contents of hydroperoxides lipids, diene conjugates, malonic dialdehyde and the main components of the antioxidant system (ceruloplasmin, vitamin E) in the blood plasma of patients. The results obtained were subjected to statistical analysis with calculation of parametric criteria Student.

After the polychemotherapy there were detected higher levels of the products of the lipid peroxidation in the blood plasma of the patients. The introduction of reamberin patients contributed to a significant decrease in plasma lipid hydroperoxides on 26%, diene conjugates – by 16%, malonic dialdehyde – on 30% compared with patients in the control group. While analyzing the effect of the succinate containing drug on the activity of components of antioxidant system it was found that the levels of ceruloplasmin in the blood was higher than in patients of control group in 67%, vitamin E – 13%.

Thus, the inclusion of reamberin in the treatment of patients with ovary cancer should be considered as pathogenetically justified, clinically justified and promising.

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INFLUENCE OF COMPLEX CHEMICAL POLLUTION OF ATMOSPHERIC AIR ON THE FORMATION DISEASES RESPIRATORY SYSTEM OF THE POPULATION OF THE AMUR REGION

Korshunova N.V., Gnityuk O.A., Gnityuk A.A.
Amur State Medical Academy, Blagoveshchensk, Russian Federation

Abstract The quality of atmospheric air in modern cities in many ways determines the health status of the population and is the leading etiological factor in the development of diseases, primarily children, the elderly, and people with chronic respiratory and cardiovascular diseases. We analyzed air quality for the period 2007-2017, incidence rates of respiratory system and calculated the hazard index.

Key words: air pollution, complex of air environment factors, respiratory system.

According to the data of the Main Geophysical Observatory named after A.I. Voyeikov and the Federal Service for Hydrometeorology and Environmental Monitoring in the city of Blagoveshchensk in the Amur Region has been a priority for a number of years in the priority list of Russian cities with the highest level of atmospheric pollution. The list includes cities with a very high level of air pollution, for which the integrated index of atmospheric pollution (IZA) is equal to or higher than 14. IZA takes into account 5 pollutants from the full list of controlled in the city, contributing the most to the level of pollution (nitrogen dioxide, benzpyrene, ammonia, suspended solids, formaldehyde). The value of IZA is calculated from the values of average annual concentrations. The indicator characterizes the level of chronic, long-term air pollution.

Objective Assessment of the importance of air pollution for some health indicators of the Amur Region, the incidence of children as one of the most sensitive populations, to improve the detection of pathology, improve the quality of diagnosis and treatment, and the development of preventive measures.

Materials and methods of research A complex of social and hygienic methods will be used in the work:

- full-scale studies of atmospheric air. Air sampling was carried out for the period 2007-2017 in accordance with RD 52.04.186-89 "Guidelines for the control of atmospheric pollution" and SanNaR 2.1.6.1032-01 «Hygienic requirements for ensuring the quality of atmospheric air in populated areas» continuously throughout the day. The evaluation of the results is carried out in accordance with the requirements of GOST 17.2.3.01-86 «Conservation of nature. Atmosphere. Rules for air quality control of settlements», SanNaR 2.1.6.1032-01 «Hygienic requirements for ensuring the quality of atmospheric air in populated areas», HN 2.1.6.1338-03 «Maximum permissible concentrations of pollutants in the air in populated areas», HN 2.1.6.2309-07 «Approximate safe exposure levels of pollutants in the air of populated areas».

- assessment of the spread of diseases according to the population's circulation according to the official form of statistical reporting № 12 (MCD-10) for the period 2007-2017. The method of regression analysis is planned to establish the relationship between environmental factors and the level of spread of diseases.

- a set of statistical analysis methods: paired and multidimensional correlation analysis by Pearson and Spearman, multidimensional linear regression analysis. Statistical processing of the results of the research will be carried out using application packages Microsoft Office Excel 2007 and Statistica 6.0 for Windows.

