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✓ *Resume*

*Bart The article deals with chronic heart failure in the elderly population. Prevalence, risk factors, features of clinical course, and diagnosis of heart failure in elderly patients are described.*

*Key words: chronic heart failure, elderly population, coronary artery disease, arterial hypertension, heart failure with preserved ejection fraction.*

## ХРОНИЧЕСКАЯ СЕРДЕЧНАЯ НЕДОСТАТОЧНОСТЬ: ОСОБЕННОСТИ И КЛИНИЧЕСКИХ ПРОЯВЛЕНИЙ В ПОЖИЛОМ ВОЗРАСТЕ

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*Статья посвящена хронической сердечной недостаточности у лиц пожилого возраста. Освещаются распространенность заболевания, факторы риска, особенности клинической картины и диагностики сердечной недостаточности в пожилом возрасте.*

*Ключевые слова: хроническая сердечная недостаточность, пожилой возраст, ишемическая болезнь сердца, артериальная гипертензия, сердечная недостаточность с сохраненной фракцией*

## СУРУНКАЛИ ЮРАК ЕТИШМОВЧИЛИГИ: ҚАРИЛИҚДА КЛИНИК КЎРИНИШИ ХУСУСИЯТЛАРИ

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*Мақолада кекса одамларда сурункали юрак етишмовчилигининг ўзига хос кечишига бағишланган. Бу касаллигининг тарқалиши, хавф омиллари, клиник кўриниши хусусиятлари ва кекса ёшдаги юрак етишмовчилиги диагностикасини ўз ичига олади.*

*Калит сўзлар: сурункали юрак етишмовчилиги, қарилик, юрак ишемик касаллиги, артериал гипертензия, фракцияси сақланиб қолган юрак етишмовчилиги.*

### Relevance

Chronic heart failure (CHF) is a syndrome with complex the vocabulary of characteristic symptoms (shortness of breath, fatigue, decreased physical activity edema) and clinical signs (enlargement of the cervical veins, small bubbles wheezing in the lungs, displacement of the apical first push to the left). The root cause is violation of the structure or function of the heart, as a result of which it is not able meet the body's needs for oxygen at normal pressure on-fullness of the heart (this is possible only with increasing the filling pressure of the chambers hearts).

Population aging and formation chronic heart failure is closely related, since with age cardiovascular system undergoes involuntary

changes, predisposing to the development of cardiac dysfunction. Thickening of the intima, hypertrophy of the internal elastic membrane branes, increased collagen in the vascular wall are accompanied by progressive loss of elasticity of the croup arteries, which leads to an increase systolic and pulse arterial pressure , increased afterload and systolic vascular stress.

Decreased functional reserves of the myocardium in the elderly makes them more vulnerable to the development of chronic heart failure (both with and without myocardial damage) in various clinical situations (anemia, infections, rhythm disturbances, arterial hypertension, myocardial infarction, cerebrovascular accident,

diabetes mellitus, renal failure). When examining elderly patients, pathological changes in various organs and systems are revealed, due to many reasons and age-related changes.

Chronic heart failure (Syue) is a syndrome with a complex of characteristic symptoms (shortness of breath, fatigue, a decrease in physical activity, edema) and clinical manifestations (swelling of the vessels of the neck, steamed in the lungs). The main reason for this is a violation of the function of the heart, as a result of which it can not meet the needs of the body.

Chronic heart failure has been identified in 23 million people around the world. In our country, the clinically expressed II functional class (FS) is threeeraydi in 5,1 million people, III-IV functional class – threeeraydi in 2,4 million people [1-3]. Estimated risk factors for established and developing chronic heart failure are listed in Table 1.

The Joshua - boo group is an important factor. Xu's are risky. Kadeylik  $\geq 75$  group joshlarining 8.4% yes and 45 joshdan 54 yacha 0.7% yes scientist. Russia Federationsinning airil chernovi Surunkali yurak etismovchiligi Ethan kasallanganlarning 65.5% Research institute formed 60 group yashdan 79 yashgacha bul Vilar viladi keladi. Ushbu kasallikka chalingan barcha - Balar horasida XUE III-IV FS 2016 yilga kelib, 1996 yilga relatively chalingman islallarning absolute sonining of street chocolate kid. XUE, joshing yarmubi 65 dan 75 yashgacha and even undan both bridges of Adam exactly 75 yashdan katta Yarak-kon tomir tizimida fearless yzaryshlya back uchrayi, Jurek disfunziasini rivozhlanigil buladi. Intimaning Kalai pintofi, Ichi elastic membrane hypertofiisi, collagen quantifying bridge con-tomir devorida katta arterianing estakini yunkidi bilan birga keladi, esa systolic and pulse arterial bosim (BP) olibiga keladi street. [2,4]

A feature of chronic heart failure in old age is the presence of several etiological factors leading to its development. The main causes of chronic heart failure in people of this age group are arterial hypertension, coronary heart disease and their combination, as well as diabetes mellitus and obesity in combination with cardiovascular pathology.

In elderly people, the functional reserves of the myocardium are reduced and lead to the development of various levels of chronic heart failure. information on clinical cases (anemia,

infections, rhythm disturbances, arterial hyperplasia): the presence of myocardial infarction, cerebral circulation disorders, diabetes, chronic renal failure in elderly people makes the clinic even more difficult. [5,6]

In the examination of elderly patients there will be pathological changes in different organs and for many reasons and age changes.

