

The stage of malignant lymphoma is determined in the third step, by beam diagnostics (by prescription), ultrasound, computed tomography and nuclear magnetic resonance.

Radionuclide studies methods liver, spleen, kidney, skeleton, bone marrow examination, and lumbar puncture also occur at this stage.

In the fourth stage, a definitive diagnosis is established.

Thus, it is necessary to carry out a combined functional and differential diagnostics of lymphoma for determining more accurate diagnosis of the early stages of the disease.

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ANALYSIS OF THE INCIDENCE OF LARYNGEAL CANCER IN THE POPULATION OF THE REPUBLIC OF BELARUS FOR 2002–2013

Timeliness. Laryngeal cancer (LC) is from 2 to 5% of all malignancies annually diagnosed worldwide. The incidence of laryngeal cancer, compared with tumors of other localizations is relatively low. Over the past 10 years the number of new cases of Laryngeal cancer in Belarus remains almost unchanged. The disease usually occurs in the age groups of 40–60 years old, and men suffer from the disease 15–20 times more often than women.

Low rates of early active diagnosis of the cancer (55.9% in 2011), high rates of one-year mortality (25.3% in 2011) and the advanced malignant laryngeal tumors indicate the need for a systematic study of the major risk factors contributing to the LG on the territory of the Republic of Belarus.

The purpose is to analyze statistical data on morbidity of malignant tumors of the larynx among the population of Belarus and to identify the main trends in the incidence from 2002 to 2013.

The object of the study was the information on the number of laryngeal cancer cases in population of the Republic of Belarus for the period from 2009 to 2013, as well as the information about the number of inhabitants in the Republic of Belarus for the same period.

The analysis in the work showed that a decrease in laryngeal cancer specific gravity among the malignancies is observed. It can be also noted that LC incidence in urban population (4.5 per 100,000 people) is lower than in rural (7.5 per 100,000 people).

The analysis of the incidence dynamics by age groups showed that the increase in the morbidity of the male population occurs with age increasing and reach its maximum values for the people of 65–69 years old (52%). However, most women with laryngeal cancer account for the older age group – 70 years old (45.8%). From

the age of 75 years old there is a lower incidence of that cancer which may be caused by the difficulty in diagnostics at this age and higher probability of death.

Minimum incidence values are recorded in Minsk (3 per 100,000 people) and in Vitebsk region (3.7 per 100,000 people), the maximum values are in Minsk (4.9 per 100,000 people), Mogilev (4.8 per 100,000 people) Brest (5.0 per 100,000 people) regions.

In recent years, there is a positive tendency in increasing in LC diagnostics at early stages of its development.

The study of various issues related to risk factors of laryngeal cancer will improve the prevention programs and the impact on the level of this pathology.

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MOLECULAR AND BIOLOGICAL BREAST CANCER

The steady growth of malignant diseases can be associated with the worsening of ecological situation in RB. Breast cancer is the most widespread oncological disease of women. This disease affects from 1:13 to 1:9 women aged from 13 up to 90 years old during the life and is a serious problem of health care around the world. About 1 million new cases are identified annually throughout the world.

Due to the progress in the sphere of molecular and genetic research, there is the increasing recognition of the comprehension of heterogeneity and pathogenetic variety of breast cancer (BC).

In diagnostics and therapeutic approach to BC, the receptors of estrogen and progesterone are of the most importance. They represent specifically binding proteins which selectively influence a cell. At the same time, the lack of an expression of progesterone receptors is predicted to be an adverse factor for patients with BC. It is important to mention that co-expression with estrogen receptors is the characteristics of progesterone receptors. The presence of estrogen receptors in tumors is linked with a better prognosis in comparison with tumors which don't have these receptors.

The important diagnostic and prognostic factor is genotype.

Epidermal growth factor receptor of type 2 (HER2) is a transmembrane protein playing a key role in transferring the signals of growth factors. Hyperexpression of HER2/neu is an adverse prognosis for the course of a disease at BC associated with the prevalence of the neoplastic process.

Ki-67 is a nuclear anti-gene expressing in a proliferative phase of a cellular cycle. When Ki-67 is less than 15%, the tumor is considered to be less aggressive, and when an indicator is more than 30%, the tumor is considered to be highly aggressive and connected with the high risk of development.

P53 is the transcriptional factor regulating a cellular cycle and performing the function of a suppressor of formation of malignant tumors. At an increased