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ТИББИЁТДА ЯНГИ КУН НОВЫЙ ДЕНЬ В МЕДИЦИНЕ NEW DAY IN MEDICINE

*Илмий-рефератив, маънавий-маърифий журнал
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**THE INFLUENCE OF PERCUTANEOUS CORONARY INTERVENTION WITH
STENTING OF CORONARY ARTERIES ON ECHOCARDIOGRAPHIC AND
LABORATORY PARAMETERS OF ELDERLY PATIENTS**

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✓ **Resume**

Chronic heart failure (CHF) is defined as a clinical syndrome that is characterized by typical symptoms (shortness of breath, swelling of the ankles, fatigue) and may be accompanied by various signs (increased jugular venous pressure, crackles in the lungs and peripheral edema) caused by abnormalities in the structure and/or cardiac function, resulting in decreased cardiac output and/or increased intracardiac pressure at rest or during exercise (Journal of Cardiac Failure Vol. 1 No. 01.2021).

Key words: chronic heart failure, percutaneous coronary intervention, coronary artery stenting, echocardiography, natriuretic peptide

**ВЛИЯНИЕ ЧРЕСКОЖНОГО КОРОНАРНОГО ВМЕШАТЕЛЬСТВА СО
СТЕНТИРОВАНИЕМ КОРОНАРНЫХ АРТЕРИЙ НА ЭХОКАРДИОГРАФИЧЕСКИЕ И
ЛАБОРАТОРНЫЕ ПОКАЗАТЕЛИ ПАЦИЕНТОВ ПОЖИЛОГО ВОЗРАСТА**

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✓ **Резюме**

Хроническая сердечная недостаточность (ХСН) определяется как клинический синдром, который характеризуется типичными симптомами (одышка, отеки лодыжек, утомляемость) и может сопровождаться различными признаками (повышение давления в яремных венах, хрипы в легких и периферические отеки).), вызванные нарушениями структуры и/или функции сердца, приводящие к снижению сердечного выброса и/или повышению внутрисердечного давления в покое или при нагрузке (Журнал сердечной недостаточности Том 1 № 01.2021).

Ключевые слова: хроническая сердечная недостаточность, чрескожное коронарное вмешательство, стентирование коронарных артерий, эхокардиография, натрийуретический пептид.

**KEKSA BEMORLARDA KORONAR ARTERIYALARNI STENTLASH BILAN TERI
ORQALI ARALASHUVNING EXOKARDIYOGRAFIK VA LABORATORIYA
PARAMETRLARIGA TA'SIRI**

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✓ Resume

Surunkali yurak yetishmovchiligi (YuYe) tipik alomatlar (nafas qisilishi, shishgan to'piqlar, charchoq) bilan tavsiflangan klinik sindrom sifatida tavsiflanadi va turli belgilar (bo'yin tomirlari bosimining oshishi, o'pkada tirqish va periferik shish) bilan birga bo'lishi mumkin.), yurakning tuzilishi va / yoki faoliyatidagi buzilishlar natijasida kelib chiqqan, yurak chiqishining pasayishiga va / yoki dam olishda yoki jismoniy mashqlar paytida intrakardiyak bosimning oshishiga olib keladi (Journal of Heart Failure Vol. 1 No. 01.2021).

Kalit so'zlar: surunkali yurak etishmovchiligi, teri osti koronar aralashuvi, koronar arteriya stentlanishi, ekokardiyografiya, natriuretik peptid.

Relevance

Chronic heart failure (CHF) is a burden on the economies of developed countries, including Uzbekistan, where approximately 6-7% of the adult population suffer from this syndrome. The main causes of this syndrome are ischemic disease and arterial hypertension.

The search for means to improve the prognosis of CHF of various etiopathogenetic nature, in particular using surgical intervention, remains relevant. The impact of percutaneous coronary intervention (PCI) with coronary artery stenting on the mid- and long-term prognosis of elderly patients with CHF continues to be studied.

The novelty of our study lies in the fact that for the first time we will obtain data on the dynamics of the manifestations of CHF in elderly patients who have undergone stenting of the coronary arteries and the identification of early manifestations of CHF.

