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The Examined Patients Before and After Chemotherapy in the Study Groups

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Abstract

Along with this, the HEART RATE is one of the leading factors in the pathogenesis of CORONARY HEART DISEASE. The disease is one of the main determinants of myocardial oxygen consumption and is closely related to the duration of diastole. Data from numerous authors claim that with a decrease in the severity of ta chycardia, myocardial perfusion improves duye to elongation of the diastole of the left ventricle.
Key words: heart rate, coronary heart disease, myocardium, oxygen, pathogenesis, disease, tachycardia, perfusion.

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As can be seen from the presented data, women with breast cancer and coronary heart disease prevailed by 34% ($p<0.01$) over a patient with breast cancer without coronary heart disease in total cholesterol. Along with this, women with coronary heart disease have a more significant and reliable increase in T by 20% ($p<0.05$), LDL by 31% ($p<0.01$) compared with the control group, and a decrease in HDL by 37%, respectively.

Numerous studies have proven that there is a linear relationship between lipid levels and cardiovascular risk, and therefore dyslipidemia is the main cause of increased mortality from these diseases.

Clinical and experimental studies have proven that lowering LDL levels is the most effective. Along with this, there is no convincing evidence in favor of reducing elevated TG and increasing HDL levels.

We analyzed the lipid composition of the blood of women with breast cancer with and without coronary heart disease, depending on the therapy performed with various classes of chemotherapy drugs.

As can be seen from the data obtained, after therapy with doxorobucin at a dose of 550, the concentration of OHC in women with breast cancer and coronary heart disease began to increase by 25% ($p<0.05$), triglycerides by 48% ($p<0.01$), LDL by 30% ($p<0.01$) relative to baseline values. There was no significant dynamics on the part of HDL.

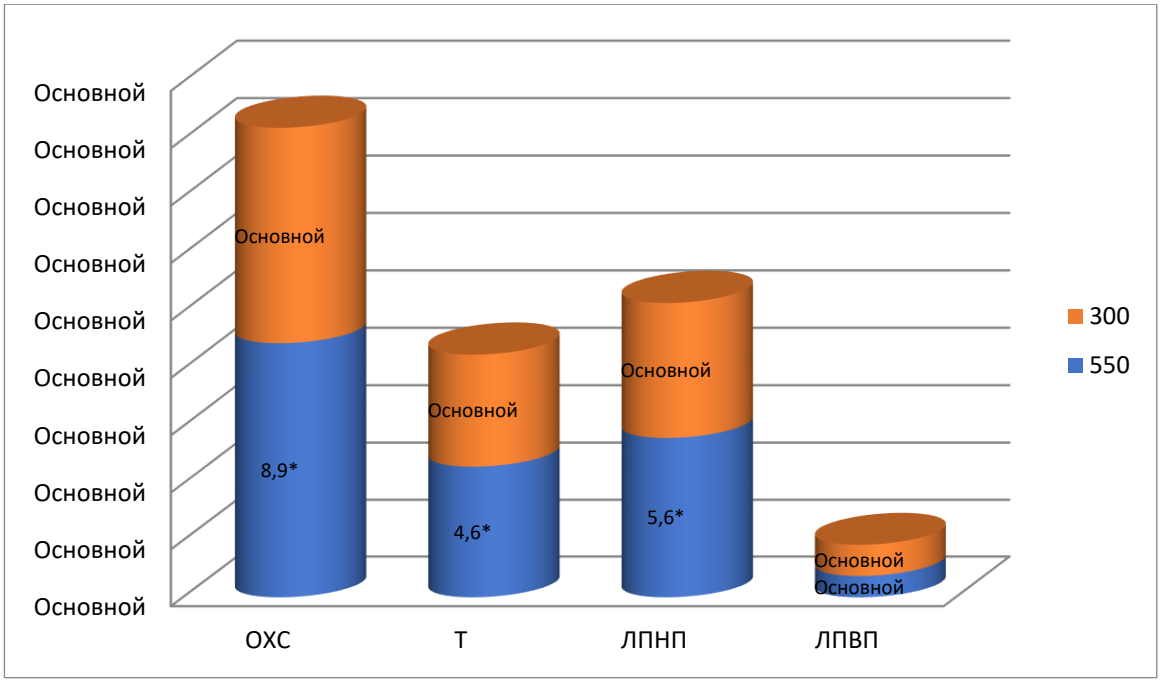

Figure 1. Comparative characteristics of blood lipid composition against the background of different doses of doxorobucin

In the group of women without coronary heart disease, a more significant picture occurred on the part of OHS and LDL. The studied indicators compared with the initial data were 20% higher ($p<0.05$) and 63% higher ($p<0.01$), respectively

Doxorobucin in both study groups at a dose of 300 also negatively affected the blood lipid profile. For example, after therapy with doxorubtzin at a dose of 300, the content of OHC in the group of women with breast cancer and coronary heart disease by 12% ($p<0.05$), TG by 30% ($p<0.01$), LDL by 17% ($p<0.05$) had high values compared to the primary data. In the control group, significant dynamics occurred only on the part of the OHS, where the studied indicator was 12.5% ($p<0.05$) higher relative to the initial data.

