World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
Volume-39, October 2024
ISSN: 2749-3644

ANALYSIS OF THE MAIN RISK FACTORS IN PATIENTS WITH CHRONIC HEART FAILURE OF ISCHEMIC ETIOLOGY AND THEIR ADHERENCE TO TREATMENT

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Article history:
Received: July 26th 2024
Accepted: August 20th 2024

Abstract:
Chronic heart failure of ischemic etiology is not only a medical but also a social problem due to its significant prevalence, high mortality rate and high costs of treatment of patients. Despite certain advances in the study of pathogenesis, clinic and treatment, this pathology still remains the most common, severe and prognostically unfavorable complication of all diseases of the cardiovascular system. The presence of several risk factors, low adherence to drug and non-drug treatment leads to the progression of CHF, deterioration of quality of life and increased frequency of hospitalizations.

Keywords: Chronic Heart Failure, Squeak Factors, Adherence, Quality of Life

Chronic heart failure (CHF) is a common complication of cardiovascular diseases, characterized by a high incidence of disability and an unfavorable prognosis. Despite achievements in the treatment of cardiovascular diseases, the level of complications and mortality among patients with CHF remains very high [1,3]. To date, CHF is one of the most common causes of morbidity and mortality in most countries of the world, as well as in Uzbekistan. In many economically developed countries, CHF affects approximately 2-3% of the population. Mortality from cardiovascular diseases in Central Asian republics exceeds the average European level by 2.7%, and in the age group under 65 years old, it is 4.6 times higher [3,6].

As a result of a 10-year observation, it was found that the prevalence of CHF in the population increases by an average of 1.2 people per 1,000 population per year, due to a higher susceptibility to CHF in men aged 40 to 59 and women aged 70 to 89 [3,8,9].

Patients' adherence to therapy plays an important role in the treatment of CHF. According to the WHO, low adherence to the treatment of chronic diseases is "a global problem of enormous significance" (WHO, 2003). Non-compliance with medical recommendations regarding medication intake and diet is the most frequent cause of decompensation in patients with CHF, leading to repeated hospitalizations with prolonged stays, and is associated with increased mortality [4,7].

Due to the high frequency of this pathology, poor prognosis (even with optimal treatment, annual mortality is 12%, and three-year mortality is 36%) and low quality of life, the search for predictors of unfavorable disease course and the identification of patients with a high risk of death remains a pressing issue. Identifying and timely elimination of manageable risk factors (RF), as well as increasing adherence to non-pharmacological and pharmacological treatment of patients with CHF, provides an opportunity to improve quality of life, reduce the frequency of hospital admissions, and extend patient life expectancy [1, 8, 9].

THE PURPOSE OF THE STUDY. To study the main risk factors for patients with CHF and their adherence to non-medicinal and medicinal treatment.

MATERIALS AND RESEARCH METHODS. The study included 60 patients with ischemic CHF, whose average age was 65.7±3.2 years, of whom 38 were men and 22 were women. The average duration of the disease was 3 years (1-5 years). Inclusion criteria: CHF of ischemic etiology, I-III stages (according to Vasilenko-Strajesko), III-IV functional classes (FC) (according to NYHA), coronary heart disease (CHD), post-infarction cardiosclerosis, combined coronary heart disease with hypertension and diabetes mellitus, who received inpatient treatment in the departments of cardiology and cardiac resuscitation of the 3rd clinic of the Tashkent Medical Academy. Exclusion criteria: CHF of another etiology. The diagnosis of CHF was established based on the National Recommendations ARSC (All-Russian Scientific Society of Cardiology) and SHFS (Society of Heart Failure Specialists) for the Diagnosis and Treatment of CHS (third revision). All patients included in the study underwent standard examination according to the above-mentioned recommendations, including the V. Yu. Mareev modified scale for assessing the clinical condition of CHF (CaReQoL CHF – Care-Related Quality of Life survey for Chronic Heart Failure), a 6-minute walk test (6MWT). In the hospital, all patients received the necessary medication (AAFI inhibitors, β-blockers, angiotensin II receptor antagonists, aldosterone receptor antagonists, diuretics, antiplatelet agents, anticoagulants, cardiac glycosides, if necessary,

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nitrates and antiarrhythmic drugs) treatment, depending on the patient's condition, the severity of CHF symptoms, background and concomitant diseases. They also received necessary recommendations for non-medicinal therapy.

