

In the conditions of an adverse demographic situation in Republic of Belarus, and the introduction in reproductive age of girls from the small generations born in the 90s problems of a condition of reproductive health and reproduction of the population acquire special relevance and the medico-social importance [1; 2].

The high incidence of pregnant women predetermines the high incidence of newborns remaining in recent years, and as a result, is the adverse forecast for health of the nation. The reasons, the worsening health of women have medico-social, ecological and economic character [4].

The complication of pregnancy is given as chronic diseases of women which can become aggravated during incubation of a fetus, and arisen for the first time during pregnancy [5].

Diseases acquired during pregnancy are one of the frequent reasons of the pre-natal pathology leading to developing of malformations of a fetus and its death [3].

Purpose of work: analyze and follow the dynamics of the morbidity of pregnant women in the conditions of the Frunze district of Minsk for the period from 2014 to 2015.

For realization of a goal annual reports of antenatal clinic of "the 20th city polyclinic" of Minsk from 2014 for 2015 have been analysed.

It is established that in this temporary period overall picture of the end of pregnancies has improved.

The increase in number of urgent childbirth is noted (from 93,52 % to 95,72 %). The number of premature birth (from 3,45 % to 2,59 %), and abortions has decreased (from 3,03 % to 1,69 %).

It is defined that 2015 is characterized by the big level of birth rate (the number of live-born children has increased on 51), however at the same time the occurrence of congenital malformations of a fetus increases (from 0,5 % up to 0,9 %) that is connected both with endogenous, and with exogenous factors.

It has been revealed that main reason of pregnancy complication is development of anemia (2014 – 21,54 %, 2015 – 22,53 %), infectious and parasitic diseases (2014 – 17,4 %, 2015 – 18,22 %), infections of urinogenital ways is the leading reasons of a complication of pregnancy (2014 – 14,41 %, 2015 – 12,63 %).

In dynamics of a research at zero level there are such indicators as prenatal bleedings (0–0,14 %), a diabetes mellitus (0–0,29 %), illnesses of the blood circulatory system (0,57–0,57 %).

Health protection of women and children has important medico-social value, both for the present stage of development of society, and for the future of the country. Therefore protection of motherhood and the childhood becomes one of the main objectives of state policy, an important component of health care.

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IMMUNOPHENOTYPIC CHARACTERISTICS OF B-CELL NON-HODGKIN'S LYMPHOMAS

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As a result of the research, the immunophenotypic characteristic was determined for diffuse large B-cell lymphoma and follicular B-cell lymphoma.

Keywords: non-Hodgkin's B-cell lymphomas, B-lymphocyte, immunophenotyping, clusters of differentiation, flow cytometry.

Nowadays the molecular-biological researches in the field of non-Hodgkin B-cellular lymphomas are developing at a rapid pace.

The appearance of lymphomas of this type is often associated with changes in ecological status, because the workers in different spheres of production contacting pesticides, fertilizers, and solvents are considered to have them more often [1].

The research of immunophenotypic features of the non-Hodgkin's B-cell lymphomas is relevant, so making a diagnosis correctly and in time allows you to predict the flow of the disease and individualize the tactics of the treatment.

The Non-Hodgkin's lymphomas are a group of histologically and biologically heterogeneous cancerous neoplasms of the lymphoid system. The B-cell lymphoproliferative tumor is characterized by uncontrolled production of B-lymphocyte cellular structures [2].

Immunophenotyping is carried out on the analysis of specific protein markers basis that are located on the surface or inside the cells of lymphocytes – clusters of differentiation and denoted by the CD index with the addition of a conditional number.

The aim of the study was to increase the effectiveness of differential diagnosis of non-Hodgkin's lymphomas on the basis of an evaluation of the immunophenotypic characteristics [3].

Material and methods.

Immunophenotyping of the bone marrow, peripheral blood and lymph nodes were carried out by flow cytometry on Beckman Coulter Navios flow cytofluorimeter (USA). The material of the research was samples of bone marrow, peripheral blood and lymph nodes of patients treated on the basis of the Republican Scientific and Practical Center of Oncology and Medical Radiology named after. N.N. Alexandrov.

Immunophenotype of tumor cells of bone marrow and peripheral blood of 37 patients with various morphotypes of lymphomas were researched.

The prevalence of the group of patients with diffuse large B-cell lymphoma in 37,8 % of cases was established.

This morphotype is characterized by high cell aggressiveness and dynamic growth. In the absence of a highly effective intensive treatment, the metastatic lesion of the body leads to a lethal outcome [4].

In the research of this type of lymphoma, the following immunophenotype was established: high level of expression of HLA-DR markers, CD79b, CD19, moderate expression level of Kappa, CD43, FMC-7, BCL-2, CD45 / CD14, low expression level of CD3, CD3 / CD16 / CD56, CD5, CD79a, CD11c, CD103, FMC-7, no expression of CD10, Lambda, CD43.

