

Thus, despite the generally positive dynamics of reducing the incidence of MDR-TB in Minsk and Belarus, it is necessary to pay attention to the trend toward increasing incidence of women and children in the age group 0-14 in Belarus and a lower rate of decline in nationwide morbidity compared to Minsk. Further improve measures for prevention, timely diagnosis and successful treatment of every patient with bacterial discharge that will prevent the spread of MDR-TB in the society.

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### EVALUATION OF ENDOGENOUS INTOXICATION BY INDICATORS OF PERIPHERAL BLOOD IN PATIENTS WITH LYMPHOMA

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In the course of study, indices of cellular homeostasis were studied. It was noted that in patients with HL, calculation of indices of endogenous intoxication showed an increase in IRLM after treatment by 4 times. In patients with NHL, LII is reduced by 1.8 times, ISL by 1.6 times.

**Keywords:** Hodgkin's lymphoma, non-Hodgkin's lymphoma, endogenous intoxication.

Lymphoid tumors in general structure of malignant neoplasms occupy the fifth place. In recent years, the incidence of HL and NHL has increased steadily, in developed countries the incidence has almost doubled in the past 20 years. Heterogeneity of lymphomas, difficulties in diagnosis, severity of clinical symptoms, peculiarities of spread, the different nature of therapy, different prognosis and response to treatment make the problem of malignant lymphomas extremely urgent [1].

Systemic action of tumor on body is accompanied by the development of syndrome of endogenous intoxication. The syndrome of endogenous intoxication (SEI) is a syndrome based on the accumulation of toxic substances of various origin in the body, in concentrations that exceed the functional capabilities of detoxification systems, resulting in damage to organs and body systems [2].

In terms of the degree of severity of SEI, one can judge the severity of the disease and predict its course.

1. Leukocyte index of intoxication is calculated by the formula of Kalf-Kalifa. It characterizes the degree of endogenous intoxication and the severity of inflammation.

2. Index of leukocyte shift is the ratio of sum of eosinophils, basophils and neutrophils to the sum of monocytes and lymphocytes. Leukocyte formula shift to the left indicates the course of various kinds of inflammatory processes and infectious diseases, acidosis, and pre-coma [2].

**Materials and methods.** The work is based on clinical data of 20 patients with lymphomas aged 22–86 years who were on treatment at "Pinsk inter-district oncology dispensary" Healthcare Facility.

In the course of study, the peripheral blood parameters of patients were analyzed, in which the relative number of leukocytes, lymphocytes, neutrophils, monocytes, and ESR was determined. Quantitative study of hematologic indices was performed with hematology analyzer Hemacomp 10 (Italy). According to the formulas, the following indices of endogenous intoxication were calculated: leukocyte intoxication index (LII), leukocyte shift index (ISL), leukocyte and ESR ratio index (IRESR), lymphocyte and monocyte ratio index (IRLM), neutrophil and lymphocyte ratio index (IRNL).

**Results.** Calculation of integral hematological parameters in patients with Hodgkin's lymphoma showed a decrease in LII from 1,62 rel. units up to 1,3 rel. units, ISL also decreases from 2,95 rel. units up to 2,3 rel. units, which indicates a violation of the reactivity of the organism. IRNL decreases slightly from 3,02 rel. units up to 2,98 rel. units IRESR indicators has changed from 1,04 rel. units up to 1,2 rel. units. As a result of the data analysis, IRLM significantly increased after treatment (from 5,5 rel. units to 22,4 rel. units) 4-fold, which indicates a high sensitivity of monocytes, and also shows the effectiveness of the therapy.

In patients with non-Hodgkin's lymphoma, LII decreases from 1,4 rel. units up to 0,78 rel. units, ISL with 3,1 rel. units by 2 rel. units, IRESR slightly increases from 1,4 rel. units to 1,5 rel. units, IRNL decreases from 3,7 rel. units of 2,6 rel. units and IRLM is also slightly reduced from 9,8 rel. units to 9,77 rel. units.

Thus, in patients with lymphoma, an increase in level of endogenous intoxication resulting from carcinogenesis the tumor has an adverse effect on the immune system and is displayed by inflammatory process during the therapy.

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### EPIDEMIOLOGICAL FEATURES OF THE PREVALENCE OF OVERWEIGHT AND OBESITY IN BELARUS

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The problems of overweight and obesity attracts everyone's attention. Every day we see people who suffer from obesity in many places: in public transport, streets, in shops, hospitals, educational institutions. This disease became widespread long ago, and the number of victims is growing every year. That is why we can't ignore this problem.

*Keywords:* overweight, obesity, weight gain, weight disorders.

The obesity is medical condition in which excess body fat has accumulated to the extent that it may have a negative effect on health, as a result weight gain due to excess of adipose tissue. The main sign of the disease is overweight. In later stages, which occur during long-term overeating, certain complications can be observed, such as: the presence of stretch marks on the skin, the violation of the functions of various organs, including sexual function, increase in blood pressure and etc.

In Belarus, among both the urban and rural population, an increase in the frequency of obesity is observed. In modern society, the struggle for normal body weight is not only a medical problem, but also a social one. In this regard, every person who is suffering from overweight is obliged to take timely measures to normalize their physical condition, prevent or even stop further weight gain. After all, even without any medical help, it's possible and feasible for every person caring for their health and well-being. During our research for the last 5 years we have noticed that there is a visible increase of the population with weight disorders in the Republic of Belarus, but at the same time, the growth rates are slowing down. To identify territorial differences, a comparative analysis of the body mass index of the population was carried out in the regions of Belarus in 2011–2016. The most unfavorable situation develops in Minsk and Vitebsk regions. Morbidity rates in Minsk city, Gomel and Mogilev oblasts are lower than the national indices.

Considering growing rates of obesity in Republic here are some recommendations for improving the health of the population:

- It's necessary to take measures on an individual scale, people personally have to normalize their physical condition, stop and prevent weight increase.
- It is necessary to create a free sports infrastructure on a national scale, develop inexpensive rental of inventory and equipment. According to research, individuals with low incomes have fewer opportunities for sports activities (lack of funds to purchase necessary equipment, clothes, equipment), the availability of accessible infrastructure at work or school is positively related to the chances of individual exercising. Also, it's worth to promote active leisure and give more opportunities for active lifestyles, for example adapting cities for bicycle type of transportation – more bicycle tracks, considering every year the number of vehicles in Belarusian cities only increases, traffic lanes for bicyclists to make it most preferable type of transport.