pericarditis. Currently, the attention of cardiologists to colchicine has again been attracted due to the study of the role of systemic inflammatory response in the development of atherothrombotic cases.

The aim of the study was to investigate the effectiveness of colchicine in inhibiting the activity of the inflammatory process in the pathogenesis of ischemic heart disease (IHD) and its acute and chronic forms. The study of the PubMed database for relevant research in the literature has been conducted. Articles on the mechanism of action of colchicine and clinical applications in IHD have been identified and reviewed.

The most studied mechanism of action of colchicine is its ability to bind to tubulins, thus blocking the formation and polymerization of microtubules. In addition, studies have shown that the biological effects of colchicine are dose-dependent (different effects occur at different concentrations of colchicine) and are directly related to the effects of colchicine on cell migration, cytokine release and intracellular movement, which play an important role in cell dysfunction which are involved in the development of inflammation. The effectiveness of prophylaxis colchicine for the prevention the risk of cardiovascular complications in patients with chronic and acute ischemic heart disease has been demonstrated in clinical trials LoDoCo (Low-Dose Colchicine trial) and COLCOT (CoLchicine Cardiovascular OuTcomes Trial). According to a randomized placebo-controlled study of LoDoCo2, colchicine at low doses (0.5 mg/day) reduces the incidence of ischemic complications and the need for revascularization in patients with stable ischemic heart disease. According to 5 randomized controlled trials, long-term use of colchicine reduced the risk of cardiovascular cases for patients with atherosclerosis significantly, as well as similar mortality from non-cardiovascular diseases (compared with placebo). On the other hand, the results of COVERT-MI (Colchicine for Left Ventricular Remeling Treatment in Acute Myocardial Infarction) were reported at the European Society of Cardiology 2021, which did not show the effectiveness of colchicine in the size of the infarction area and revealed an unexpected threefold increase in left ventricular thrombus in the group of colchicine which requires further research among this group of patients. A recent meta-analysis evaluated adverse cases in 14,983 patients. The results showed that the use of colchicine for the treatment of cardiovascular disease is associated with an increased risk of gastrointestinal adverse cases (especially diarrhea) and prevention of drugs taking associated with colchicine-associated adverse cases (mainly in relation to gastrointestinal symptoms), compared with placebo. It should be noted that among patients who have been receiving a lower daily dose (0.5 mg/day) of colchicine over a long period of time (> 6 months), the risk of gastrointestinal adverse cases is similar to placebo.

With the continuous understanding of the mechanisms of atherosclerosis, anti-inflammatory therapy is approaching clinical applications. Current studies have shown that colchicine, as an anti-inflammatory drug, is likely to become a first-line treatment for atherosclerosis and other cardiovascular inflammatory diseases in the future.

Thus, colchicine is an affordable, safe and effective drug that can be successfully used for the secondary prevention of atherosclerotic cardiovascular disease if its tolerability and benefits for the cardiovascular system are confirmed in current clinical trials.

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THE STATE OF THE SYSTEM OF FREE RADICAL OXIDATION AND THE ANTIOXIDANT DEFENSE SYSTEM OF THE BODY IN NEWBORNS WITH IMPAIRED FUNCTIONAL STATE OF THE CARDIOVASCULAR SYSTEM

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According to the literature, damage to body cells, in particular myocardium, due to hypoxic exposure is caused by the activation of free radical oxidation (FRO) processes, which, with insufficient antioxidant defense components, triggers a cascade of generic oxidative stress (OS) reactions, as a result of which pathological changes occur at the molecular, cellular, tissue, organ and systemic levels. Based on a comprehensive study of the main components of the FRO and the antioxidant defense system (ADS) system, we made a conclusion regarding their significant role as

one of the links in the pathogenesis of violations of the functional state of the cardiovascular system (CVS) in perinatal pathology.

182 children were examined. Group I consisted of full-term newborns with a general state of moderate severity (65); Group II - newborns with a serious condition (57). The control (III group) included 60 relatively healthy newborns.

The results obtained showed that with an increase in the severity of the condition in newborns of groups I and II of the study, an increase in the activity of FRO processes occurred, as evidenced by an increased content of malonic aldehyde (MA) in erythrocytes and a high level of oxidative modification of proteins (OMP) in the blood plasma. Namely, the MA level in children of group I increased to 25.14 ± 1.31 μmol / l, in children of group II - up to 34.97 ± 1.83 μmol / l, which had probable differences in comparison with children of group III – 15.10 ± 0.77, $p<0.05$. The level of OMP during physiological adaptation in newborns of the III group was 1.39 ± 0.07 o.o. g / ml, the increase in the severity of the condition in children of the I and II observation groups was accompanied by an increase in the indicator to 1.81 ± 0.09 and 2, 66 ± 0.14 p.u. g / ml, respectively, $p<0.05$.

Along with the activation of the FRO system in newborns, a certain insufficiency of the ADS mechanisms was observed, which was confirmed by significant differences in a number of indicators of serum and blood erythrocytes. So, if the level of ceruloplasmin in the blood serum of children of group I increased to 455.74 ± 224.65 mg / l, in children of group II there was a significant decrease in the level of the indicator - to 162.70 ± 8.74 mg / l, with its normal value in group III - 253.83 ± 13.65 mg / l, $p<0.05$. Catalase activity during physiological adaptation in children of group III was 11.66 ± 0.61 μmol / min, in children of experimental groups I and II, the indicator probably increased - in accordance with 32.53 ± 1.73 and 43.46 ± 2, 19 μmol / min. The activity of the enzyme glutathione-6-phosphate dehydrogenase (Gl-6-PD) significantly increased in newborns of group I - up to 11.57 ± 0.60 μmol / min and decreased in children of group II - to 5.16 ± 0.26 μmol / min, with control values in children of III groups - 6.16 ± 0.33 μmol / min·HB, $p<0.05$. The level of HS-groups in newborns tended to decrease in line with the increase in the severity of the pathology. So, if in children of group III it was 0.78 ± 0.04 μmol / l, in newborns of group I - 0.46 ± 0.02 μmol / l, then in children of group II it decreased to 0.32 ± 0, 0.1 μmol / L, $p<0.05$. The γ-glutamyltransferase (GGT) activity in the newborns of the observation groups had a tendency to increase, taking into account the deepening of the severity of the condition - 87.70 ± 4.43, 90.21 ± 4.57 and 94.80 ± 4.83 units / l, respectively, in the III, I and II groups, 0.05.

The results of the study indicate that the imbalance in the parameters of the FRO and ADS system leads to the accumulation of peroxides and damage to the integrity of the cell membranes of cardiomyocytes, which is one of the defining links in the development of cardiovascular disorders in perinatal pathology.

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DEPENDENCE OF LIPID PEROXIDE OXIDATION AND ANTIOXIDANT PROTECTION IN PATIENTS WITH HYPERTENSION FROM THE FASTING INSULIN LEVEL

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The aim of the study was to examine the features of lipid peroxidation (LPO) and antioxidant protection (AOP) in patients with hypertension (AG) depending on the level of fasting insulinemia.

44 patients with AG of I-II stages were examined. The obtained results were compared with the data of 24 practically healthy individuals, representative by age and sex, who formed the control group.

Blood for biochemical examination was taken from the ulnar vein in the morning 12 hours after the last meal. The level of fasting immunoreactive insulin (IRI) in the blood was determined using standard kits from DRG International Inc (USA) by enzyme-linked immunosorbent assay. Normal fasting insulin concentrations were considered to be up to 25 μIU / ml for men and up to 23