

FEATURES OF THE COURSE AND TREATMENT OF ACUTE CORONARY SYNDROME ASSOCIATED WITH METABOLIC SYNDROME

Nuritdinova N.B., Shoalimova Z.M., Jalilov Sh.Z.
Tashkent Medical Academy, Tashkent, Uzbekistan

E-mail: jalilovshamshod@gmail.com

CARDIO TYUMEN
2023

Introduction: The problem of metabolic syndrome (MS) is important in acute coronary syndrome (ACS): because Each component of MS is a potential trigger for destabilization of the atherosclerotic plaque; optimization of the treatment of ACS with MS is an urgent problem in cardiology [1,2].

The purpose of the study: study the specific effect of statins and micronized fenofibrate in combination with antihypertensive drugs on the development of end points in patients with unstable angina (UA) with MS.

Material and methods: 100 patients with NS and MS were examined. The patients were divided into two groups: I – 50 patients aged 52±6 years (40 men and 10 women), II – 50 patients aged 54±9 years (36 men and 14 women). BMI was on average 31.2±1.3 kg/m². According to baseline demographic and anthropometric data, the subgroups did not differ from each other. For all patients included in the study, before treatment, at 4 weeks (discharge from hospital) and 16 weeks of therapy (outpatient), the lipid composition and carbohydrate profile of the blood (fasting glucose), fibrinogen, CRP were determined, and 24-hour blood pressure monitoring (ABPM) was performed. ECG, EchoCG parameters: ratio of the rate of early blood filling to the rate of late blood filling (E/A), ejection fraction (EF). In both groups Patients, along with generally accepted treatment regimens, were prescribed rosuvastatin at a dose of 20 mg per day. Patients II gr. simultaneously with the above-mentioned drugs, in order to normalize the lipid composition of the blood, the treatment regimen included fenofibrate 145 mg once a day, as well as olmesartan, from 40 mg once a day, taking into account the versatility of the pharmacological effects and the favorable metabolic profile of the drug. In I gr. arbitrary antihypertensive drugs were used. The study was carried out on the day of admission to the hospital, as well as at 4 and 16 weeks of outpatient observation.

By the 30th day of observation, the end points were determined - sudden death, myocardial infarction, recurrent angina attacks, the need for revascularization, acute left ventricular failure, cardiac arrest with successful resuscitation.

Results:

A positive correlation was revealed between the level of hypertriglyceridemia and the indicator of diastolic dysfunction E/A ($r=0.38$; $p<0.01$). According to the degree of influence on the concentration of CRP, therapy with any of the two statins in group I. did not differ with a decrease in CRP values by 31.8±4.2%; and 33.1±4.5%, respectively ($p<0.01$). Therapy in group I patients at 4 weeks of illness led to a significant decrease in total cholesterol levels by 20%, low-density lipoprotein cholesterol (LDL) cholesterol by 20%, and triglyceride (TG) levels by 10% ($p<0.05$). The increase in high-density lipoprotein (HDL-C) levels, although statistically significant, was only 5% ($p<0.05$). In group II, at the same time of treatment, there was a decrease in the level of total cholesterol by 28%, LDL cholesterol by 34%, TG by 46% and an increase in HDL cholesterol by 19% ($p<0.01$). It is important to point out that in group II there was also a significant decrease in fibrinogen levels after 16 weeks by 13.8±4.2% ($p=0.01$).

According to the presented data, by the end of the study (control point), SBP decreased statistically significantly compared to the initial level by 11.7%, DBP decreased by 13.1%, i.e. after 16 weeks of treatment, on average, the target blood pressure levels were achieved in the group (SBP – 120.7±4.8 mmHg, DBP – 84.1±2.9 mmHg). It should be noted that in the treatment of patients with NS with MS and hypertension, in 90% of cases it led to a decrease in blood pressure. In II gr. During the 16-week follow-up, no cases of changes in pathological increases in blood glucose levels were identified. In the subgroup of patients with an initial fasting glucose level of >5.5 mmol/l, by the end of the control study there was a significant decrease in the indicator by 16.4% (on average for the subgroup from 6.7 ± 0.18 to 5.6 ± 0.17 mmol /l; $p<0.01$). In the group of patients with NS with MS treated with statin monotherapy, 40 endpoints (18%) were registered versus 10 (3.2%) in the group of combination with fibrate and olmesartan ($p = 0.01$). Multivariate analysis identified the fibrate/statin combination as an independent predictor of a reduced risk of adverse events.

Conclusion:

A comprehensive assessment, including stratification of the main components of MS, allows you to make an individual forecast for the development of end points and build therapeutic measures. The use of these combinations of drugs can be recommended for treatment of MS, which have a cardiometabolic protective effect.

Results	Group I	Group II
Total Cholesterol Reduction (%)	20% ($p<0.05$)	28% ($p<0.01$)
LDL Cholesterol Reduction (%)	20% ($p<0.05$)	34% ($p<0.01$)
Triglyceride (TG) Reduction (%)	10% ($p<0.05$)	46% ($p<0.01$)
HDL Cholesterol Increase (%)	5% ($p<0.05$)	19% ($p<0.01$)
Blood Pressure Reduction (%)	SBP - 11.7%, DBP - 13.1%	-
Cases of Pathological Blood Glucose	90% experienced a	No changes identified
Adverse Events in NS with MS (%)	18% (monotherapy)	3.2% (combination) ($p=0.01$)

Source of funding:
none