

The Effectiveness of the Original Drug Trimetazidine MV in Patients with Stable Ischemic Heart Disease and Persistent Angina Attacks Against the Background of the Use of Trimetazidine Generics

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ABSTRACT: Goal. To determine the clinical benefits of therapy with the original trimetazidine drug (Preductal® MV) in patients with stable angina pectoris and persistent attacks of anginal pain treated with trimetazidine generics.

Material and methods. The study included 84 patients with stable angina and persistent angina attacks receiving generic trimetazidine against the background of basic therapy of coronary heart disease (CHD). All patients were prescribed Preductal® instead of trimetazidine generics MV 35 mg 2 times a day. The duration of follow-up was 3 months. The effectiveness of treatment was assessed by changes in the frequency of angina attacks, the need for short-acting nitrates and the dynamics of the general condition on a visual analog scale (VAS). Pharmacoeconomical analysis of the effectiveness of therapy was performed.

Results. Replacement of trimetazidine generics with Preductal® MV was accompanied by a decrease in the number of anginal pain attacks by 63%, the number of tablets/doses of nitroglycerin consumed by 65% ($p < 0.01$). During therapy, the number of VAS scores increased from 45.3 ± 13.8 to 71.6 ± 11.9 ($p < 0.0001$). Treatment with Preductal® MV is the most rational from the standpoint of pharmacoeconomics, since the ratio “the cost of therapy for 1 week. in rubles/number of prevented angina attacks per week.” minimally when using the original drug.

Conclusion. In patients with coronary artery disease with stable angina pectoris and persistent attacks of anginal pain against the background of the use of trimetazidine generics, transfer to Preductal® MV provides a significant reduction in the frequency of angina attacks and the need for short-acting nitrates. Preductal® MV is more cost-effective and provides optimal efficiency at minimal cost.

Keywords: stable angina pectoris, trimetazidine generics, preductal MV.

INTRODUCTION

Coronary heart disease (CHD) is the leading cause of disability and mortality in Russia and around the world. The most common clinical form CHD is stable angina pectoris (StS). According to the results of the ATP-Survey (Angina Treatment Pattern), in > 50% of patients with StS serves as the debut of coronary heart disease. At the same time, the presence of StS increases the risk of fatal complications of coronary heart disease by 2 times. Prevention of cardiovascular catastrophes and improvement of prognosis in patients with StS, it is provided by the use of antiplatelet agents, statins, beta-blockers (beta-AB) and angiotensin-converting enzyme (ACE) inhibitors. An important aspect of the therapy of such patients is the appointment of modern antianginal drugs in order to prevent angina attacks and improve the quality of life (QOL). As a rule, antianginal (anti-ischemic) drugs with a hemodynamic mechanism of action are used in clinical practice, providing a decrease in myocardial oxygen demand and/or an increase in coronary blood flow. Another way to prevent myocardial ischemia is to optimize myocardial metabolism with the help of myocardial cytoprotectors. Despite significant advances in treatment Coronary heart disease in patients with angina leaves much to be desired. In Russia, according to the ATP-Survey, 76% of patients with StS receive combined anti-ischemic therapy. However, the frequency of angina attacks remains quite high — up to 7 per week. On the one hand, this can be explained by the inadequate use of “classical” antianginal drugs (the use of unreasonably low doses of beta-AB, incorrect prescribing schemes of nitrates, etc.). On the other hand, it is possible that low efficiency treatment is partly related to the use of generic drugs with an unproven effect on the course of StS. An illustration of this assumption is a study that demonstrated that the transfer of patients with stable coronary heart disease who received trimetazidine generics in addition to basic therapy to Preductal® MV, provided a 78% reduction in the number of angina attacks per week. and 75% of the amount of nitroglycerin tablets.

PURPOSE OF THE STUDY: The aim of the study was to determine the clinical benefits of therapy with Preductal® MV in patients with StS and persistent angina attacks patients taking generic trimetazidine medications.

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MATERIALS AND METHODS

The inclusion criteria were: – the presence of StS II-IV functional classes (FC) according to the classification of the Canadian Association of Cardiologists; – adequate “basic” therapy of StS in the previous 3 months (taking antiplatelet agents, statins, beta-AB, ACE); – effective treatment of arterial hypertension (AH) — achievement of target values of arterial blood pressure (BP) and chronic heart failure (CHF); – the use of generic trimetazidine 35 mg / day. in the preceding 3 months; – angina attacks persisting against the background of therapy (≥ 5 per week). 84 patients with a stable course of coronary heart disease, whose average age was 64.2 ± 9 years, were included in the study. After inclusion in the study, all patients were transferred from generic trimetazidine preparations to the original Preductal® preparation MV, which they prescribed 35 mg 2 times a day. The effectiveness of therapy was evaluated after 1 and 3 months of observation. Clinical indicators were used as criteria for the effectiveness of the therapy: – reduction of angina attacks per week; – reduction of the number of tablets or doses of aerosol forms of nitroglycerin per week; – improvement of QOL on a visual analog scale (VAS). Pharmacoeconomical analysis of therapy including Preductal® was performed MV and trimetazidine generics. The cost efficiency coefficient Keff was used (cost/efficiency ratio): $Keff = Cost/Eff$, where Cost — the cost of therapy for 1 week. in rub, Eff is the number of prevented angina attacks per week. After 3 months of application of Preductal® MV doctors and patients independently assessed the effectiveness of treatment on a 6-point scale: 6 points — excellent, 5 points — very good, 4 points — good, 3 points — average, 2 points — satisfactory, 1 point — unsatisfactory. Statistical processing of the results was performed using the Statistica application software package 6.0. The data is presented in the form of $M \pm m$. Quantitative features were compared using the Student's criterion with a significance level of $p < 0.01$.

