Thus, molecular-biological markers help to diagnose a colorectal cancer at earlier stages, to define the degree of tumor aggressiveness and to forecast the course of the disease. As a result, the hyperexpression of Ki – 67, p53, DCC, mutated APC and K – ras genes signal about the unfavorable course of the disease.

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APPLICATION OF BOTH SPECIFIC AND NONSPECIFIC IMMUNOLOGICAL PARAMETERS IN ASSESSMENT OF RHEUMATOID ARTHRITIS

Rheumatoid arthritis (RA) is a complex systemic autoimmune disease with unknown etiology characterized by chronic erosive arthritis and systemic inflammatory manifestation. Progression of disease in Ra is associated with high-level production of inducible proteins such as pro-inflammatory cytokines (interleukin (IL)-6, TNF-α, IL-1β, IL-4), antibodies (rheumatoid factor (RF), antibodies to cyclic citrullinated peptide (antibodies to CCP) and acute-phase proteins (C-reaction protein (CRP)). Division of the patients, suffering from RA, to seropositive and seronegative groups according to detection of RF also influences clinical laboratory indexes.

The purpose of the work was to identify the diagnostic value of specific and nonspecific immunological parameters of patients with RA with a high level of disease activity, identified by DAS28 score. The objects of the study were 20 patients with a positive diagnosis of RA and high level of clinical activity in 80% cases (DAS28 > 5,1). All the patients were hospitalized in Rheumatology department of "Clinical Hospital 9" in Minsk. Immunoassay methods were used to measure the level of IL-6, TNF-α in peripheral blood (serum samples), latex-tests were used to determine the level of the RF and CRP, the chemiluminescent microparticle immunoassay was applied to determine the level of antibodies to citrullinated proteins (anti-cyclic citrullinated peptide/anti-CCP antibodies). Erythrocyte sedimentation rate (ESR) was also measured and used in panel of tests to detect of disease activity.

Our results demonstrated significant increase the levels of RF (30[4; 14] U/ml, p = 0.01), CRP (80[3,5;30] mg/l, p = 0.01), IL-6 (23,69 [9,4; 53,2] pg/ml, p = 0.01) in comparison with healthy subjects (RF– don't identified, CRP – 1,2 [0.4;6.8] mg/l, IL-6 – 1,61 [0.45; 2.6] pg/ml). All the RF-seropositive patients demonstrated increased level of CRP in peripheral blood. There was the increase in the rate of ESR in 11 out of 20 patients with median value of 17,5 [6,5;46] mm/h in comparison to 7 [3;12] mm/h in healthy subjects. Mean level of the anti-

bodies to CCP in peripheral blood of patients with RA was 116,4±19,2 U / ml compared to 2,2±0.44 U / ml in subjects of healthy control group.

In conclusion, persistence of the high level of IL-6, CRP, RF, antibodies to CCP in peripheral blood of most of patient with RA is a valuable marker of inflammation to characterize disease activity that is closely related to summarized clinical DAS28 scoring.

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CAUSES OF CHILD MORTALITY IN THE REPUBLIC OF BELARUS

Problem Statement. Children mortality rates are indicative of the health status of the population. Evaluation of children mortality causes enables to detect the most severe forms of diseases playing a significant part in the child mortality structure thus facilitating the targeted disease control.

Objective: to study structure and dynamics of child mortality according to the causes during the period from 2005 to 2014 and to detect the age peculiarities.

Study subjects and methods: The formal statistic data on mortality rates of the child population in the age of 0–17 as well as on infant mortality were analyzed. The following methods were used: relation coefficient calculation, relative number error calculation with the aim to detect statistical significance, calculation of the longstanding tendency according to the first-order parable and evaluation of statistical significance.

Results and discussion. During the period from 2004 to 2014 the structure of child mortality causes remained fairly stable. Dominated were the accidents, injuries and intoxication accounting for more than 30%. Certain conditions originating in the perinatal period were the second most frequent causes – 19.14%, followed by the birth defects – 17%. Nervous system disorders accounted for about 8.5%, tumor growths constituted 6.1%; infectious diseases – 4.8%. Generally, mortality of the child population during this period was characterized by the definite downward trend – the trend index constituted 2.53 per 100 thd. children ($R^2 = 0.93$) due to decrease of child mortality indexes from external causes by a factor of 2.1 ($A_0 = 17.73^0/_{0000}$, annual trend index $A_1 = -1.36^0/_{0000}$, $R^2 = 0.91$) and birth defects by a factor of 1.5 ($A_0 = 9.12^0/_{0000}$, $A_1 = -0.49^0/_{0000}$, $R^2 = 0.79$). Average annual rate of child mortality caused by the nervous system diseases was at the level of $4.34^0/_{0000}$, child mortality from malignant tumors averaged to $3.26\%_{000}$, and from infectious diseases – $2.21^0/_{0000}$. Analysis performed did not detect consistent tendencies in the child mortality dynamics from these causes. Generally, child mortality rates during the period studied decreased by a factor of 1.5: from 64.3 per 100 thd. children in 2005 to 43.7 in 2014.