patients with syntropy bacterial excretion was registered. The rate of successful treatment for the presence of MDR-TB / diabetes syntropy is probably lower in the main group (61.4% vs. 64.7%; ($p < 0.05$)).

Sokolenko M.O.

PECULIARITIES OF IMMUNE STATUS IN PATIENTS WITH HIV-ASSOCIATED HERPETIC INFECTIONS

Department of Internal Medicine and Infectious Diseases

Bukovinian State Medical University

Recently, a large number of works have been devoted to the issue of immunity in herpes infections and HIV infection. At the same time, some immunopathogenetic changes in the combined course of these diseases are insufficiently studied, and the information is often contradictory, especially from the standpoint of modern technologies for assessing immune status.

The objective of the work is to identify features of the dynamics of cellular immunity and cytokine status of patients with HIV-associated herpes infections.

The study involved 279 people who were divided into 4 groups. The first included 117 patients with various clinical forms of herpes infection: labial herpes and / or aphthous stomatitis, genital herpes, shingles and infectious mononucleosis. The second group included 65 patients with HIV infection, the third group included 67 patients with HIV-associated herpes infections. The control group consisted of 30 healthy people. All individuals who participated in the study studied the indicators of immune status using a set of standard techniques, an extended range of immunological parameters was studied by flow cytometry.

It was found that in patients with HIV-associated herpes infections, the content of lymphocytes in the III and IV clinical stages of HIV infection was lower than in herpes infection- (0.85 ± 0.35) and (0.52 ± 0.35) G/l, respectively, against (2.77 ± 0.75) G/l ($P < 0.05$). There was also a significant decrease in CD4+levels in stage II-IV HIV infection in combination with herpes infection and an increase in the number of T-suppressors compared with herpes monoinfection



($P < 0.05$). In the presence of the herpes virus in the body of HIV-infected immunoregulatory index is reduced (-0.67 ± 0.29) in II, (0.48 ± 0.17) in III and (0.23 ± 0.11) in IV clinical stage immunodeficiency, respectively, against (2.09 ± 0.20) in herpes infection ($P < 0.02$). It is likely that the presence of the herpes virus in the body of HIV-infected people provides some competitive effect on regulatory subpopulations.

In patients with HIV and herpes coinfection, the ratio of serum concentrations of IL-8, IL-10, IL-12 and IL-17 undergoes maximum imbalance. Moreover, the content of not only pro-inflammatory cytokines IL-8 and IL-17, but also anti-inflammatory IL-10 increases significantly. Thus, the level of IL-8 fluctuated in the range ($62,17 \pm 15,84$)-(244,10 \pm 51,11) pg/ml, and IL-10-from ($2,131 \pm 0,622$) pg/ml in the I clinical stage HIV infection to ($6,863 \pm 1,312$) pg/ml in IV (terminal).

At the same time, the level of pro-inflammatory IL-12 is significantly reduced in patients with severe immunosuppression-up to (1.30 ± 0.67) pg/ml, which not only differed from that in healthy individuals ($P < 0.05$), but also in patients for herpesvirus monoinfection- (5.40 ± 1.52) pg/ml ($P < 0.05$). At the same time, the serum level of the anti-inflammatory cytokine IL-10 increases significantly ($P < 0.05$), regardless of the clinical stage of HIV infection.

Therefore, the results obtained indicate a lack of cellular and humoral components of immunity in patients with HIV-associated herpes infections. The combination of altered immune factors leads to the active persistence of herpes viruses in humans and the recurrence of the disease. Given this, the treatment of various clinical forms of herpes infections should be aimed not only at modulating the cell, but also at activating the humoral part of the immune system.

Sorokhan V.D.

PROBIOTICS AND ReO-WATER IN COMPLEX TREATMENT OF PATIENTS WITH SALMONELLOSIS

*Department of Internal Medicine and Infectious Diseases
Bukovinian State Medical University*

One of the leading places among infectious diseases is occupied by acute enteric infections in general, and salmonellosis in particular. The problem of salmonellosis treatment is related to the microbiocenosis, the microflora of which is the primary target of exogenous flora and its aggression factors. It is known that in 100% of patients with salmonellosis in the first days the dysbacteriosis of varying severity is determined and characterized by clinical and laboratory syndrome with changes in the qualitative and /or quantitative composition of the intestinal microflora.

The aim of our study was to study the effectiveness of the probiotic LACTO in combination with ReO-water in the treatment of salmonellosis.

Research objectives: to study the effectiveness of basic therapy in combination with probiotic Lacto and ReO-water in patients with salmonellosis on clinical-laboratory and microbiological indicators. On the basis of the received data to define expediency of use of these drugs at patients with samonellosis.

Collection of material for dysbacteriosis: material for examination - feces were delivered without preservative not later than 2 hours after collection. The material was delivered to the microbiological laboratory of the Regional Municipal Non-Profit Enterprise "Chernivtsi Regional Clinical Hospital", where a comprehensive microbiological study was performed.

12 patients with salmonellosis were examined. Clinical and laboratory studies were performed. Changes in the microbiocenosis of the colon were found in all patients: a decrease in the number of lactobacilli, bifidobacteria, the total amount of E. coli. The content of lactobacilli $< 10^6$ Log₁₀ CFU/gram of **feces** was observed in 4 patients and only one patient approached the norm of 10^7 Log₁₀ CFU/gram (norm $> 10^6$ Log₁₀ CFU/gram); bifidobacteria was $< 10^7$ Log₁₀ CFU/gram in 3 patients, and in 2 patients it approached to normal value ($> 10^7$ Log₁₀ CFU/gram). There was also a decrease in the total amount of E. coli $< 10^6$ Log₁₀ CFU/gram in 1 person.

In addition to basic treatment, patients were additionally given by Lacto 1 capsule PO TID in 30 minutes before meals for 5 days in combination with ReO-water PRN.