Purpose of the study: Assessment of the annual dynamics of laboratory and echocardiographic characteristics of elderly patients after stenting of the coronary arteries and detection of early CHF.

Materials and methods

This study included 80 patients; All study patients were admitted to the department of X-ray surgical methods of diagnosis and treatment at the Republican Specialized Scientific and Practical Medical Center of Cardiology, Samarkand branch, from 2021 to 2024 for planned PCI with stenting of the coronary arteries. Inclusion criteria: old age 60-75, informed consent to participate, presence of stable coronary heart disease, indication for PCI (hemodynamic significant stenosis of at least one coronary artery). Each patient was examined before surgery.

Signs of CHF were assessed using a scale for assessing the clinical condition of the patient (SSRC as amended by V.Yu. Mareev [1]. SMWT was carried out according to standard methods in a hospital corridor with determination of the distance traveled in meters. Echocardiography was carried out using an ultrasound machine. The following parameters were recorded: volumetric indicators of the heart - end-diastolic and end-systolic volume of the LV, volume of the left atrium, LVEF, end-diastolic and end-systolic dimensions of the LV, linear dimensions of the atria, LVMM. Repeated examination was carried out after 6 and 12 months.

The initial structure of the sample of patients by gender was 12 women (15.8%) and 68 men (84.2%). Average age 76.17 ± 3.29 years.

Statistical processing was carried out primarily using nonparametric statistical methods. Depending on the type of distribution of variables, arithmetic means were calculated to describe central tendencies, indicating the standard deviation ($M \pm SD$) of the median, indicating the upper and lower quartiles in the ME format (Q25; Q75). Differences were considered significant at a static significance level of $p < 0.05$. the analysis was carried out using the Statistica 10 program.

Results: Changes in indicators on the SHOKS scale and the distance traveled SMWT are reflected in Table 1. As can be seen from the latter, patients experienced a statistically significant increase in the SMWT distance within 6 and 12 months after PCI. The functional class of angina pectoris in the group decreased significantly. The increase in the SMWT distance over 6 months of observation averaged 65 (43; 85) and over 12 months 85 (56; 110) m ($p < 0.001$). The analysis did not show significant differences in the increase in distances, but there was a difference in its average values.

Average value NT-proBNP in the group decreased from 470 (395; 553) pg/ml to 364 (293; 443) pg/ml ($p < 0.001$) one year after PCI.

Changes in hemodynamic parameters presented included in the tab. Echocardiographic data revealed positive dynamics: over 1 year, the average increase in LVEF was $8 \pm 6\%$, the average values of LV MM and LV MM index decreased ($p < 0.001$).

Table 1

Dynamics of clinical characteristics of elderly patients after percutaneous coronary intervention

Clinical characteristics	Before PCI	After PCI		Statistical significance level p
		After 6 months	After 12 months	
SSRC scores	3(2;4) (n=80)	1(0;2) (n=80)	1(0;2) (n=80)	
SMWT(distance, m.)	325(250;380) (n=80)	384(321;420) (n=80)	402(251;445) (n=80)	<0.001*
NT-proBNP	470(395;553)	390(293; 443)	364(293; 443)	0.001*

Note: * - statistically significant difference

Table 2

Dynamics of echocardiographic parameters in elderly patients after percutaneous coronary intervention

Options	Before PCI	After PCI		Level of statistical significance p*
		After 6 months	After 12 months	
CDR, cm	6.2±0.6	6.1±0.6	6.2±0.6	
DAC, cm	4.7±0.5	4.5±0.5	4.4±0.5	
IKDO, ml/m2	100±24.7	93.8±24.7	89±24.7	<0.001*
UO, ml	89.4±19.7	97.3±18.2	98.2±20.3	
LVEF%	47(45;48)	51.3±4.7	53.1±5.7	
IVS, cm	1.3(1.2; 1.4)	1.2(1.1; 1.3)	1.3(1.0; 1.3)	<0.001*
TZSLZh, cm	1.0(0.9; 1.1)	1.0(0.9; 1.0)	1.0(0.9; 1.0)	0.104
LVMM, m2	298(254;339)	287(244;329)	273(236;329)	<0.001*
LVMM index	151(131;175)	144(131;164)	139(124;162)	
Pulmonary artery, trunk, cm	2.3(2.2; 2.4)	2.4(2.2; 2.4)	2.4(2.2; 2.4)	0.004
SDLA	30(25;30)	26(25;29)	25(24;28)	<0.001*