Thus, doxorubicin had a negative effect on blood lipid composition in high doses compared with low doses, especially in women with coronary heart disease.

Shows a comparative characteristic of the lipid composition of the blood after doxorobucin therapy in various doses.

At a dose of 550 doxorubucine in women with breast cancer and coronary heart disease, compared with a dose of 300 OHC, it has high values by 17% ($p<0.05$), T by 18% ($p<0.05$), LDL by 19% ($p<0.05$), and HDL by 7% had low values.

We also analyzed the effect of the drugs herceptin and paclitaxel on the lipid structure of the blood in women with breast cancer.

The results of the analysis showed that the drug herceptin does not have such a pronounced negative effect on lipid metabolism as doxorobucin. In the group of women with breast cancer and coronary heart disease, compared with baseline data, there was an increase in the level of atherogenic lipids, in particular, OHC by 13% ($p<0.05$) and LDL by 36% ($p<0.05$).

The drug paclitaxel as herceptin was able to increase the level of OH by 18% ($p<0.05$) and LDL by 36% ($p<0.05$) relative to baseline data in those women who had coronary heart disease against the background of breast cancer.

Thus, a pronounced violation of lipid metabolism occurs in the group of women with breast cancer and with the presence of coronary heart disease. All the chemotherapy drugs used contributed to the progression of dyslipidemia in these categories of people. However, a more significant negative picture can be seen against the background of doxorobucin therapy at a dose of 550.

In the studied groups, when studying the correlation relationship between the main parameters of global longitudinal deformation (GLS) and blood lipid compositions, several relationships were found. However, it should be emphasized that the most significant inverse correlation can be traced in the group of women with breast cancer and coronary heart disease.

The side effects of chemotherapy are: our patients had the following; general weakness; hair loss; bleeding, anemia, hearing loss, tinnitus, nausea and vomiting, decreased appetite.

There is a recommendation where the principle of chemotherapy is indicated, it is applied in the maximum dose in the minimum period of time, the interval between courses is 21 days, this corresponds to the recovery time of the bone marrow. Side effects began to appear at different follow-up periods, at 4 and 18 hours after chemotherapy. Side effects were common to all groups, but they were of a different nature in terms of frequency.

Women with breast cancer and coronary heart disease complained the most after taking doxorubicin at a dose of 550 mg/m2, 80% (n=20) of 25 patients had decreased appetite in 80% (n=20) cases, and 44% of 23 women (n=16) at a dose up to 300 mg/m2.

Literature

1. Mareev V.Yu., Ageev F.T., Arutyunov G.P. and other National recommendations of OSSN, RKO and RNMOT for the diagnosis and treatment of CHF (fourth revision). //Heart failure.- 2013.- Vol.14, 7 (81).- P.251-276.
2. Poddubnaya I.V., Orel N.F. A guide to the chemotherapy of neoplastic diseases. Ed. N.I. Translator. - M., 2011. – 435p.
3. Russian clinical guidelines for the diagnosis and treatment of lymphoproliferative diseases. Edited by prof. Poddubnoy I.V., prof. Savchenko V.G. - M., Buki Vedi, 2016. - 112s.
4. 6. Shuikova K.V., Emelina E.I., Gendlin G.E. and other Changes in the function of the left ventricle of the heart in patients with lymphomas on the background of the introduction of anthracycline antibiotics. // Russian Journal of Cardiology .- 2016.- Vol.1 (129) .- P.41-46.
5. Curigliano G., Cardinale D., Suter T., et al. Cardiovascular toxicity induced by chemotherapy, targeted agents and radiotherapy: //ESMO Clinical Practice Guidelines Clinical practice guidelines. // Annals of Oncology.- 2012.- Vol.23 (7).- P.155-166.
6. Oliveira G.H., Qattan M.Y., Kindi Sal., et al. Advanced Heart Failure Therapies for Patients With Chemotherapy-Induced Cardiomyopathy. // Circ Heart Fail.- 2014.- Vol.7.- P.1050-1058.
7. Pinto Y.M., Elliott P.M., Arbustini E., et al. Proposal for a revised definition of dilated cardiomyopathy, hypokinetic non-dilated cardiomyopathy, and its implications for clinical

practice: a position statement of the ESC working group on myocardial and pericardial diseases. // Eur Heart J.- 2016.- Vol.37 (23).- P.1850-1858. doi:10.1093/eurheartj/ehv727.
8. Swain S.M., Whaley F.S., Ewer M.S. Congestive heart failure in patients treated with doxorubicin: a retrospective analysis of three trials. // Cancer.- 2003.- Vol.97.- P.2869-2879.
9. Salzer W.L., Devidas M., Carroll W.L., et al. Longterm results of the pediatric oncology group studies for childhood acute lymphoblastic leukemia 1984–2001: a report from the children's oncology group. // Leukemia.- 2010.- Vol.24.- P.355-370.
10. Zamorano J.L., Lancellotti P., Munoz D.R., et al. 2016 ESC Position Paper on cancer treatments and cardiovascular toxicity developed under the auspices of the ESC Committee for Practice Guidelines. //European Heart Journal.- 2016. doi:10.1093/eurheartj/ehw211.