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Pandemic Features of Chronic Heart Failure in Young Patients

Низамов Хушнуд Шухратович Директор РСНПМЦ Кардиологии Самаркандский региональный филиал, Узбекистан, г. Самарканд;
Зарина Рахматжановна
врач-кардиолог центр РСНПМЦ Кардиологии Самаркандского регионального филиала, Узбекистан, г. Самарканд;
Рузиева Амира Асроровна
врач-кардиолог центр РСНПМЦ Кардиологии Самаркандского регионального филиала, Узбекистан, г. Самарканд;Низамова Нигора Гаффор кизи магистр Самаркандского государственного медицинского университета.

ABSTRACT

In the etiological aspect of CHF, the dominant nosological units are: non-coronary heart lesions, in particular chronic rheumatic heart disease and dilated cardiomyopathy. Most of those studied according to the NYHA classification belonged to the second stage of the course of the disease, functional class III. Due to the fact that chronic heart failure is a serious complication affecting not only the CVD, but also the respiratory, digestive system; the task of healthcare is significantly heavier in terms of an individual approach to treatment and prognosis.

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Introduction. In the etiological aspect of CHF, the dominant nosological units are: non-coronary heart lesions, in particular chronic rheumatic heart disease and dilated cardiomyopathy. Most of those studied according to the NYHA classification belonged to the second stage of the course of the disease, functional class III. Due to the fact that chronic heart failure is a serious complication affecting not only the CVD, but also the respiratory, digestive system; the task of healthcare is significantly heavier in terms of an individual approach to treatment and prognosis.

In Uzbekistan, according to the latest data, at least 3.5-4.5 million patients have clinical symptoms of chronic heart failure (CHF). The annual registration covers about 30 thousand new cases of the disease. Heart failure ranks third in the root cause of hospitalizations, while even in people over 55 years of age – the first place. The expenditures of the medical budget funds aimed at the treatment of CHF account for about 1-2% of all state budget funds. This indicator includes the cost of hospitalizations, which takes up more than half of all costs. It is also important that the costs increase with the spread of CHF [4, 5].The active advancement of modern methods in a leap forward, in the study of pathogenesis, clinical features and treatment of chronic heart failure, did not affect its prevalence, severe and prognostic adverse complications of cardio-vascular diseases (CVD). The traditional view of CHF is its acceptance and vocation as the nosology of the elderly contingent. Whereas the data from Scandinavian registries confirm a significant increase in the number of patients with CHF at a young age. A characteristic feature of CHF is that it is not only an important medical problem, but also a social and economic problem of every state, including Uzbekistan. Despite the high achievements and over-development in the fields of medicine and pharmacology, the incidence, prevalence

and mortality from CHF still maintain a high pedestal, and the prognosis still leaves much to be desired.Thus, CHF, being a progressive syndrome, in patients with only latent clinical signs and a latent course; within 1-5 years from the onset of the disease, it passes into the group of the most severe complications. CHF causes about 25% of deaths among both young and adult patients; and more than 75% of disability. The latter covers the working age; economically affecting the funds of the state budget and from the point of view of the annual financial provision of disability of patients; also taking into account the costs of hospitalization, due to the progression and decompensation of CHF.This reaches up to 80% of the need for hospitalizations per year. It is worth noting that one of the main target areas of social policy of each state is the protection of public health, prevention of morbidity, early detection of latent course of CVD and reduction of mortality, disability of the population from the latter. All of the above and the above served as a stimulating basis for the study of the characteristic features of the relatively young (<35 years).

Keywords: chronic heart failure, pandemic, clinical stages, functional class, young age.

Target: to study the features of the etiology and manifestations of chronic heart failure in young patients according to the data of the department of chronic heart failure Samarkand Regional Branch of the Republican Specialized Scientific and Practical Medical Center of Cardiology (SRBRPMCC).

Materials and methods. A retrospective analysis of 67 case histories of patients, the department of chronic heart failure of the SRBRPMCC, was carried out for 2018-2022. The analysis was based on the following indicators: gender, age up to 35 years, ethnicity, risk factors for death in CHF, the etiology of CHF, classification according to N.D. Strazhesco and NYHA (New York Heart Association), clinical features of CHF, results of instrumental and laboratory methods of examination. To be included in the study, a selection was needed: patients with a complicated course of chronic heart failure, the age category is strictly up to 35 years.