Note: * - statistically significant difference

Results and discussions

It is possible that a noticeable increase in the SMWT distance during the year of observation, regardless of the initial angina FC, could be due to a decrease in the severity of anginal pain, which before percutaneous coronary intervention limited the daily physical activity of most patients and could be the reason for their general inactivity. Physical activity can significantly improve exercise tolerance and the quality of life of patients with early CHF, in whom almost all organs and tissues, including skeletal muscles, suffer due to general circulatory failure [2,3,8]. As studies conducted by the Association of the European Society of Cardiology show, the pumping function of the heart does not play such an obvious role in well-being and endurance in CHF as the state of skeletal muscle and physical activity tolerance in general [4,9]. Even very frail elderly patients with acute decompensated CHF and high FC (NYHA) demonstrate a response to exercise tolerance [5,7,10]. Since many patients had structural changes in the heart chambers and a confirmed diagnosis of CHF, it seems to us that high NT-proBNP levels of more than 125 pg/ml both before and after percutaneous coronary intervention are quite expected. Note that NT-proBNP is a fairly variable indicator, and CCS in recommendations for the diagnosis and treatment of HF [4,6,11] advises that changes in the level of this analysis by 40% or

more from the initial values be considered significant for making clinical decisions. In our study, the average decrease in NT-proBNP in each patient was -27 (-40; -16)% one year after percutaneous coronary intervention.

Conclusion

Planned PCI with stenting of coronary arteries in elderly patients should be carefully discussed, especially when there is comorbid pathology. It is necessary to conduct studies aimed at long-term observation of patients after PCI, as well as to study the level of NT-proBNP in all patients to confirm or exclude CHF.

LIST OF REFERENCES

1. Arutyunov AG ACE Inhibitors in CHF: Necessity despite the Change of Goals // Russ J Difficult Patient. – 2014 31-5.
2. Cleland JGF et al. The EuroHeart Failure survey program—a survey on the quality of care among patients with heart failure in Europe: Part 1: patient characteristics and diagnosis // European heart journal. – 2003 442-463.
3. Karabulut U. et al. Effect of Sacubitril/Valsartan Combined with Dapagliflozin on Long-Term Cardiac Mortality in Heart Failure with Reduced Ejection Fraction // Angiology. – 2022 350-356.
4. Kennelly P. et al. Diuretic therapy in congestive heart failure // Acta Cardiologica. 2022; 97-104.
5. Kolwelter J. et al. The SGLT2 inhibitor empagliflozin reduces tissue sodium content in patients with chronic heart failure: results from a placebo-controlled randomized trial // Clinical Research in Cardiology. – 2022; 1-11.
6. Tromp J. et al. A systematic review and network meta-analysis of pharmacological treatment of heart failure with reduced ejection fraction // Heart Failure. – 2022. – T. 10. – No. 2. – pp. 73-84.
7. Agababyan, I.R Kobilova, N.A. Colchicine Effect on C-Reactive Protein Levels in Patients with Coronary Heart Disease after Myocardial Revascularization. Kardiologija v Belarus this link is disabled, 2023; 355–361
8. Agababyan IR, Ismoilova Yu. A. Effectiveness of outpatient monitoring of patients with chronic heart failure // Achievements of science and education. – 2022; 99-103. (in Russian)
9. Agababyan, I., Yarasheva, Z., Nasretdinova, M. The Importance of Echocardiography in the Detection of Early Chronic Heart Failure in Elderly Patients Kardiologia v Belarus this link is disabled, 2022; 313–318.
10. Ismoilova Yu.A., Agababyan IR Condition of patients with chronic heart failure on the background of long-term outpatient follow-up // Journal of Biomedicine and Practice. - 2022
11. Khasan Ahmed, Agababyan, Mareev Yu., V. Changes in peripheral hemodynamics and platelet aggregation caused by captopril in patients with chronic congestive heart failure. Terapevticheskii Arkhiv this link is disabled, 1986; 58–61.

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