

processing for morphometry's research. Statistical data processing was carried out with Microsoft Excel programme.

As a result of researches it is revealed, that the latent period reduced (20-30 %) and duration of sexual activity increased in male-rats of 1 and 2 groups. At the same time, the amount of male's approaches to females increased 2,5-fold in time the 1-st group of male-rats. Then, the same changes in males of the 2 group was found in a lesser degree (10-15 %).

The reliable growth of total number of spermatozoons (17 and 34 %) and the prolongation of the period of spermatozoons's motility 15 % was revealed in spermogram of experimental groups of males at the same time.

The amount of pathological forms corresponded to the control rates. The tendency of decreasing of gonads mass coefficient (10-12 %) and growth of epididymis mass coefficient (8-10 %) was revealed during gonads's morphometry in males, receiving the substance in doses of 5 and 60 mg/kg.

It is established, that the index of a spermatogenesis in these animals did not change, and the canalicular number in testicles with the desquamated epithelium increased

The results of researches showed that new antioxidant substance of some N<sub>9</sub>-substituted of Imidazobenzimidazoles activates the sexual motivations of males, stimulates spermatozoons's emission from testicles to epididymis and influences the morphostructure of gonads's canals, depending on the dose.

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### **KARYOTYPE CHANGE OF CEREBRUM CELLS IN LEUKAEMIA DISEASE**

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Leukaemia (leucosis) - is a system progressing accretion of the primitive tumor burden in blood-making organs with hematogenic dissemination in other organs and tissue. The etiology of leukemogenesis is factors, which can cause the mutation of blood making cells: Viruses, Ionizing radiation, Chemical agents, Immunodeficiencies, Genetic factor, Panmyelophthisis.

The foundations for the diacrisis of the oncohematological diseases were laid down by the works of the A.A. Maksimov's followers, the hematologists I. L. Chertkov and A. Ya. Fridenshtein. The 5<sup>th</sup> level of survivability of the patients with hemoblastosis is still low. There are initial changes of the karyotype among the variety of the chromosomal anomalies. Such changes are typical for the certain variants of leukosis and concern the disease process. The changes in structure, with oncogene, growth factor gene, cell receptors and other bioactive genes involved, attribute to the initial and specific changes of chromosomes. The transgenesis, gene activation and loss, which control the oncogene functioning in the normal genome, and also the new DNA sequences formed by the translocation, play a great role in the processes of the neoplastic mutation. While working we have found the following cytogenetic changes:

del(6)(q21); 45,XY(-3); der(17); 45,XY(-7); t(15;17)(q21;q22); t(9;22)(q34;q11); inv(16); t(11;19)(q23;p13); inv(8)(p11;q13);

the polyploid variants of cerebrum cells karyotype. There are also nonspecific or post primary aberrations, which can come cause of the neoplastic proliferation and represent the processes of cloned evolution of leukemia cells. The post primary changes are not unique. The same changes are described in the different neoformations. But such changes present in the karyotype of the patients and have influence on the course of the disease. In recent years the great attention was paid to the role of some

genetic anomalies in the course of different forms of leukemia. The traditional cytogenetic methods and extremely sensitive anti-transcriptase polymerase reaction (RT-PCR) are widely used for finding out these anomalies. The first step was taken by us. We have defined such changes as:

inv(16)(p13;q22)/CBF/MYH11;t(4;11)(q21;p15)/NUP98/RAP1GDS1;  
t(11;19)(q23;p13)/MLL/EEN.

These anomalies are not notable for the exact linearity and perfectly register FAB-variants, except for the acute non-lymphoblastic leukemia, variant M3, when in 95 per cent of the cases are defined as t(15;17)(q22;q21)/PML/RAR. The diagnostics of the chronic myeloleukemia and other chronic myeloproliferative diseases and leukemoid reactions widely use the concept Philadelphia (Ph<sup>'</sup>) chromosome, formed by the translocation t(9;22)(q34;q11) or hybrid gene BCR/ABL. The using of the cytogenetic and molecular and genetic analysis while collecting the data of immunophenotyping is the 3<sup>d</sup> level of the hemoblastosis diagnostic. We consider it to be used in the nearest future in order to solve difficult diagnostic problems and give a possibility to point out some nosologic forms and variants of the onco-hematological diseases, which are notable for the mechanisms of forming, clinical and hematological and prognostic features, and optimal methods of therapy.

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### STRUCTURE OF THE MODELS AND ALGORITHM OF THE CYCLICLE BIOCONTROL IN COMPUTER SYSTEM OF THE MILLIMETER THERAPY

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**Urgency of the study.** In 1978 CHzhou Lini in China has voiced the suggestion about that that at irradiation of the person weak, but broadband spectrum of the electromagnetic waves organism "itself by itself" perceives lacking him electromagnetic fluctuations. This was exactly he, who has for the first time executed hardware realization given to ideas, in accordance with which medical device generates the electromagnetic fluctuations with small spectral density, but in broad band of the frequencies, including infrared and extreme high frequencies (EHF) ranges of the waves.

In 1993 F.A. Pyatakovich, S.L. Zaguskin, T.I. Yakunchenko have for the first time developed system biotechnical, founded on biocontrol amplitude-frequency inflexion millimeter of the range of the lengths of the waves. The Clinical acknowledgement considered above of the ideas was received at treatment to complicated peptic ulcer with the help of biocontrol way millimeter therapy [F.A. Pyatakovich, T.I. Yakunchenko, 1997, 2000,2003].

It Is considered and matrix way to realization millimeter influences on base three avalanche stairwell diode (ASD) [L.A. Krupenikina, O.V. Maslova, 2001; T.I. Yakunchenko, F.A. Pyatakovich, L.A. Krupenikina, 2002].

The Way was founded on chronobiological principle to inflexions with use parameter to biofeedback.

In designed author to system effectively functioned whole only three programs of the influence, intended for correcting immunological and rheological of the breaches beside sick sugar diabetes.

These restrictions were connected with hardware system of the realization millimeter radiations and use in her ROM. Consequently,