

haricot). Protein component supply tends to exceed the recommended age norms (especially in men).

As for the source of fat in the diet, the predominance of saturated fatty acids, obtained mainly from food of animal origin was observed. Fat intake meets the recommended norm.

Analyzing food from the menu for assessment of quality and amount of the consumed carbohydrates, the decrease in their quantity among men for 42% of the recommended norm and for 36% among girls should be noted. At the same time all respondents consumed, approximately in equal quantities, so-called "slow" and "fast" carbohydrates. Among "slow" carbohydrates in a diet were grits, buckwheat, vegetables, fruit, and among "fast" carbohydrates were pasta, chocolate, bakery products, potatoes dominated.

Thus, the obtained data demonstrates that the nutrient structure of a food allowance of respondents differs from standard indicators. Proceeding from it, it is also possible to assume insufficient intake of vitamins into organisms of the interviewed students.

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THE ROLE OF AGE AND LYMPHOTROPIC INFECTION IN THE FORMATION OF EXPERIENCE BODY IMMUNE

The composition of the peripheral blood lymphocytes has a unique feature – it is composed of lymphocytes, generated by lymphopoiesis (naive lymphocytes), and lymphocytes formed during immunogenesis within clone antigen (stimulated lymphocytes and memory lymphocytes). The ratio of naive lymphocytes and memory lymphocytes refers to an important integral indicators of evaluating the formation of immunological experience of the body and aging or deterioration of the immune system.

There is an attempt to evaluate the role of age and lymphotropic infection as the most important factors of influence on the immune system in the presented investigation. Groups of examinees were formed to that end: group 1 – clinically healthy donors (a control group), group 2 – a group of individuals with HIV infection (a group for tracking the process of superantigen stimulation and the inhibition of lymphopoiesis), group 3 – the elderly group made up of individuals older than 75 years old (a group to monitor the impact of age-related changes). It was assumed that this approach would clarify the features of the ratio of naive lymphocytes and memory lymphocytes of age and infectious nature, that is to establish the role of immunological experience in the immune system.

To implement this goal peripheral blood was used, the lymphocytes of which were typed by the reaction of direct immunofluorescence for expression of CD45RA and CD45RO molecules.

The study of the content of naive lymphocytes and memory lymphocytes among the representatives of the three groups of examinees has revealed a number of important differences. Clinically healthy people (a control group 1) are different from the comparison group for higher presence of naive lymphocytes, reflecting the sufficiency of lymphopoiesis (the comparison is significant ($p < 0.005$)). In the other two groups (HIV-infected individuals and people older than 75 years), this index is lower. But the mechanisms of lymphopoiesis limitation are different: in the presence of HIV-infection they are provided with the influence of HIV on hematopoietic cells. This observation is consistent with the other researchers' findings who conducted the study as part of the features of HIV infection and changes in the immune system during human life.

The study leads to the following conclusions:

1. Summary immunologic experience, manifested by the presence of memory lymphocytes accumulates over time.
2. The presence of chronic lymphotropic infection (HIV) does not show the formation of an immunological total experience, and leads to lymphopoiesis violation, i. e., the reduction of the number of "naive" lymphocytes.
3. Summary immunological experience is formed by opposite parity changes – a decrease in the number of "naive" lymphocytes and an increase in the number of memory cells.

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STUDY OF ANABOLIC AGENTS METABOLISM USING IN VITRO SYSTEM OF HUMAN HEPATOCYTE CELL LINE

Abuse of anabolic steroids is one of the most important issues in sports. In doping control the detection of steroids is performed on the basis of urinary steroid profile, and the knowledge of it is very important to provide accurate control. Metabolism studies are usually performed by collecting urine samples after administration by volunteers of the steroid (excretion study). During last years human hepatocyte cell line has become a widely used system for metabolic studies since in vitro drug metabolism studies serve as a convenient screening mechanism to investigate drug metabolites.