Statistical analysis of the obtained data was conducted using the Student's t-test and the linear correlation method.

THE RESEARCH RESULTS AND THEIR DISCUSSION. Sixty patients with CHF were examined and specially prepared questionnaires were filled out. 100% of the patients suffered from CHD and 52 (87%) of them were diagnosed with hypertension. Of these patients, 49 (82%) had a single myocardial infarction, 11 (18%) had a double or multiple myocardial infarction. 7 (12%) patients had FC I of CHF, the rest had FC II-III. It was found that an increase in total cholesterol was observed in 52 (87%) patients, primarily due to LDL cholesterol. Four patients exhibited persistent atrial fibrillation according to ECG data, while 12 patients exhibited atrial and ventricular extrasystoles of class II and III according to Lawn. Echocardiography analysis revealed that most patients in both groups had elevated left atria (4.9 mm), left ventricle (4.4 mm median end-systolic size, 6.1 mm median end-diastolic size), and reduced ejection fraction (44.2%).

Table 1
Clinical characteristics of patients with chronic heart failure

Indicators	Number of patients, n=60
Age, years	65,7±3,2
Males	38 (63,3%)
Females	22 (36,7%)
Weighty heredity for CHD and hypertension	45 (75%)
Smoking	19 (31,7%)
Excessive consumption of salt, more than 5-6 g per day	28 (46,7%)
Alcohol abuse	4 (6,7%)
Total cholesterol >5,2 mmol/L	52 (87%)
Triglycerides >2,0 mmol/L	17 (23,8%)
LDL cholesterol >3,0 mmol/L	49 (81,7%)
HDL cholesterol <1,0 mmol/L	32 (53,3%)
Impaired glucose tolerance	11 (18,3%)
Body mass index, kg/m^2	32,4±2,1
Number of myocardial infarctions (times)	2,4
Manifestation duration of CHF, years	5,1±1,7
Angina pectoris, FC ФК II- III	60 (100%)
Hypertension, %	52 (87%)

Patient histories revealed that the average hospitalization rate per patient was 2.2 times per year, of which 73.2% were hospitalized in emergency hospitals with acute heart failure and exacerbation of CHF, and 26.8% were hospitalized on a planned basis.

The rules of balanced nutrition are general in nature and, as a rule, reduce to the rejection of salty, spicy and fatty dishes. Almost all patients did not follow a diet, which proves that 17 patients were overweight, 34 patients suffered from grade I-II obesity. It should be noted that during the examination of 60 patients, 1 to 7 RF were identified in each of them, with 2-3 RF - 12 patients, 4-5 - 27 and more - 5 - 21 patients. Some of the existing RF (smoking, excess body weight, hypodynamia, etc.) are preventable.

The frequently identified symptoms of CHF in patients are presented in Table 2.

Table 2
Clinical manifestations of chronic heart failure in the examined patients

Indicators	Number of patients, n=60
Increased fatigue (restriction of physical activity) during regular physical activity, which was previously easily tolerated	95,3%

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Depressive disorders	47,8%
Dyspnea after moderate physical exertion	68,4%
Dyspnea at rest	7,8
Tachycardia, also persisting for a long time after exercise	72,4%
Weakness	74,8%,
Anxiety	49%
Hand and foot dryness and coldness	61,5%
The appearance of acrocyanosis – the blue of the toes of the hands and feet, the ears and nose	67,2%
Dry cough during physical exertion and in a horizontal position	16,3%
Heaviness and pain in the right hypochondrium	57,3%
Swelling	82,1%

Almost 90% of patients did not have sufficient information about the primary and secondary prevention of the underlying disease and CHF. Those with higher functional classes of CHF received periodic inpatient treatment (2-3 or more times a year). In outpatient settings, 67% of patients received furosemide, 26.3% - AAFI, 28% - angiotensin II receptor antagonists, 18.4% - verospiron 25-100 mg daily, 17.4% - digoxin. However, these drugs were taken irregularly and inadequately. The general practitioner's control was irregular. After discharge from the hospital, after 1-1.5 months, 47 patients independently reduced the dosage and quantity of the recommended drugs or stopped their use altogether.

