



CHRONIC HEART FAILURE AS A TOPICAL CARDIOVASCULAR PATHOLOGY IN THE ADULT POPULATION

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Abstract:

Chronic heart failure is a syndrome that develops as a result of impaired ability of the heart to fill and/or empty, proceeding in conditions of impaired balance of vasoconstrictor and vasodilating neurohormonal systems, accompanied by inadequate perfusion of organs and tissues of the body and manifested by a complex of symptoms: dyspnoea, weakness, palpitations, increased fatigue and fluid retention in the body (oedema syndrome).

Keywords: chronic heart failure, vascular pathology

INTRODUCTION. According to the American Heart Association, CHF is a significant problem with medical and social status. At present, CHF, standing out among other pathological conditions of the cardiovascular system, is a new epidemic of cardiovascular diseases (CVD), its prevalence, meanwhile, covers more than 23 million people worldwide and at least 5.8 million US citizens (ACA/AHA) [1]. The prevalence of CHF, having captured approximately 1-2% of the adult population in developed countries, has reached quite high rates in individuals over 70 years of age ($\geq 10\%$) and depends on the definition used [4]. At least one in six older individuals (>65 years of age) with complaints of dyspnoea on exercise and accessing primary care will end up with unrecognised CHF (predominantly CCNSFV) [2]. The lifetime risk of developing CHF, while still alive, for men and for women aged 55 years, is 33% and 28% [3]. The proportion of patients with CHF_sFV is dependent on many factors and ranges from 22% to 73% [6]. These factors include: the applicable definition of the disease, clinical base (primary care, polyclinic, clinical hospital), age and gender of the population, number of MIs, and the year of publication of the study.

In our country, CHF, being established on the basis of clinical criteria, is 11.7%, with variability in different regions ranging from 7% to 17% of cases. The diagnosis of CHF was confirmed in 78.8% of hospitalised patients [5]. Among the CHF indicators, the main clinical, epidemiological and economic indicators stand out, including prevalence, aetiology, prognosis and mortality. They are significantly influenced by age, gender, ethnic and social differences in the population under surveillance.

In developed countries, the incidence of CHF among residents has a greater increase than in developing nations [7]. Nevertheless, approaching

2050, it is developing countries that have an unfavourable prognosis for increasing prevalence of CHF. The relevance of CHF, its incidence, prevalence, mortality and its adverse prognosis, remains high. According to the American Heart Association (AHA), CHF was identified as the leading cause of death in 400,000 people in 2018.

Thus, CHF decompensation itself causes frequent, repeated hospitalisations, in turn dramatically increasing the financial costs of ongoing therapy for CHF patients. A similar situation has developed in Uzbekistan, where the prevalence and morbidity of CHF are also in the leading positions [9]. To summarise, we can say that the problem of CHF is common both for Uzbekistan and for the whole world.

Based on the data concerning patients hospitalised in hospitals, the hypothesis that a greater reduction in the incidence of CHF is more characteristic of CHF_nFV than of CHF_cFV looks reliable. It should be noted that the epidemiological profiles of CHF_cFv and CHF_nFv have certain differences: CHF_cFv patients compared to CHF_nFv are usually elderly, female, and often have a history of AH and FP, unlike MI [10].

Lethality. Among many nosologies causing lethality, CVD diseases currently hold leading positions in the structure of morbidity and mortality. In Uzbekistan, the volume of fatal cases from CVDs makes up 59.3% of the structure of total mortality. The ESC-HF pilot study conducted in European countries shows data on annual mortality of patients with CVD. Thus, over 12 months, these figures, which include hospitalised and stable/ambulatory CHF patients, were 17% and 7% all-cause related. The frequency of hospitalisation of these patients over the 12 month period was 44% in hospitalised patients and 32% in outpatients. Basically, most of the fatalities among CHF



patients are related to the occurrence of sudden death and worsening of the clinical course of CHF [12].

The results of epidemiological studies conducted abroad clearly demonstrate the fact that CHF is one of the widespread CHF diseases with a poor prognosis and often fatal outcome. Thus, the Framingham study demonstrates the presence of about 2.5% (5 million) of CHF patients in the USA, aged more than 45 years, with a distinct clinical picture in absolute numbers in the population [13]. Each year, the number of patients worldwide is increasing by 400-600 thousand. At the same time, the prevalence of CHF in the USA and in Europe dynamically varies from 2 to 20, and in the older age group from 23 to 130 per 1000 population.

The European Society of Cardiology (ESC) guidelines on heart failure (2020) state that in the population of European countries, the defined incidence of symptomatic CHF ranges from 1.0% to 2.0% [9]. This implies that a pronounced CHF clinic is seen in at least 10 million people in the total population of European countries with 900 million inhabitants. The incidence of developing myocardial dysfunction in CHF is similar to these figures, without a marked clinical picture of CHF.

The epidemiological study of EPOHA-CHF [2] in Russia convincingly proves that the prevalence of CHF in Russia is about 9.5%, and is at a higher level compared to most other countries. The possible reason here lies in rarely performed cardiac surgical interventions for various cardiopathologies (heart defects, coronary lesions), including ineffective pharmacotherapy of AH and CHF [10]. For example, the results of the EPOHA-AG study showed that only 7.2% of patients received effective therapy for AH [6].

In European countries the main reason for hospitalisation of patients over 70 years old is CHF and accounts for up to 70% of all cases of economic expenditures on solving the problem. In the USA more than 10 billion dollars a year are spent on CHF treatment, and according to Congestive Heart Failure in the United States (1996) these expenses take huge amounts, reaching 38 billion dollars [3]. In Russia, the data of FASON and EPOHA-O-CHF studies show a much smaller amount - about 135 billion rubles [8,P.339-341; 49,P.75-76]. In Uzbekistan, the economic cost indicators are also high and there is an annual increase [13].

Since, in developed countries, the fight against CHF is very expensive, occupying 2-3% of the health care budget, exceeding the costs of treatment of IM and oncological diseases, the economic importance is one of the leading positions [4]. Inpatient treatment of

patients with decompensated CHF requires up to 70-80% of all funds allocated for therapy. In view of this, the stay of patients in hospitals becomes too expensive. In European countries, the total number of bed days does not exceed 10 days, and in the USA it has been reduced to 5.7 days [6]. In CIS countries, particularly in Russia, the duration of inpatient treatment is up to 10 days [7,]. A similar situation with hospitalisation of CHF patients is observed in Uzbekistan, where the average duration of treatment of CHF inpatients is 7-10 days [8]. In addition to the duration of treatment, re-hospitalisation also causes many problems, as 10% to 19% of patients are readmitted to hospital two weeks after discharge. Rehospitalisations are provoked by the following factors: patients' inattention to doctors' recommendations, inadequate therapy and difficult to treat, uncontrolled AH [12].

CONCLUSIONS: thus, summing up the results of the conducted epidemiological studies, we can conclude that there are trends of marked increase in the prevalence of CHF. This is best seen in the results obtained in the Framingham study. Thus, over a period of three decades, the prevalence of CHF, according to this study, from the age of 50-59 years to 80-89 years in the population, there is an increase from 1% to 10%. Preventive measures aimed at eliminating or attenuating the most significant risk factors (AH, tobacco use, hypercholesterolemia) have contributed to attenuating the incidence of CHF and, to some extent, preventing the unfavourable course of the disease. Thanks to the use of thrombolytic therapy in IM patients at the end of the XX century, the prognosis of the disease is improved, mortality is reduced, and the incidence of CHF develops much later. The general ageing of the population also plays its role in this process.

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