EVALUATION OF LIPID-LOWING THERAPY IN PATIENTS WITH ISCHEMIC HEART DISEASE

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Annotation.

Diagnosis of myocardial infarction (MI) in young people is a problem of doctors and patients due to low alertness, low frequency of myocardial infarction in this age group, as well as often atypical clinical presentation, small number of patients. obstructive narrowing of coronary arteries. According to local researchers, the incidence of acute MI in women aged 30-40 in Uzbekistan in 2022 was 0.15%. According to the world literature, the frequency of detection of typical chest pain syndrome is more than half of the cases in young patients with ST-segment elevation MI. Our clinical observations revealed the difficulties of diagnosing MI in young women, as well as the influence of gender-related and independent risk factors for its development. The presented observations show that MI in young women can be severe and lead to the development of severe complications such as cardiac aneurysm and chronic heart failure.

Keywords: acute coronary syndrome , atorvastatin , pitavastatin , lipid metabolism , carbohydrate metabolism .

Introduction

Previous observations have shown that the incidence of hyporesponse to monotherapy statins can range from 15.2 to 26.8% [1, 2]. According to the Russian Clinical Guidelines for the Management of Patients with Very High Cardiovascular Risk, lipid-lowering therapy can be started not only with high doses of statins , but also with the prescription of combined lipid-lowering therapy,

including ezetimibe . This tactic allows for an effective reduction in low-density lipoprotein cholesterol (LDL-C) levels [1] . It is known that patients with multiple cardiometabolic risk factors may have an increased risk of developing diabetes mellitus (DM), especially when taking high doses of statins . Thus, in the group of patients who have suffered acute coronary syndrome (ACS), at the third stage of cardiac rehabilitation, a high prevalence of traditional and some additional risk factors for type 2 diabetes mellitus (DM2) is recorded , and during 1 year of observation after the start of lipid-lowering therapy, a high prevalence of DM2 is noted, including due to new cases among patients with previous normoglycemia [3].

Hyperglycemia as an adverse event (AE) of statin therapy is not a class-specific effect. In general, statins increase the risk of new cases of diabetes by 10-12%, and the risk is slightly higher with high-intensity statin therapy than with low- or moderate-intensity therapy [4]. According to the results of a recently published retrospective multicenter cohort study, pitavastatin reduces the risk of new cases of diabetes compared with atorvastatin or rosuvastatin [5]. Based on the results of a large number of randomized clinical trials (RCTs) and taking into account the accumulated experience of successful post-marketing use , pitavastatin is a highly effective statin along with atorvastatin and rosuvastatin . According to studies, the use of pitavastatin at a dose of 4 mg reduces LDL-C levels by an average of 47-50%, which is comparable to the effect of atorvastatin at a dose of 40 mg or rosuvastatin at a dose of 20 mg [6]. The addition of ezetimibe significantly enhances the lipid-lowering effect of pitavastatin . In patients receiving combination therapy, the reduction in LDL-C levels to target values reached 94%, and the incidence of side effects remained low [7].

The aim of the study was to investigate the efficacy and safety of combination lipid-lowering therapy based on a statin and ezetimibe in patients who had suffered an ACS and were undergoing follow-up in a short-term study.

Material and methods

A prospective study was conducted cohort study involving patients, 25 patients were selected according to the criteria below .

Inclusion criteria for the study: history of ACS no more than 10 days ago, no statin intake before the cardiovascular event, no contraindications to statin administration , signed informed consent. Exclusion criteria: intake of statins in any therapeutic doses before the cardiovascular event, history of diabetes, intake of metformin for drug prevention of diabetes, adherence to a reduced diet excluding easily digestible carbohydrates. Using the sequential inclusion method, patients were divided into 2 groups of 12 people: in group 1, lipid-lowering therapy was carried out with a combination of atorvastatin 80 mg / day + ezetimibe 10 mg / day ; in group 2 - pitavastatin 4 mg / day + ezetimibe 10 mg / day . During 3 months of observation, the dynamics of the clinical status of patients, parameters of carbohydrate and lipid metabolism were assessed. Statistical analysis was performed using the Statistica 12 software packages. For distributions other than normal , data were recorded as median (Me), lower quartile (Q1), and upper quartile (Q3). When comparing two independent samples by a quantitative feature, the Mann-Whitney test and the $\chi 2$ test were used; for dependent samples, the McNemar test and the Wilcoxon test were used . In all cases, the critical level of the p value was taken to be less than 0.05.

Research results

In accordance with the inclusion/exclusion criteria, 25 patients were included in the study (men - 14 (56%), women - 11 (44%); average age at inclusion in the study - 65.5 ± 7.5 years). More than 50% of patients had suffered myocardial infarction, in 24 (96%) cases, coronary artery revascularization was performed (1 patient with multivessel disease was indicated for coronary artery bypass grafting, which he refused.

All patients received antiplatelet therapy, in 12 cases (48%) anticoagulant therapy was added due to a history of atrial fibrillation. More than half (23 (92%)) of patients were prescribed β- blockers . The majority (18 (72%)) of patients took

RAAS inhibitors, most of which were ACE inhibitors . SGLT2 inhibitors were prescribed to 4 (8%) patients. Less than 20% of patients required diuretics.

Conclusion

The results of the present clinical study showed comparable clinical lipid-lowering efficacy of combination therapy based on high-intensity therapy with atorvastatin (80 mg/ day) and based on therapy with pitavastatin (4 mg/ day) in a group of patients with very high cardiovascular risk. At the same time, a significantly higher concentration of glucose in the blood plasma was noted in the atorvastatin group compared with the pitavastatin group , with no significant differences between the groups in new cases of carbohydrate metabolism disorders.

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