During the survey, the reasons for the irregular use of medications were revealed: 14 (23.3%) patients were unable to purchase the necessary medications due to their low financial capabilities, 27 (45%) patients believed that regular medication use was harmful to the body, 9 (5.4%) patients forgot to take medications, 7 (11.7%) thought that it was enough to receive inpatient treatment 2-3 times a year. Only 9 out of 60 patients followed all the doctor's recommendations.

Taking into account the above, it can be said that adherence to the doctor's recommendations regarding diet, lifestyle in combination with adequate medication therapy improves the quality of life, the clinical condition of patients, reduces the frequency of CHF progression and the number of hospitalizations.

FINDINGS

1. Most patients with ischemic CHF do not have sufficient information about the primary and secondary prevention of the underlying disease and CHF.
2. The presence of several risk factors and low adherence to medication and non-medication treatment leads to the progression of CHF, a deterioration in quality of life, and an increase in hospitalization rates.
3. Treatment outcomes and disease outcomes in patients with CHF depend on patients' adherence to treatment. Therefore, to improve the quality of therapy, it is necessary to identify the causes of poor adherence in each patient and correct them taking into account the underlying disease.
4. By observing and identifying the features of the disorder, it is possible to increase the adherence of patients with CHF to medication and non-medication treatment.

REFERENCES

1. Arutyunov G. P., Kolesnikova E. A., Rilova A. N. "Modern approaches to the rehabilitation of patients with chronic heart failure" // Cardiosomatology. - 2010. - No. 1. –. P. 20-24. [In Russ]
2. Vinogradova N.G., Polyakov D.S., Fomin I.V., Solovyova E.V. Stability of chronic heart failure from the point of view of a doctor and a patient: we seek contact points. Cardiology. 2019;59 (6S):33-40. [In Russ]
3. Guseinova E.T., Kutishenko N.P., Lukina Yu.V. et al. The problem of chronic heart failure and adherence to medication treatment: assess-

World Bulletin of Public Health (WBPH)
Available Online at: https://www.scholarexpress.net
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ment methods and unresolved issues. Clinician 2020;14 (3-4) -K627. [In Russ]
4. Russian Society of Cardiology (RSC). Chronic heart failure. Clinical recommendations 2020. The Russian Cardiology Journal. 2020;25 (11):4083. doi:10.15829/1560-4071-2020-4083. [In Russ]
5. National recommendations of the SHFS, ARSC and RSMST for the diagnosis and treatment of CKD (fourth revision) // Journal of Heart Failure. - 2013. - T.14, No7 (81), - C. 379-472. [In Russ]
6. Shtegman O. A., Polikarpov L. S., Virva P. V. Distribution of the main risk factors for the development of cardiovascular diseases among the adult population visiting the clinic // Cardiology and Cardiovascular Surgery. 2013; 3:47-50. [In Russ]
7. Benjamin EJ, Muntner P, Alonso A, Bittencourt MS, Callaway CW, Carson AP et al. Heart Disease and Stroke Statistics–2019 Update: A Report from the American Heart Association. Circulation. 2019;139(10):e56–528. DOI: 10.1161/CIR.0000000000000659
8. Boom N. K., Lee D. S., Tu J. V. Comparison of processes of care and clinical outcomes for patients newly hospitalized for heart failure attended by different physician specialties // Am Heart J. 2012; 163: 252–259.
9. DeVore AD, Thomas L, Albert NM, Butler J, Hernandez AF, Patterson JH et al. Change the management of patients with heart failure: Rationale and design of the CHAMP-HF registry. American Heart Journal. 2017; 189:177–83. DOI: 10.1016/j.ahj.2017.04.010.
10. Ling R.Z.Q., Jiao N., Hassan N.B. et al. Adherence to diet and medication and the associated factors among patient with chronic heart failure in a multi-ethnic society. Heart Lung 2020;49(2):144–50.
11. Groenewegen A, Rutten FH, Mosterd A, Hoes AW. Epidemiology of heart failure. European Journal of Heart Failure. 2020;22(8):1342– 56. DOI: 10.1002/ejhf.1858