participants. The adoption of the Internet by children and adolescents today takes place in many different places and is a component of socialization and communication (communication) children.

The aim of our work was to identify the main types of online activity schoolchildren 10-11 years and 12-13. We had the following objectives: to design a questionnaire and conduct a survey of pupils 4 and 6 classes. To analyze the obtained results and to identify the main activities of schoolchildren in the Internet. To analyze the dynamics of activities on the Internet students in different ages.

Problem solving was carried out on the basis of secondary school number 11 among students of 4 and 6 classes. We developed a questionnaire. A questionnaire survey, all students were divided into 2 groups: 1 group-pupils of 4th grade (55); group 2-students of grade 6 (29 people). In the analysis we found that more than 70 % of students 4th grade and about 90% of grade 6 students using the Internet since the beginning of schooling. And at the same time there are students in both groups who use the Internet less than a year. The first acquaintance with the network I was at home. Only 1/3 of children 12-13 years is parental control when using the Internet, despite the fact that young children such control is virtually 100%. Almost half of the students in the homework enlists the aid of a global network, not to the textbooks and publications. 96.4% of 4th grade students play online games, more than half communicates through chat rooms. More than 80% of the children communicate using Facebook, Whats App, YouTube, Twitter or Instagram, looking at various videos. Despite the fact that monitoring is not always possible to say with certainty, on what sites the child visits. More than 80 percent of students grade 6 not play computer games, while 4th grade students in more than 90 % of cases they play. The choice of particular games did not differ. On average during the day, students spend from 1 to 3 hours.

Due to their attractiveness the Internet has pushed traditional forms of children's activity (reading books, drawing, walking and playing outdoors). Compared with other means of mass communication, the information contained in the global network, is more accessible, regularly updated, has no restrictions on volume, accompanied by a large number of graphic information (photos, videos). The lack of spatial boundaries makes the information available in the network available regardless of the user's location. From our point of view, the issue of developing a global network of children and those adults who work with them, while using online resources and new training tools, is today fundamental. Often the need for giving children access to the Internet often experience the parents themselves, since it is convenient as a means of "arranging" a child to do household chores.

Thus, the obtained data show that mastering the skills of networking in modern man starts from a very early age. The Internet is competing against other types of children's behavior: communication with peers, educational Board games, etc. Parents are counting on the expanding horizons of the child using it will consume the Network information, the completion of its cultural capital. Along with the opportunity for a child to get pleasure from watching cartoons in the Internet, he becomes an integral part of everyday life for children and their parents. Thus, we drew the following conclusions: the Repertoire of online activity schoolchildren 10-11 years and 12-13 reaches more than 12 species, including just searching for information, social networks, chat rooms, downloading photos, music, videos, online games. The older the child, the more Internet resources he uses. Current students quickly learn the wisdom of working with a personal computer and have a lot of Hobbies, which the members of the older generation and could not conceive. There are two extremes: "the Internet is Evil" and "the Internet is salvation" – and this is an indicators of psychological immaturity, disharmony of the spheres of consciousness and self-determination.

Literature

1. Pecherskaya E. P., Zvonovskiy V. B., Merkulov D. J., Mackiewicz, M. G., Pleshakov V. A. First steps in the Internet//2014. P. 74-80

2. Children and libraries in changing media environment.//M.: School library, 2004. S. 166-182

3. Alekseenko N. N. Psychoanalytic aspects of human behavior in cyberspace // Journal of practical psychology and psychoanalysis. – 2000. – No. 3

4. http://lsosh2.obrlen.ru/school/26917/info/56031

DOI: 10.22448/AMJ.2016.15-16.34-35

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EFFECT OF REMAXOL ON THE PARAMETERS OF LIPID PEROXIDATION OF THE LIVER IN THE CONDITIONS OF HEAT INFLUENCE ON THE ORGANISM

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Abstract Modern environmental conditions dramatically increased the level of radiculopathic processes in the body. Heat exposure stimulates the generation of reactive oxygen species, inducing peroxidation of lipids, resulting in the development of hypoxia. The application of the remaxol in the conditions of long heat

exposure of the organism of animals under experiment leads to the stabilization of the processes of peroxidation against the increase of antioxidant system activity.

Key words: remaxol, heat exposure, biological membranes lipid peroxidation, products of peroxidation (lipid hydroperoxides, diene conjugates, malonic dialdehyde), antioxidant system.

