UDC: 616.12-008.1-072.7

CARDIOPROTECTIVE EFFICIENCY OF EMCOR IN YOUNG PATIENTS WITH ARTERIAL HYPERTENSION

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Abstract

The aim of the study was to evaluate the efficacy and safety of emcor in the treatment of arterial hypertension in young patients. 62 patients with arterial hypertension were examined, emcor was taken for 4-5 weeks at a daily dose of 5 - 10 mg, the average daily, average daytime and average nighttime arterial pressure (BP), pressure load and time index were significantly reduced. Emcor therapy contributes to the normalization of variability and daily rhythm of blood pressure. The obtained data confirm the efficacy and safety of the drug in this category of patients.

Keywords: emcor, arterial hypertension, research, normalization.

ARTERIAL GIPERTENZIYASI BO'LGAN YOSH BEMORLARDA EMKORNING KARDIOPROTEKTIV SAMARASI

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Annotatsiya

Tadqiqotning maqsadi yosh bemorlarda arterial gipertenziyani davolashda Emkorning samaradorligi va xavfsizligini baholash. Arterial gipertenziya bilan og'rigan 62 bemor tekshirildi, Emkorni 4-5 hafta davomida 5 - 10 mg dozada qabul qilish o'rtacha kunlik, o'rtacha kunlik va o'rtacha tungi qon bosimini (BP), bosim yukini va vaqt indeksini sezilarli darajada pasaytirdi; Emkor terapiyasi qon bosimining o'zgaruvchanligi va yurak ritmini normallashtirishga yordam beradi. Olingan ma'lumotlar ushbu toifadagi bemorlarda preparatning samaradorligi va xavfsizligini tasdiqlaydi.

Kalit so'zlar: emkor, arterial gipertenziya, tadqiqot, normalizatsiya.

КАРДИОПРОТЕКТОРНАЯ ЭФФЕКТИВНОСТЬ ЭМКОРА У БОЛЬНЫХ АРТЕРИАЛЬНОЙ ГИПЕРТЕНЗИЕЙ МОЛОДОГО ВОЗРАСТА

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Аннотация

Целью исследования явилась оценка эффективности и безопасности применения эмкора в лечении артериальной гипертензии у пациентов молодая возраста. Обследовано 62 пациентов с артериальной гипертензией, принимали эмкора в течение 4-5 недель в суточной дозе 5 – 10 мг существенно снижается среднесуточное, среднедневное и средненочное артериальное давление (АД), нагрузка давлением и индекс времени. Терапия эмкора способствует нормализации вариабельности и суточного ритма АД. Полученные данные подтверждают эффективность и безопасность применения препарата у этой категории больных.

Ключевые слова: эмкор, артериальная гипертензия, исследования, нормализаци.

Introduction. Hypertension is the most common pathology of the cardiovascular system. The urgency of the problem is determined by the high frequency of disease of the population, the impact on work and life expectancy. According to G. Mancia, approximately 40% of the elderly European population has a blood pressure (BP) level of more than 140/90 mm Hg. 50% or more of people over the age of 65 have hypertension. In addition, over the past 5 ears, the incidence of older patients has increased significantly [1, 2].

Despite the efforts of scientists, doctors and health authorities, arterial hypertension (AG) remains one of the most important medical and social problems in Uzbekistan, which in many ways increases the mortality rate from cardiovascular diseases. increases. The reason is the prevalence of this pathology (39.5% of the elderly population has high blood pressure, but only 77.9% of them know about their disease) and the occurrence of hypertension, cardiovascular diseases, myocardial infarction and stroke. is a risk factor in the arrival and mainly determines the high rate of death in the country [3, 4, 5].

In addition, the presence of hypertension significantly affects the life expe4ctancy and quality of life of patients, because morbidity and mortality increase in parallel with the increase in diastolic and especially systolic blood pressure. Hypertension is a risk factor for stroke, ischemic heart disease (IHD), as well as disability and early death, and the development of cardiovascular diseases. Hypertension causes damage to target organs: heart, brain, kidneys, peripheral vessels. According to the Framingham study, it was found that the higher the blood

pressure level, the higher the risk of developing cardiovascular diseases in men and women of all ages. Hypertension accounts for up to 90% of all hypertensive cases in the elderly, and 60% in young patients (under 40). Complications of hypertension also increase with age. Thus, the risk of developing complications in 10 ears in patients with mild hypertension aged 25-34 ears is less than 1%, and in patients aged 65-74 ears it is more than 30% [6].

