

Evaluation of the Therapeutic Efficacy of Levocarnitine and L-Arginine Hydrochloride in Patients with Unstable Angina at a Young Age

Khasanjanova F.O.

Samarkand State Medical University

Tashkenbayeva E.N.

Samarkand State Medical University

Khaydarov A.Kh.

. Samarkand branch of the Republican scientific and practical Center for Emergency medical care,
Samarkand, Uzbekistan

Aripov S.A

. Samarkand branch of the Republican scientific and practical Center for Emergency medical care,
Samarkand, Uzbekistan

Annotation. In this scientific work, we studied the effect of Levargin on some clinical and laboratory parameters and the course of unstable variants of angina pectoris in men at a young age. The study included 72 male patients aged 21 to 44 years who were hospitalized in emergency departments No. 2 in the period from 2022 to 2023 on the basis of the Samarkand branch of the Republican Scientific and Practical Center for Emergency Medical Care (SF RNPCEMP). All patients underwent a general clinical examination (anamnesis collection, anthropometric and physical examination of the patient, measurement of blood pressure, heart rate). Laboratory and instrumental examination included clinical blood tests, biochemical blood analysis, examination of hemostasis parameters, cytokines (interleukin 1-beta (IL-1 β), IL-6, tumor necrosis factor-alpha (TNF- α) upon admission and in dynamics on the 2nd and 7th day of admission, ECG, echocardiography, lung radiography, ultrasound according to indications. Studies have shown the positive clinical efficacy of Levargin and allows it to be recommended in the treatment of patients with unstable angina pectoris as part of basic therapy.

Keywords: unstable angina pectoris, young age, levargin, cytokines, etc.

Relevance

IHD is a myocardial lesion caused by impaired blood flow through the CA, which can be organic and functional. The concept of coronary heart disease includes acute transient and chronic pathological conditions [1, 6]. The first description of classical angina pectoris belongs to Geberden (1772), who first used the term "Angina pectoris" to designate it. However, Hippocrates, and then Bortalette (1576-1636), Garvey (1527-1658), Morgagni (1648-1771) described cases of severe, acute pain in the left half of the chest in elderly people accompanied by restlessness, fear, suffocation, fainting during an attack [2, 7]. Parry (1799) was the first to point out the connection angina pectoris with a change in the structure of the heart and a lesion of the heart. Most of the doctors who described such anginal attacks long before Geberden emphasized their connection with sudden cardiac death. Hippocrates pointed out that „... pain in the heart area, which appears with a certain frequency in humans, is a premonition of sudden death...”

[3, 8]. The term "acute coronary syndrome" (ACS) is used to refer to an exacerbation of coronary heart disease. This term combines such clinical conditions as acute myocardial infarction (AMI) with ST segment elevation (STEMI), AMI with ST segment depression (STEMI) and unstable angina pectoris (NS) [4, 9]. The average rates of ACS development per year are about 520,000 cases, of which 36.4% are AMI, and 63.6% - in the National Assembly [5, 10].

Unfortunately, people under the age of 45 are practically not represented in research, despite the fact that their percentage in the population is growing. Currently, there are only isolated studies in our country that affect the prevalence of cardiovascular diseases (CVD) among the young population, and the issue of prognosis has been poorly studied, although it seems very interesting [4, 8].

Recently, the features of the development and course of coronary heart disease, especially its acute forms, have been actively studied in different groups of patients, depending on gender, age, comorbid and other signs. The results obtained give us the opportunity to revise traditional views. For example, for a long time it was believed that coronary heart disease is observed very often among the population of middle-aged and elderly people, but currently its development in people younger than 45 years has also become quite common [3,9].

In recent years, great strides have been made in the field of prevention and treatment of coronary heart disease, but despite this, this pathology still dominates the structure of morbidity. Thus, the course of coronary heart disease in young people has several features that dictate the need to develop an integrated methodological approach to the organization of medical care.

The aim of the study was to study the effect of Levargin on some clinical and laboratory parameters and the course of unstable angina pectoris in men at a young age.

Materials and methods: the study included 72 male patients aged 21 to 44 years hospitalized in emergency departments No. 2 in the period from 2022 to 2023 on the basis of the Samarkand branch of the Republican Scientific and Practical Center for Emergency Medical Care (SF RNPCEMP). The patients were divided into 2 groups. Patients of group I (38) received standard therapy, and group II (34) received standard therapy + Levargin drug (Temur Med Farm, Tashkent) at a dose of 100 ml intravenously, for 10 days. All patients underwent a general clinical examination (anamnesis collection, anthropometric and physical examination of the patient, measurement of blood pressure, heart rate). Lipids, enzyme activity, bilirubin, creatinine, glucose, cytokines (interleukin 1-beta (IL-1 β), IL-6, tumor necrosis factor alpha (TNF- α) were studied in all patients' blood. Electrocardiography (ECG) and bicycle ergometry (VEM) were performed.