RESULTS and DISCUSSION

It was assumed that all patients included in the study would take generics of trimetazidine MV. During the analysis of the results, it turned out that only 58 (51.8%) patients received such drugs, the rest of the patients took generic trimetazidine 20mg 3 times a day. Regardless of the generic trimetazidine used, the frequency of angina attacks in weeks. it turned out to be quite high. The average frequency of anginal seizures against the background of the use of various generics was 7.4 ± 2.9 , and the number of tablets or aerosol doses of nitroglycerin was 6.8 ± 2.8 .

At the time of inclusion in the study, 76 (67.9%) patients received combined antianginal therapy in accordance with modern concepts for the management of patients with high angina pectoris. At the same time, 12 (10.7%) patients were not prescribed β -AB. Analysis of this subgroup of patients showed that 10 out of 12 patients had no contraindications to prescribing this class of drugs. It is known that in addition to beta-AB, antiplatelet drugs (aspirin), statins and ACE inhibitors (perindopril and ramipril) are among the drugs that improve the prognosis in coronary heart disease. In the present study, aspirin was 79 (70.5%) patients were appointed by doctors, ACEI — 71 (63.4%), and statins — only 22 (19.6%) patients. Replacement of trimetazidine generics with Preductal® MV was accompanied by a significant improvement in the quality of life of patients. After 3 months of taking Preductal® MV the average number of angina attacks is unknown. decreased from 7.4 to 2.7 ($p < 0.01$). A logical consequence of a decrease in the frequency of angina There was a statistically significant decrease in the need for nitrates (Table 3). It should be noted that a significant positive dynamics took place after 1 month of treatment. On average, the number of angina attacks and the doses of short-acting nitrates used after 3 months decreased by 63% and 65%, respectively. One of the sensitive methods of quantifying the patient's well-being is YOURS. Through 3 months of observation, the number of points for VAS increased from 45.3 ± 13.8 to 71.6 ± 11.9 ($p < 0.0001$). During the observation period, adverse events (NY) against the background of therapy including Preductal® MV, not registered.

Thus, the transfer of patients with StS from trimetazidine generics to Preductal® MV in addition to basic therapy provides a significant improvement QL with excellent tolerability. These results are very important from a practical point of view. The survival rate of patients with StS is closely correlated with the frequency of angina attacks. In the TIBBS study (Total Ischemic Burden Bisoprolol Study) it was demonstrated that the complete elimination of episodes of myocardial ischemia is accompanied by a significant reduction in the risk of death compared with patients who, despite treatment, angina attacks persist. Statistically significant differences in survival were found even in patients with different frequency of ischemic episodes. Therefore, optimal anti-ischemic therapy can contribute to improving not only the patient's QOL, but also the long-term prognosis. In the ETALON study, most patients initially received combined antianginal therapy, which included β -AB. It can be assumed that the insufficient effectiveness of therapy was associated with the use of suboptimal doses of β -AB and insufficient by reducing the number of heartbeats (HR). Indeed, the analysis of patients receiving “pulse-reducing therapy” showed that the average heart rate was 74.6 ± 0.93 beats /min, and the target heart rate values were achieved only in 24 (21.4%) patients. In this case, several approaches to optimizing anti-ischemic therapy are possible. Firstly, the use of adequate doses of β -AB, and secondly, the wider use of a combination of β -AB with another anti-ischemic and pulse—reducing drug - an If channel inhibitor (ivabradine). At the same time, do not neglect the use of the myocardial cytoprotector Preductal® MV. As the results of this study have shown, the appointment of the original drug instead of generics trimetazidine was accompanied by a significant decrease in the number of angina attacks and the need for short-acting nitrates regardless of the initial heart rate.

Currently, an important task of practical medicine is to determine the pharmacoeconomical effectiveness of the treatment; in the study, the Keff indicator was used for this purpose. As a reference intervention, therapy using angiosil retard was used as the least effective. The cost of therapy per week was calculated taking into account the average cost of the drug in

large pharmacy chains of the cities where the study was conducted. It should be clarified that the calculation of pharmaco-economical efficiency was carried out only for 4 most often trimetazidine generics used in the st. The lowest efficiency coefficient indicated the need for minimal material costs to obtain the maximum therapeutic effect. According to the results of the study, the most rational from the point of view of pharmaco-economics is the use of Preductal® MV, because for a unit of effect — a prevented angina attack, you will have to pay the minimum cost.

According to the study protocol, each doctor and patient who completed the study had to independently evaluate the effectiveness of the therapy. In most cases, doctors and patients noted the high effectiveness of the treatment. Thus, the results of the ETALON study indicate that one of the reasons for the lack of control over the symptoms of StS is the widespread use of generic drugs, in particular trimetazidine generics. Replacement of the genericist with the original drug Preduktal® MV provides a significant improvement QOL of patients with stable coronary artery disease. Using Preduktala® MV is also more advantageous from a pharmaco-economical point of view.

CONCLUSION

In patients with Ss receiving basic therapy, and with anginal pain attacks persisting against the background of the use of generic trimetazidine, the transfer to the original drug Preduktal® MV provides a significant reduction in the frequency of angina attacks and the need for short-acting nitrates. Appointment of Preduktal® MV as part of combined antianginal therapy is accompanied by an improvement in the well-being of patients according to VAS. Application of Preduktal® MV in comparison with generic trimetazidine drugs is more cost-effective and provides optimal efficiency at minimal cost. Treatment with Preduktal® MV is evaluated by doctors and patients with StS as highly effective.

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