and in the case of nicotine reduces the ability of liver microsomes to oxidize .

Thus, the activation of non-enzymatic mechanisms of lipid peroxidation in vitro in the presence of nicotine, hexamethonium leads, in the case of nicotine, to an increase in the oxidation of lipids microsomes of the liver, and in the case of hexamethonium, to a decrease.

Reducing the molar concentration of nicotine in the incubation medium leads to a decrease in lipid oxidation of liver microsomes and a decrease in the molar concentration of hexametonium in the incubation medium also leads to a decrease in the ability of liver microsomes to oxidize.

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OXIDATION OF LIPIDS LIVER MICROSOMES BY ENZYMATIC AND NON-ENZYMATIC MECHANISMS IN VITRO IN THE PRESENCE OF NICOTINE, HEXAMETHONIUM, AFTER HEAT TREATMENT OF LIVER MICROSOMES

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Keywords: nicotine, gexametonium, enzymatic mechanism oxidation , non enzymatic mechanism oxidation, microsomes, heat treatment.

Abstract. Work´s carried out to determine the ability to oxidize lipids of liver microsomes after heat treatment by nonenzymatic mechanisms and by enzymatic mechanisms in the presence of nicotine, gexametonim were. The results showed – reduces the ability of the liver microsomes to oxidize in the presence of nicotine when inducing the enzymatic mechanisms, in the presence of hexomethonium the lipids of the liver microsomes become less sensitive to oxidation. Nicotine of a molar concentration of 10-4 M leads to a slight increase in oxidative activity, and in molar concentrations of 10-5 M, 10 -6 M prevents the oxidative activity of non-enzymatic mechanisms of LPO. Hexamethonium of a molar concentration of 10 -4 M does not significantly decrease the ability of lipids of liver microsomes to oxidize, and at 10 - 5 M, 10 -6 M molar concentrations increases the ability of liver microsomes to oxidize.

Of protein components of plasma membranes hepatocyte to participate in the LPO of the liver the opportunity was assessed. It suggested that the protein formations of the membranes of the endoplasmic reticulum of hepatocytes (liver microsome‘s) may also participate in the LPO process. In the series of experiments carried out, in order to switch off the protein structures from lipid oxidation, liver microsomes membranes subjected to heat treatment at a temperature of + 80 0 C was.

Lipid microsomes of the liver subjected to heat treatment, in the presence of nicotine, hexamethonium, oxidation in vitro carried out with the induction of enzymatic (NADP • H-dependent) and non-enzymatic (ascorbate-dependent) LPO mechanisms was.

The results obtained indicate the presence of nicotine, in an incubation medium with a molar concentration of 10-4 M; 10-5 M; 10-6 M after heat treatment of liver microsomes results in a more pronounced decrease in the ability of microsome lipids to oxidize when inducing enzymatic mechanisms of LPO.

Enzymatic oxidation of microsome lipids undergoing a thermal procedure and in a hexametonium incubation medium with a molar concentration of 10-4 M; 10-5 M; 10-6 also changes the direction of oxidation- the lipids of liver microsomes in the presence of hexamethonium become less sensitive to LPO and this tendency increases with decreasing molar concentration of hexametonium in the incubation medium.

Thus, the thermal inactivation of the protein components of the membranes of the endoplasmic reticulum of hepatocytes (liver microsome’s) reduces the ability of the liver microsomes to oxidize in the presence of nicotine when inducing the enzymatic mechanisms of LPO to a greater extent than in microsomes not subjected to heat treatment.

Oxidation of microsomal lipids subjected to heat treatment in the presence of hexomethonium also changes the direction of oxidation of lipids- the lipids of the liver microsomes become less sensitive to oxidation by enzymatic mechanisms.

Thus, the heat treatment of liver microsomes, as in the case of nicotine, and in the case of hexomethonium, changes the direction of lipid oxidation of liver microsomes when in vitro induced by enzymatic mechanisms of LPO was.

Thermal treatment of liver microsomes in the presence of nicotine and hexomethonium in the induction of non-enzymatic mechanisms of lipid peroxidation in vitro also changes its direction of oxidation of liver lipids - nicotine of a molar concentration of 10-4 M leads to a slight increase in oxidative activity, and in molar concentrations of 10-5 M, 10 -6 M is not expressed, but it prevents the oxidative activity of non-enzymatic mechanisms of LPO.

Hexamethonium of a molar concentration of 10 -4 M does not significantly decrease the ability of lipids of liver microsomes to oxidize, and at 10 - 5 M, 10 -6 M molar concentrations increases the ability of liver microsomes to oxidize.

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BREAST CANCER AND OVARIANS IN WOMEN OF AMUR REGION

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Summary: The study materials were common in Russia, the accounts and records of the official cancer statistics. The basic indicators of provision of medical care for women with cancer of reproductive system in the Amur region. The maximum number of cases were in age 50 years and older. Decreased the number of pa-tients with I –II stages of the process, but became more of patients with ad-vanced forms of cancer, especially when the visual localization of the disease. Mortality rates increased for all malignant tumors of the female reproductive system. Mortality in the first year since diagnosis has consistently increased since 1998. Analyzed the quality of cancer services on the index of accuracy of the accounting of this category of patients that is traditionally comparable to other regions of the country.

Key words: breast cancer and ovarians, incidence, mortality

Malignant neoplasms (ZNO) of the reproductive system are the leading oncological pathology in the female population of the economically developed countries of the world. Oncological diseases are included in the group of “dis-eases of civilization” and are rightfully considered to be the most important public health problem. In order to successfully diagnose and treat, systematic preventive and curative measures are necessary, which help to identify onco-logical pathology at early stages and improve oncological care for patients.

In 2015 in Russia as a whole accounted 66621 cases of breast cancer (BC) and 14049 cases of ovarian cancer (OC). “Gross” figure was BC – 84,79 o/oooo, a number of 17.88 o/oooo and standardized (world standard) – 49,75 o/oooo and of 11.03 o/oooo , respectively. Malignant neoplasms of the reproductive system have the greatest specific weight in the General structure of oncological pathol-ogy among the feminine population of the Russian Federation (38.9 percent). Breast cancer is in women the first place (20,9%), in third place is uterine can-cer (7.7 per cent). Cause of death malignant neoplasms of reproductive system (breast and ovaries) 2015 at 30841 women, which accounted for 22.3% of the total number of women who have died in the country from cancer. [5]

The results of numerous studies suggest little progress in improving quali-tative and quantitative indicators in this group of patients, as morbidity and mortality. [6,7,10]

Risk factors for development of breast cancer and ovarian are more than 120 of modifiers, the most significant of which (90-95%) are considered to be environmental factors: climatic, geochemical, and others. The uneven spread of malignant tumors occurs not only in different countries, different ethnic groups, but in separate regions of the same country. This aspect can be used as a basis to explore and identify the real risk factors of tumor pathology and to allow in the future to form a scientific basis for the development of cancer con-trol programmes taking into account geographical and bio-social features of settlements and their inhabitants. [1, 4, 5, 11]

Amuroblast, a part of the far Eastern Federal district (DFO) related to ar-eas with sharply continental climate, lack of some trace elements in the envi-ronment and a violation of their ratios, depending on the biogeochemical divi-sion of the province into