

Mathematical and statistical analysis was performed by «Statistica 10.0». We calculated the arithmetic mean (M), standard error of the arithmetic mean (m). Evaluation of statistical significance was performed using the parametric Student's t-test.

The age of patients were between 19 and 32 years. The body mass index was 20.29 ± 0.44 kg / m² and 21.05 ± 0.41 kg / m² in groups respectively ($p > 0,05$). In the study group the chronic tonsillitis was observed in 20% of women, the thyroid disease in 7.1%, in the control group 5.7% and 1.4% respectively. The female infertility associated with anovulation and polycystic ovaries amounted to 2.9%. In The 10% of patients had heavy menstrual bleeding, they received hormonal treatment for the regulation of the menstrual cycle.

The results. In patients of the study group the concentration of VEGF was 314.15 ± 47.34 pg / ml, in the control – 209.06 ± 20.41 pg / ml ($p < 0.05$). With a high concentration of VEGF un the study group the expression of VEGF-R1 was not significantly different from the control group (137.18 ± 9.26 pg / ml versus 141.84 ± 5.09 pg / ml; $p > 0.05$). The expression of VEGF-R2 in patients of the study group was 10205.70 ± 332.82 pg / ml, and was within the control values (10084.07 ± 363.65 pg / ml). The angiogenic coefficient (VEGF / VEGF-R1) in the study group of patients was higher (2.36 ± 0.41) than in the control group (1.52 ± 0.15 ; $p < 0.05$).

Thus, in patients with EMP the expression of VEGF was higher than in the control group by 1.5 times ($p < 0.05$) and there was not differ in concentration of VEGF-R1. Perhaps the overexpression of VEGF in patients with EMP is the result of the hypoxic condition of the endometrium due to a heavy and prolonged menstrual bleeding, than in the control group and is aimed for strengthening the neoangiogenesis in the endometrium. As a result, the ratio of VEGF / VEGF-R1 is 1.5 higher than in the control group ($p < 0.05$) and indicates the formation of atypical angiogenesis.

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MORPHOLOGY OF INFLAMMATORY REACTIONS IN THE LUNG TISSUE WITH DRUG-RESISTANT TUBERCULOSIS

Makarov I. Yu., Barabash R. A.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstract. We studied the features of the structural and functional characteristics of tissue processes in the basin of the microvasculature in the lung tissue in patients with drug-resistant tuberculosis.

Material from 62 patients who died of fibro-cavernous pulmonary tuberculosis in hospitals of the Amur region was investigated. Groups are divided according to the type of drug resistance: I group - multidrug-resistant (43 people), II group -19 people with drug-sensitive saved.

A number of features, indicating a rapid, progressive course of the destructive tuberculosis in the lungs, with the most significant morphological changes were in patients suffering from drug-resistant pulmonary tuberculosis. In these patients, there was vastness and the prevalence of caseous necrosis and pronounced exudative alterative reaction in conjunction with a deep damage of the microvasculature.

Key words: tuberculosis, pathomorphology, drug resistant, inflammation.

Introduction. The phenomenon of drug resistance (DR) of the pathogen, which has a direct impact on the clinical manifestations and epidemiology of TB infection remains an urgent socio-economic, medical and public problem that requires urgent measures to further improve TB of [4.2]. To a large extent the development, course and outcome of the tuberculosis process depends on the non-specific reactivity of the organism, which ultimately determines the nature of the inflammatory response [1,3,5].

The character of morphological changes in the lung tissue is directly dependent on the severity of the manifestations of inflammatory response, which is associated with the severity of disease, determine the

nature, form and extent of the process.

Objective: to conduct histopathology assessment of the structural and functional characteristics of tissue processes in the lung tissue in patients with multidrug-resistant (MDR) of the pathogen.

Materials and methods: autopsy material, covering the 62 patients who died of fibro-cavernous pulmonary tuberculosis in hospitals of the Amur region. Groups are divided according to the type of agent LU: I group - MDR (43 people), II group - 19 people with drug-sensitive saved. Was determined the prevalence of lesions of the lung tissue, studied the cellular microenvironment and histological features of arterioles, capillaries and venules in the focus of inflammation. For morphometric studies received pieces of lung tissue destruction zones of active inflammation, the walls of the pulmonary cavities with qualitative and quantitative determination of cellular composition.

Results: the most significant morphological changes were detected for persons suffering from pulmonary tuberculosis DR.

In these patients, there is the prevalence of a specific severity of lung lesions with caseous layer in the cavity, and the tuberculosis foci of infection, extensive seroplastic inflammation in adjacent and distant from the cavity of lung parenchyma. It is worth noting that even in all cases, we observed an increase in the permeability of the phenomenon and vasculitis. However, in the cases of DR-TB lesion was more common and combines not only the destruction of the endothelium, and thrombosis of large and small vessels. Material from patients with drug-sensitive saved had the characteristics of exudative productive process with a less pronounced inflammatory response, in which there was fibrosis of the lung parenchyma. While the streets of Latvia, who died of fibro-cavernous pulmonary tuberculosis, we observed a pronounced exudative alterative reaction in conjunction with a deep damage of the microvasculature.

Conclusion. The results of the study show that there is a relationship between the inflammatory response and the morphological features of the reactions in the lung parenchyma in patients with DR TB, which depends on the severity of the first. The most pronounced changes in patients died from progressive fibro-cavernous tuberculosis, released during the life of Mycobacterium tuberculosis with multidrug-resistant and multi-drug resistant.

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MORPHOFUNCTIONAL CHARACTERISTICS OF LIMB SKIN OF RATS IN PRE-REACTIVE PERIOD AT A LOCAL COOLING ON THE BACKGROUND OF DIHYDROQUERCETIN

Malyuk E.A., Tseluyko S.S., Krasavina N.P.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstract This article presents the results of the laboratory analysis of the drug-dihydroquercetin as a cryoprotectant, ie substance that prevents or reduces the effect of cold damage. In the open areas of the body frostbite may occur caused by damaging effect of cold directly to the tissue. Local cooling is one of the most common environmental impacts that people living in the northern regions periodically undergo. Preparations of antioxidant activity, in particular dihydroquercetin – the basic flavonoid compound obtained from Siberian larch wood, has a wide spectrum of pharmacological effects, such as high antioxidant activity, it can be used as a substance, preventing cell swelling.

Key words: epidermis, dermis, keratinocytes, cold injury, frostbite, local cooling of the skin, dihydroquercetin.

Temperature is the most important environmental factors affecting human and animals. Effect of low temperature on biological objects is dependent on the degree of maturity of the body and phylogenetic implemented through different mechanisms in in vitro circumstances and in vivo [1].

When exposed to low ambient temperatures on the whole organism occur, usually cold be damaged mechanism of action. First - this is a direct cryodestruction. But the most important thing for us is the second mechanism - the effect of low temperatures on the organism as a whole, at a temperature of environment environmental below ~ 30 ° C, in the open areas of the body may occur frostbite, caused damaging effect of cold