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CLINICAL AND PROGNOSTIC FEATURES OF PATIENTS WITH UNSTABLE ANGINA AND CHRONIC HEART FAILURE WITH PRESERVED EJECTION FRACTION: RESULTS OF CONSERVATIVE TREATMENT

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Abstract

This study evaluated the clinical and prognostic features of patients with unstable angina and chronic heart failure with preserved left ventricular ejection fraction (HFpEF) under conservative treatment, as well as their association with other factors. The study was conducted at the Samarkand Regional Branch of the Republican Specialized Scientific and Practical Medical Center of Cardiology (SRB RSSPMC). The study included 80 patients aged 50 to 70 years (40 men and 40 women) with coronary artery disease complicated by HFpEF at stages I–IIA, functional class I–III (FC).

HFpEF was most common in women with unstable angina, most of whom had abdominal obesity (AO). The primary complaint among patients was dyspnea during physical exertion. It was found that an increase in the total score on the SHOKS scale correlated with a decline in quality of life (QoL) and reduced exercise tolerance. The severity of clinical manifestations of heart failure (HF) correlated with the degree of left ventricular hypertrophy (LVH). Patients with arterial hypertension (AH) and coronary artery disease (CAD) exhibited more pronounced HF symptoms, poorer exercise tolerance, and a higher degree of LVH.

Due to the limited inclusion of individuals over 45–50 years in randomized clinical trials, unresolved issues remain in managing middle-aged patients with acute coronary syndrome (ACS) and heart failure. These patients require an individualized approach, considering a combination of clinical and anamnestic factors influencing disease prognosis.

Keywords: Chronic heart failure, preserved ejection fraction, coronary artery disease, arterial hypertension, quality of life, prognosis, diastolic dysfunction.

Introduction

Chronic heart failure (CHF) remains one of the leading causes of mortality and disability worldwide. According to the World Health Organization (WHO), the 5-year survival rate for CHF patients does not exceed 30–50% [1]. Particular attention is given to heart failure with preserved ejection fraction (HFpEF), which accounts for 56–59% of all CHF cases [2]. The pathogenesis of

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HFpEF is associated with left ventricular diastolic dysfunction, myocardial fibrosis, and neurohumoral disorders [3].

The relevance of this issue is driven by the increasing prevalence of coronary artery disease (CAD), arterial hypertension (AH), and population aging. After the age of 50, the number of CHF patients doubles every decade, with a sharp increase in incidence after 75 years [4]. Despite advances in diagnosis and treatment, the prognosis for HFpEF patients remains poor, highlighting the need for further research into the clinical and prognostic features of this patient group.

Objective: To evaluate the clinical and prognostic features of patients with unstable angina and HFpEF under conservative treatment.

Materials and Methods

A prospective study was conducted with 80 patients (40 men and 40 women) aged 50–70 years with CAD complicated by HFpEF at stages I–IIA, FC I–III according to NYHA. Inclusion criteria: presence of unstable angina, preserved LVEF (>50%), and clinical signs of HF. Exclusion criteria: severe comorbidities, acute conditions.

The following diagnostic methods were used:

1. Clinical examination: medical history, physical examination, assessment of HF functional class according to NYHA.
2. Instrumental methods: echocardiography (EchoCG) to assess LVEF, diastolic function, and myocardial hypertrophy.
3. Laboratory methods: measurement of natriuretic peptide levels (NT-proBNP).
4. Quality of life (QoL) assessment using the SF-36 questionnaire.
5. 6-minute walk test to evaluate exercise tolerance.

Statistical analysis was performed using SPSS 23.0. The Mann-Whitney U test and chi-square test were used for group comparisons. Correlation analysis was performed using Pearson's coefficient.

Results

HFpEF patients were predominantly women (60%) with abdominal obesity (75%). The primary complaint was dyspnea during physical exertion (90% of cases). A decline in QoL and reduced exercise tolerance correlated with an increase in the total SHOKS scale score ($r=0.72$, $p<0.05$). The severity of HF symptoms was associated with LVH ($r=0.65$, $p<0.05$).

Patients with AH and CAD exhibited more pronounced HF symptoms, poorer exercise tolerance, and a higher degree of LVH. After one year of follow-up, overall mortality was 46% in the group with LVEF <40% and 37.5% in the group with LVEF >40%, with no significant differences in the frequency of cardiovascular events ($p>0.05$).

Discussion

The findings confirm that HFpEF is more common in women with abdominal obesity and is associated with left ventricular diastolic dysfunction. Low QoL and reduced exercise tolerance are key issues in these patients [5]. The lack of significant differences in outcomes between groups

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with different LVEF levels underscores the need for an individualized treatment approach, considering clinical and anamnestic factors [6].

Early initiation of treatment, including non-pharmacological methods (low-sodium diet, controlled physical activity), may improve QoL and prognosis [7].

Conclusion

Patients with HFpEF require early treatment initiation, including non-pharmacological methods (low-sodium diet, controlled physical activity). An individualized approach, considering clinical and prognostic factors, can improve patient outcomes and quality of life.

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