Results and discussion. Statistical data processing has proved that, among the treated and hospitalized patients with CHF, in the department of chronic heart failure of the SRBRPMCC for 2018-2022, women exceed 46 people (51.4%), while men exceed 21 people (48.6%). The average age of patients in the study group was 29.7 years. The conducted study helped to establish that among the treated and hospitalized patients in the department of chronic heart failure, the main role belongs to the nosological leader - chronic rheumatic heart disease in 31 people (46.3%), dilated cardiomyopathy in 11 (16.4%), congenital heart defects in 9 people (13.4%). Other nosological units were: infectious endocarditis – in 5 people (7.5%); hypertension – in 4 patients (6%); pulmonary hypertension – in 2 (3%); Marfan syndrome – in 2 patients (3%). There were also cases of registration with cardiac arrhythmias-in 2 (3%); restrictive cardiomyopathy, polycystic kidney disease, ischemic heart disease, which amounted to 1 case (1.5%), respectively. Thus, a characteristic feature of the causes of CHF in young people are represented by non-coronary heart diseases. The ethnic feature of the population coverage included the predominance of indigenous residents – 42 (62.7%), non–indigenous - (37.3%). When distributing patients by stages of CHF, according to Strazhesko-Vasilenko, it was revealed: stage I in 1 person. (1.5%), stage IIA in 34 (50.7%), stage IIB in 18 (26.9%), stage III – in 14 people (20.9%). In the distribution of functional classes of CHF, NYHA showed the following results: FC 0 was diagnosed in 1 person (1.5%), FC I – in 16 (23.9%) patients; II – in 26 (38.8%); stage III – in 19 (28.4%); IV – 5 (7.5%) patients.

In the study group of patients, such complaints were identified as: shortness of breath 39 people (58.2%), edema – 12 (17.9%), weakness and fatigue – 14 (20.9%), palpitations – 2 people. (3 %). In our hospital, in severe; and in a state of moderate severity, 16 patients were admitted - this is 23.9%, respectively. The average length of stay in a bed was 14 days.

We also managed to establish modifiable risk factors for CHF, namely: smoking in 19 (28.4%) patients; body mass index above 25.5 - in 13 (19.4%) and blood pressure in 4 (6%). All these risk factors of death, a vicious circle of interrelated changes leading to terminal heart failure. Parametric data of laboratory studies established: an increase in natriuretic peptide in 39 people (58.2%), proteinuria in 7 (10.4%), an increased

transaminase index in 7 (10.45%), hyperlipidemia was detected in 4 people. (6 %). During the ECG study, rhythm disturbances were registered in 3 (4.5%) patients, conduction disturbances – in 7 (10.4%), but there were no signs of myocardial ischemia. ECHOCG data revealed:left atrial dilation – 12 cases (17.9%), left ventricular dilation - 11 (16.4%), right atrial dilation – 9 (13.4%), right ventricular dilation - 14 (20.9%), aortic dilation – 3 (4.5%), pulmonary trunk dilation - 13 cases (19.4%). A reduced ejection fraction was detected in 8 (12%). Mitral valve was affected in 8 (12%) patients, aortic valve – in 6 (9%), tricuspid valve – in 3 (4.5%), pulmonary trunk valve lesion – in 7 patients (10.45%). Effusion pericarditis was found in 1 (1.5%) patients. Chest X–ray examination revealed: left-sided expansion of the boundaries of the heart in 27 (40.3%) patients, right-sided - in 9 (13.4%). Congestion of the small circulatory system was diagnosed in 16 (23.9%) cases (12.5%). Ultrasound examination of abdominal organs revealed: hepatomegaly in 10 patients (15%), splenomegaly in 7 (10.45%), cardiogenic liver fibrosis in 2 (3%), ascites in 2 (3%) patients.

Conclusion. The studies served as a basis for identifying the most frequent complaints: shortness of breath, swelling; and palpitations. ECHOCG data established the predominance of the number of enlarged cavities of the left heart. A large number of patients with chronic heart failure belonged to the group with a preserved ejection fraction. The results of laboratory data analysis revealed an increase in natriuretic peptide, transaminase, and proteinuria. Among the causes of CHF, non-coronary cardiac lesions dominated, these values correspond to scientific research data. When distributing CHF by stages, patients with IIA prevailed, according to NYHA, functional class III. The average age of the patients was 29.7 years, the average length of bed days was 14. Statistical analysis of the data of the department of chronic heart failure SRBRPMCC subsequently established the risk factors of the study group: smoking, high blood pressure, body mass index above 25.5.

Acknowledgement. Thus, CHF is a serious complication affecting not only the cardiovascular system, but also the respiratory and digestive systems, which significantly complicates treatment and prognosis. A population screening algorithm is needed to identify high-risk groups for chronic heart failure, taking into account modifiable risk factors and heredity.

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