Results and discussion When calculating the health risk assessment in accordance with the «Guidelines for assessing the health risks of the public when exposed to environmental pollutants» (P. 2.1.10.1920-04), the following results were obtained: a risk profile for the development of non-carcinogenic effects with combined and complex effects chemical compounds is based on the calculation of the hazard index. In conditions of combined exposure, the total hazard index characterizes the risk of adverse effects on the critical organ (system). The total index of the hazard of exposure to the respiratory organs was 6.52, on the organs of the cardiovascular system 0.4; eyes 3,2. Thus, if the hazard index of substances does not exceed one, then the probability of human development of harmful effects during daily intake of a substance during life is insignificant and such an impact is characterized as permissible if it exceeds, then the probability of harmful effects in humans increases in proportion to the increase in the hazard index, however It is impossible to accurately indicate the magnitude of this probability. The complex effect of pre-threshold levels of chemical air pollution can affect the morbidity of the pulmonary system of the inhabitants of the Amur Region.

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INFLUENCE OF DRINKING WATER QUALITY ON THE FORMATION OF NON-INFECTIOUS DISEASES OF THE DIGESTIVE SYSTEM IN THE AMUR REGION

Korshunova N.V., Gnityuk O.A.
Amur State Medical Academy, Blagoveshchensk, Russian Federation

Abstract The Amur Region is part of an extensive biogeochemical province in the Russian Far East characterized by a pronounced deficiency of biogenic elements in environmental objects. The geochemical situation in the region is most affected by the chemical composition of drinking water in the water supply systems of the population. Drinking water has a low content of calcium, fluoride, magnesium, potassium on a background of low overall hardness and high iron content.

Key words: drinking water quality, digestive system

Pollution of drinking water with chemical substances of technogenic origin is considered to be the priority factors that form negative trends in the prevalence of diseases of the digestive system [1]. According to the Ministry of Health of the Russian Federation, the disease of the digestive system as a whole in Russia is 3568.0 per 100 thousand people, in the Far East, 4263.2 per 100 thousand people, the Amur Region is «leading» in this indicator, where the incidence in 2016 was 9690.2 per 100 thousand people [2].

Thus, the territory of the Amur region is characterized by steady growth and a high incidence of non-infectious pathology of the digestive system. According to the scientific literature it is supposed that the leading factors of the risk of diseases of the digestive system can be regional features of the natural mineral composition of water in drinking water supply systems. The issues of assessing the dependence of the health status of the population on the quality of the habitat in the developed on the territory of the Amur region are especially relevant.

Objective To establish the ecological and epidemiological component of the formation of the primary incidence of somatic pathology of the digestive organs of the population in the Amur Region.

Materials and methods The work used information about samples of drinking water, primary morbidity of the population with somatic pathology of the digestive organs, the following institutions and organizations of the region: the Amur Regional Center for Hydrometeorology and Environmental Monitoring, the Department of Rospotrebnadzor for the Amur Region, the territorial agency of the Federal State Statistics Service for the Amur Region, Amur Medical Information and Analytical Center; as well as a set of statistical analysis methods: paired and multidimensional correlation analysis by Pearson and Spearman, multidimensional linear regression analysis/

Results and discussion According to the office of Rospotrebnadzor for the Amur Region, the chemical composition of the natural waters of the Amur Region is primarily formed under the influence of natural factors characteristic of the Far Eastern region: physical and geographical and hydrological conditions, geochemical natural background lead to the fact that the drinking water of the water supply systems in the region is characterized by a high content iron (in some areas exceeding 5 MAC (maximum allowable concentration)) and manganese [3].

Concentrations of other chemicals do not exceed the MAC. The regional features of drinking water also include its low mineralization and a pronounced shortage of nutrients.

At present, the calculation of the health risk assessment is carried out in accordance with the «Guidelines for the assessment of the health risks of the public when exposed to pollutant chemicals» (P. 2.1.10.1920-04). Thus, the pathogenic effect of drinking water on the digestive organs of the population of the Amur region is possible.

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ANTIOXIDANT PROPERTIES OF REAMBERIN IN THE CONDITIONS OF ACUTE NEUROSURGICAL PATHOLOGY

T.V. Kan, V.A. Dorovskikh, N.V. Simonova, R.A. Anokhina, M.A. Shtarberg, A.Ch. Kan
Amur State Medical Academy, Blagoveshchensk, Russia

Summary. Studied the antioxidant activity of reamberin in acute neurosurgical pathology: 13 patients with standard therapy received the drug reamberin (Polysan, St.Petersburg, Russia) intravenously 400 ml of the solution for infusion of 1,5% at a rate of 90 drops/min (1-4,5 ml/min) 1 times a day; 10 patients (control group) received only standard