The results of the study. In the dynamics of observation, it was revealed that in patients who took only standard treatment, the maximum decrease in the number of anginal pain attacks and the number of nitroglycerin tablets taken was noted at the 2nd week of treatment and the effect somewhat weakened at the 3rd week. In patients taking standard therapy + Levargin, the number of seizures and tablets taken continued to decrease progressively starting from week 1, reaching a maximum at the end of the study. In the same patients, the decrease in the number of angina attacks per week was statistically significantly greater than in those taking only standard therapy at the 3rd week of follow-up. At the same time, under the influence of the drug Levargin, a more pronounced increase in the duration of physical activity during VEM was achieved by 2.5 minutes compared with patients in the comparison group. By the end of the follow-up, one third of patients taking Levargin had consumed nitroglycerin tablets 2 times less than patients receiving only standard treatment. Prior to treatment, there was a tendency to increase the frequency of detection and increase the absolute values of IL-1 β , IL-6, TNF- α in the blood of patients of both groups. Under the influence of Levargin, a noticeable decrease in the content of IL-1 β , IL-6, TNF- α was revealed, whereas only standard therapy reduced the concentrations of these indicators slightly. In the group with Levargin, a decrease in the total number of ischemic episodes per day (by 69%) and the total duration of ischemic episodes (by 21%) was revealed. Positive dynamics was noted in the comparison

group, but it was inferior to that with Levargin. Metabolic protection of ischemic myocardium with Levargin significantly reduced the severity of adverse effects of ischemia and reperfusion, which indicates additional clinical advantages of this therapeutic approach in patients with unstable angina.

Conclusions: thus, studies have shown the positive clinical efficacy of Levargin and allows us to recommend it in the treatment of patients with unstable angina pectoris as part of basic therapy.

References:

1. Андреевко, Е. Ю., et al. "Ишемическая болезнь сердца у лиц молодого возраста: распространенность и сердечно-сосудистые факторы риска." *Кардиология* 58.10 (2018): 53-58.
2. Андреевко, Е. Ю., et al. "Ишемическая болезнь сердца у лиц молодого возраста: особенности этиологии, клинических проявлений и прогноза." *Кардиология* 58.11 (2018): 24-34.
3. Бокерия, Лео Антонович, et al. "Отдаленные результаты хирургической реваскуляризации миокарда у больных ишемической болезнью сердца молодого возраста." *Анналы хирургии* 1 (2012): 24-28.
4. Бокерия, Лео Антонович, et al. "Результаты хирургического лечения ишемической болезни сердца у больных молодого (до 45 лет) возраста." *Грудная и сердечно-сосудистая хирургия* 1 (2014): 27-32.
5. Березовец, Игорь Геннадьевич. *Особенности хирургического лечения больных ишемической болезнью сердца молодого возраста*. Diss. Московская медицинская академия им. ИМ Сеченова, 2005.
6. Хасанжанова, Фарида Одыловна, and X. A. Авазова. "Особенности Клинического Течения Инфаркта Миокарда С Хронической Сердечной Недостаточностью У Больных В Молодом Возрасте." *Central Asian Journal of Medical and Natural Science* 4.2 (2023): 637-640.
7. Хасанжанова, Фарида Одыловна, and Элеонора Негматовна Ташкенбаева. "Роль изменения маркеров некроза кардиомиоцитов у больных инфарктом миокарда в зависимости от возраста." *Актуальные научные исследования в современном мире* 10-6 (2018): 42-45.
8. Хасанжанова, Фарида Одыловна, and Мумин Шамсиевич Рофеев. "Часто встречаемые факторы риска при инфаркте миокарда у мужчин молодого возраста при разных исходах заболевания." *Актуальные научные исследования в современном мире* 10-7 (2019): 87-90.
9. Хасанжанова, Фарида Одыловна, Улугбек Азимжон Угли Мардонов, and Тохиржон Шомирза Угли Юсупов. "Факторы, неблагоприятно влияющие на исход лечения больных с острым коронарным синдромом в молодом и пожилом возрасте." *Проблемы современной науки и образования* 11-1 (144) (2019): 94-97.
10. Хасанжанова, Фарида Одыловна, and Элеонора Негматовна Ташкенбаева. "Неблагоприятные факторы риска влияющие на исход лечения больных острым коронарным синдромом с подъемом сегмента ST." *Авиценна* 34 (2019): 4-6.