The complex interrelationship of age-related and pathological aspects of the development of hypertension in old age creates significant difficulties in diagnosing and solving treatment problems that arise in assessing its nature - it reflects how age-dependent it is [7].

Modern generally accepted concepts of the pathogenesis of hypertension do not sufficiently take into account the "contribution" of disorders in the rheological properties of blood and the functional state of platelets in the formation of hypertension syndrome and disturbances in central and peripheral hemodynamics. These disorders are related to the severity of the disease and are considered as additional factors contributing to its development [8].

The aim of this study was to evaluate the antihypertensive and cardioprotective efficacy and safety of Emcor in young patients with hypertension.

Materials and methods of the study. A total of 62 patients with hypertension were examined: 34 (60%) men and 28 (40%) women aged 25 to 45 ears. All patients were conditionally divided into two clinical groups equal in number of patients. The first clinical group included 62 patients with hypertension aged 25 to 45 ears (mean age 30.8 ± 1.2 ears), the group consisted of

The other clinical diagnosis of hypertension was established according to the WHO criteria [9] and the latest Recommendations of the European Societies of Hypertension and Cardiology [5]. The examination complex included: measurement of blood pressure using the standard Korotkov method, ambulatory 24-hour blood pressure monitoring, electrocardiography using the Edan SE-601 device, echocardioscopy using the MNDray device. All patients underwent fundus examination and general clinical examinations.

Exclusion criteria from the study were systolic blood pressure (SBP) > 180 mm Hg and/or diastolic blood pressure (DBP) > 110 mm Hg before the start of the study, heart failure stage I-II, functional class II-III according to NYHA, liver and kidney failure of any etiology, non-coronary heart diseases, cancer, blood diseases, diffuse connective tissue diseases, acute and chronic inflammatory diseases of any etiology, decompensated diabetes mellitus, tuberculosis, neurological, endocrinological and mental diseases. Patients received a daily dose of 5 mg once. If the therapy was insufficiently effective (SBP > 140 mm Hg, DBP > 90 mm Hg), after 10 days the dose of the drug was increased to 10 mg per day. The drug was administered as

monotherapy in an open manner, without placebo. The total duration of the study was 4 weeks. All studies were conducted twice: before treatment and after 4 weeks.

Statistical processing was performed using the Microsoft Excel and Statistical software packages using Student's t-test. Differences in indicators were considered significant at $p < 0.05$.

Study results and discussion. Four weeks after the start of treatment, patients in both groups noted a significant improvement in their well-being: a decrease in headaches and dizziness, the cessation of hypertensive crises, and an increase in tolerance to physical activity. Four weeks after the start of treatment, the target level of SBP (< 140 mm Hg) and DBP (< 90 mm Hg) was reached. The daily BP profile indicators significantly improved (Table 1). Improvement of daily BP monitoring parameters was expressed in a decrease in the level of SADS by 17.8% and 17.6% ($p < 0.05$), as well as in a decrease in the level of DADS by 11.8% and 11.5% ($p < 0.05$) in patients of the 1st and 2nd clinical groups, respectively.

Table 1.

Dynamics of daily BP profile parameters in middle-aged and elderly patients with hypertension treated with Emcor

Indicator Value of the indicator (M ± m) Men (n = 25) Women (n = 25)
Before treatment After 4 weeks Before treatment After 4 weeks.