Heat stress leading to the development of different disregulation processes directed to the transformation of the formed homeostasis creates favourable conditions for the radicals formation and contributes to the depletion of intensity of antioxidant system in the warm – blooded organism [1, 4]. During adaptation of the organism to heat disproportion in the hormonal and energy state of anabolic processes is observed, deficiency of bioenergetic resources and hypoxia of tissues occur [5]. A complex mechanism of development of hypoxia in the organism, multi – component system of biochemical and metabolic processes appearing in the case of different pathology explain difficulties in administering the drugs correcting functions of the respiratory chain and other metabolic processes bringing energetic substrata. In this case, the use of drugs containing succinic acid which is one of metabolites of Krebs cycle is perspective [2, 3].

Materials and methods. In experimental conditions the possibility to correct free radical lipid oxidation of rats' organism membranes was studied with the introduction of the succinate containin drug called remaxol (Polysan, St.Petersburg). The animals were divided into 4 groups and each of them had 30 rats: intact animals which were held in standard conditions of vivarium; the control group in which rats were exposed to heat during forty-five minutes daily; the experimental group in which before the effects of heat animals had a daily intake of the remaxol in a dose of 50 mg/kg; the experimental group in which before the effects of heat animals had a daily intake of the remaxol in a dose of 100 mg/kg. The intensity of peroxidation processes was assessed by examining the contents of hydroperoxides lipids, diene conjugates, malonic dialdehyde and the main components of the antioxidant system, (ceruloplasmin, vitamin E) in the liver homogenate animals. The results obtained were subjected to statistical analysis with calculation of parametric criteria Student.

It was found out that in the liver tissue of experimental animals a daily heat exposure during forty-five minutes contributes to the increase of lipid hydroperoxides level (by 34 – 41%), of diene conjugate (by 45 – 50%), and of malonic dialdehyde (by 62 – 74%) against the decrease of antioxidant system activity in the liver of intact animals. The introduction of the remaxol to rats in the conditions of heat exposure contributes to the reliable decrease in the liver of lipid hydroperoxides by 22 – 34%, of diene conjugates – by 21 – 33%, and of malonic dialdehyde by 33 – 43% in comparison with the rats of the control group. While analyzing the effect of the remaxol on the activity of the components of antioxidant system it was shown that the level of ceruloplasmin in the liver of animals was reliably higher by 35 – 44%, of vitamin E by 28 – 43% in comparison with the same parameters of the rats of the control group.

So, the application of the remaxol in the conditions of long heat exposure of the organism of animals under experiment leads to the stabilization of the processes of peroxidation against the increase of antioxidant system activity.

Literature

1. Bacherikov A.N., Kuzminov V.N., Tkachenko T.V. Modern ideas about the system of thermoregulation. Bulletin of the psychiatrist. Pharmacotherapy 2006; 1:178-182 (in russian).

2. Dorovskikh V.A., Simonova N.V., Dorovskikh Yu.V., Li O.N. Correction of cold effect by means of the drug with succinic acid. Bulletin physiology and pathology of respiration 2013; 49:82-86 (in russian).

3. Dorovskikh V.A., Li O.N., Simonova N.V., Dorovskikh V.Yu., Shtarberg M.A., Landyshev S.Yu., Mishuk V.P., Savinova T.A. Effect of succinate containing drugs on the intensity of peroxidation in the conditions of cold exposure. Bulletin physiology and pathology of respiration 2013; 50:56-60 (in russian).

4. Dorovskikh V.A., Simonova N.V., Simonova I.V., Shtarberg M.A. Adaptogens of vegetable origin in prophylaxis of respiratory apparatus diseases at children of babyhood. Far Eastern Medical Journal 2011; 1:41–44 (in russian).

5. Dorovskikh V.A., Tseluyko S.S., Simonova N.V., Anokhina R.A. In the world of antioxidants. Blagoveshchensk, 2012 (in russian).

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PHYTOCORRECTION OF OXIDATIVE STRESS IN EXPERIMENT

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Abstract The search and development of methods for correction of oxidative stress in conditions of exposure to adverse environmental factors is a topical problem of modern medicine. In experimental conditions the possibility to correct free radical lipid oxidation of rats' organism membranes was studied with the oral introduction of the tincture of herb convolvulus that contains the complex of natural antioxidants. The applica-