Follicular B-cell lymphoma was diagnosed in the second group of patients in 13,5 % of cases. This morphotype of a malignant tumor is characterized in most cases by an asymptomatic course, in a number of cases it is detected at the stage of metastatic bone marrow involvement [5].

As a result of performed immunophenotypic studies, the following immunophenotype was established: high expression of markers CD23, HLA-DR, CD22, Kappa, CD79b, FMC-7, CD3, moderate expression level of CD138, CD10, CD43, CD11c, CD19; low expression level of CD5, Lambda, CD103, CD3 / CD16 / CD56, absence of expression of CD79a, BCL-2, CD45 / CD14.

The monitoring of the course of the disease showed that the 5-year survival of patients with B-large cell lymphomas was 85 % for the early stages, with prevalent processes and involvement in the bone marrow – 26 % [6].

Thus, one of the key tasks of clinical oncology is timely highly informative complex diagnosis of the disease.

Immunophenotyping with the use of immunohistochemical method, the flow cytometry are the modern diagnostic algorithms in differential diagnosis and evaluation of the effectiveness of therapy for all types of the lymphoproliferative diseases [2; 4].

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INVESTIGATION OF DAMAGE OF OPPORTUNISTIC FUNGI IN MAN-MADE ECOSYSTEMS

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The study examined the premises of residential and public buildings for signs of bio-damaging. Microbiological analysis of isolates showed that the main agents of bio-damaging inside the premises are microscopic filamentous fungi. First of all building materials, were susceptible to colonization with micromycetes, were studied cultural and morphological properties of microorganisms selected from the foci of bio-damaging, was determined the tribal affiliation of the dominant cultures, were evaluated the growth rate of colonies and the density of biomass of the culture at 28 °C and 37 °C.

Keywords: *alternaria, aspergillus, chaetomium, cladosporium, fusarium, penicillium, stachybotrys, trichoderma, ulocladium, mold fungi, damage of building materials.*

The study group of opportunistic (potentially pathogenic) fungi – actively develop a direction of mycological research in recent years. Opportunistic fungi refers to those fungi that normally would not cause infections in otherwise healthy people but are able to cause infection under certain circumstances [1]. In connection with the increase in the number of diseases caused by conditionally pathogenic species of microscopic fungi, more attention is given to their monitoring in the environment [2].

The object of a research - microscopic filamentous fungi, isolated from the centers of mold damage to building materials.

The work purpose – studying of growth of the micromycetes involved in the bio-damaging of building materials at temperatures and conditions that are comfortable for human activity.

During work methods of superficial cultivation have been used.

In the work it was shown that the most common types of fungus-micromycetes of the following genera are located in residential areas: *Alternaria, Aspergillus, Chaetomium, Cladosporium, Fusarium, Penicillium, Stachybotrys, Trichoderma, Ulocladium, Verticillium*. The greatest variability of coefficient of radial growth rate was characterized *Aspergillus* and *Chaetomium*. Increase temperature limited rise 40 % of strains of the kinds *Chaetomium* and 33,3 % of the kinds *Cladosporium, Fusarium* and *Stachybotrys*, of 9,1 % and 6,0 % of the kinds *Penicillium* and *Aspergillus*, respectively. The most expressed by inhibition of growth at 37 °C were the representatives of kinds *Chaetomium* and *Stachybotrys* – the coefficient of radial growth rate compared to 28 °C decreased by 4,1 and 4,0 %, respectively. High growth activity in 37 °C was characterized by representatives of the kinds *Alternaria, Aspergillus, Fusarium, Penicillium*, and *Ulocladium*.

The study of growth activity of selected fungi, cultivated at temperatures of 28 and 37 °C showed that the increase in temperature increases the biomass yield of thermophilic cultures in 0,5 times, and cold resistance is lower in 1,5–2 times. The highest yield of biomass at a temperature of 28 °C were at fungi of the kinds *Alternaria, Aspergillus, Verticillium*, and at a temperature of 37 °C, fungi of the kinds *Aspergillus, and Cladosporium*. The optimum temperature for the development of most crops opportunistic fungi isolated from lesions of moulds and destruction of residential premises is 20–35 °C. Since the temperature range 20–25 °C is comfortable in most residential areas, and the temperature at 35 °C is approaching to the natural temperature of a healthy human body. Thus, most cultures of fungi to growth and development in the environment of residential areas, having a negative impact on human health. When comparing the growth characteristics of fungi it was shown that the biomass yield is not necessarily dependent on growth rate. At a temperature of 28 °C of the fungus *Verticillium* biomass yield was higher than the rate of growth of the colony, while *Cladosporium* both figures were on the same level.

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