	men women		men women	
	Before	after	Before	after
SBP, mmHg	160,52±3,12	125,57±2,89*	161,12±2,33	120,45±3,07*
DBPs, mmHg	90,88±2,87	80,0±3,0*	96,56±1,23	80,75±3,12*
STD SADd, mmHg	19,23±1,63	14,23±1,76*	19,87±2,56	15,02±1,43*
STD DBP, mmHg	14,34±1,65	11,78±1,67*	16,34±1,33	12,45±1,78*
IV SADD, %	67,56±6,45	36,66±5,11*	69,77±6,57	38,67±5,45*
IV DADD %	56,45±2,77	35,12±2,66*	55,78±2,78	36,23±2,44*
SI SAD, %	9,88±1,64	16,88±2,99*	9,45±1,56	16,33±2,44*
СИ ДАД, %	9,12±0,27	15,77±2,56*	15,12±2,56	15,08±2,23*
Heart rate in 1 min sec,	81,38±3,78	65,94±3,56*	80,78±3,12	66,77±3,56*
Heart rate in 1 min	85,32±4,76	70,44±4,78*	85,87±4,66	69,34±4,11*

Note: * - differences in the parameters are significant compared to those before treatment in both clinical groups ($p < 0.05$), SADS - average daily SBP, SADP daytime SBP, SADN - night-time SBP, DADS - average daily DBP, DADB - daytime DBP, DADN - night-time DBP, STD - BP variability, TI - time index of BP, CI - daily index of BP, HR - heart rate.

Along with this, there was a decrease in the variability of SADP by 27.8% and 28.5% ($p < 0.05$), as well as in the variability of SADN by 32.8% and 33.5% ($p < 0.05$). The variability of DBPd also decreased by 24.1% and 23.2%, and the variability of DBPn by 27.5% and 27.1% ($p < 0.05$). The positive effect on the variability of blood pressure is of particular importance and value in light of

numerous prospective epidemiological studies of recent ears, which have convincingly proven that increased variability of blood pressure, especially at night and early in the morning, is a negative prognostic sign - a predictor of the development of acute cardiovascular catastrophes (myocardial infarction, stroke, transient ischemic attacks, acute hypertensive encephalopathy, eclampsia, cardiac arrhythmia, etc.) [6, 7]. The effect of bisoprolol monotherapy on the time index (TI) - an indicator of "myocardial pressure load" was studied. A decrease in the SI of SBPd by 42.5% and 42.1% ($p < 0.05$), as well as the SI of SBPn by 42.9% and 42.5% ($p < 0.05$) was noted. The SI of DBPd decreased by 38.5% and 37.9%, and the SI of DBPn - by 37.6% and 37.1% ($p < 0.05$) in patients

A positive result of antihypertensive monotherapy with bisoprolol is the identified ability of the drug to improve the daily BP profile: the SI of SBP increased by 37.1% and 37.9% ($p < 0.05$), and the SI of DBP - by 36.5% and 36% ($p < 0.05$) in patients of the 1st and 2nd clinical groups, respectively. The obtained results are important from the prognostic point of view, since many studies have found that the absence of a normal decrease in BP at night (the 24-hour "non-dipper" profile) and / or nocturnal hypertension (the 24-hour "night-peaker" profile) are accompanied by more frequent damage to target organs and a 2.56-fold higher risk of cardiovascular death [6, 7].

By the end of 4 weeks, a significant increase in Vr by 14.3% and 14.6% ($p < 0.05$) was noted, as well as a significant decrease in TPR by 13% and 12.8% ($p< 0.05$) in male and female patients of the clinical groups, respectively. A significant. When analyzing the tolerability and safety of Emcor, good tolerability and high safety of the drug were noted. No patient experienced significant side effects that contributed to a decrease in the daily dose or discontinuation of the drug. Emcor turned out to be a metabolically neutral drug in relation to lipid, carbohydrate and purine metabolism.

Conclusions. In young patients with hypertension, antihypertensive monotherapy with Emcor in a daily dose of 5-10 mg leads to a significant improvement in the clinical condition and normalization of the daily blood pressure profile with the achievement of the target blood pressure level in 64% and 61% of patients, respectively.

In middle-aged and elderly patients with hypertension, antihypertensive monotherapy with Emcor has a cardioprotective effect, promotes regression of LV hypertrophy with improvement of its diastolic function. Antihypertensive monotherapy with Emcor is well tolerated by patients, is safe, metabolic neutral and is not accompanied by significant side effects. Emcor can be used as a basic first-line antihypertensive drug in middle-aged and elderly patients with hypertension. Further

studies are planned to be devoted to studying other issues of the use of Emcor in middle-aged and elderly patients with arterial hypertension.

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