The characteristic feature of chronic heart failure in old age will be several etiological factors that lead to its development. People of this age group, the main causes of Syue are hypertension, heart disease and their combination, as well as in combination with diabetes and obesity, which further exacerbates the course of cardiovascular pathology. In old age, Syue is often accompanied by a decrease in its fraction. [5,7]

Unlike young people, Syue does not appear as an isolated disease in old age and is always accompanied by other diseases. Tiradi the presence of many diseases at the same time changes the clinical picture and makes diagnostics difficult, so it will be necessary to choose the optimal and safe treatment.

In addition to polymorbiditis, elderly patients are characterized by a manifestation of low symptoms. There will be chronic heart failure or minimal complaints that almost do not bother patients, because joint diseases are often hidden..

Classic heart symptoms-this is shortness of breath, peripheral edema and fatigue. As one of the first symptoms of the disease, shortness of breath occurs only in physical labor initially, and disappears when physical labor ceases. Later, when the disease progresses, shortness of breath appears in a slight physical effort, which later also appears in a calm state. The cause of this symptom is venous dimpling in the framework of small blood circulation, a decrease in gas exchange in the lungs and a shortage of the respiratory center hansirashninng also appear in the sitting position, which indicates a pronounced violation of hemodynamics and is indicative of significant dimming in the framework of small blood circulation.

Along with shortness of breath, patients are often disturbed by a cough that occurs mainly at night or after exercise in a calm state. Its appearance is explained by the dimpling of blood in the lungs, swelling of the bronchial mucosa and a shortening of the cough receptors.

**Table 1.**  
**Dangerous factors that cause chronic heart failure**

Key clinical risk factors Age, male sex, arterial hypertension, Hypertrophy of the left ventricle, myocardial infarction heart defects, diabetes
<b>Small clinical risk factors</b> <b>Smoking, dyslipidemia</b> chronic kidney diseases, albuminuria, sleep apnea syndrome, anemia, a sedentary lifestyle, nutrition, low socio-economic status, psychological stress
Peripheral cardiomyopathy Infectious diseases Viral, bacterial, parasitic (Chagas disease)
<b>Genetic predispositions</b> <b>family Anamnesis, congenital defects</b>
<b>Morphological predicates</b> <b>Diastolic enlargement of the left ventricle,</b> <b>Hypertrophy of the left ventricle</b> <b>Dysfunction of the left ventricle,</b> <b>Left ventricular diastolic dysfunction</b> <b>Biomarkers</b> <b>Activation of immunitet (tumor necrosis factor, interleukin – 6, C – reactive</b> <b>protein, insulin-like growth factor),</b> <b>natriuretic peptids,</b> <b>trope of hearts</b>

The first complaints of chronic heart failure are heart palpitations during physical activity , followed by the appearance even in a calm state. Heartbeat occurs in the form of sinus tachycardia as a result of the activation of the sympathoadrenal system.[3,4]

Often, with heart failure, nocturia occurs, which occurs relatively early. Nocturia is caused by increased renal blood flow, glomerular filtration rate and natriuretic peptide level, which contributes to increased urination. [1.2]

At the initial stage of the disease, the tumor appears on the heels on the legs and in the second half of the day. The causes of edema syndrome in the body are different, but first of all they occur as a result of the retention of sodium and water in the body, venous dimpling within the framework of large blood circulation, and an increase in the gostatic pressure in the capillary system. Peripheral edema is usually not observed in patients with proper treatment and in the case of decompensated systolic myocardial dysfunction.

A decrease in blood flow in the abdominal organs and an increase in venous pressure lead to a decrease in hepatic blood flow and liver damage, basically which morphological and functional changes lie. The mechanisms leading to liver hypoxia in chronic heart failure are passive venous congestion.[5]

Most often, with heart failure, most often in the early stages, nocturia occurs. The cause of nocturia is an increase in renal blood flow, an increase in the level of glomerular filtration and an increase in the level of natriuretic PID.[6]

A decrease in blood flow in the abdominal organs and an increase in venous pressure lead to a decrease in blood circulation in the liver, and the liver is damaged, which leads to morphological and functional changes in the liver . Liver injury at Syue is fraught with steamed Hepatology, ischemic hepatitis, cardiac fibrosis and liver cirrhosis . At an older age, often an increase in systolic dysfunction of the left ventricle and heart decompensation lead to ischemic hepatitis . The leader of this condition is heart rhythm disorders, acute heart infarction, pulmonary artery thromboembolism. In the elderly, the increase in aminotransferases in the blood, the emergence of coagulopathies and kidney dysfunction, provokes thinking about Syue. [3]

In an elderly patient, shortness of breath, fatigue or peripheral edema are reported not only from Syue, but also from other diseases and pathological conditions, such as chronic obstructive pulmonary disease, obesity, anemia, depression, cognitive impairment, which is considered an initial sign. [5]

The first signs of chronic heart failure are fatigue, muscle weakness, heaviness in the legs , often due to normal daily physical exertion

(washing, cleaning the bedroom), it should be borne in mind that patients do not pay much attention to this with age restrictions in this group when performing physical activity. Because they change the way of life when they realize it with the aim of reducing the obvious manifestation of their clinical variant. In elderly patients, changes in the musculoskeletal system and cerebrovascular changes restrict active movement.

Pathology of the musculoskeletal system (arthritis, arthrosis), chronic venous and lymphatic insufficiency often mask the appearance of heart tumors.

Older patients, in addition to the above symptoms, again complain of headaches, dizziness, singapial States, mood swings, irritability, sleep disturbance.

In the detection of Anamnesis, 38% of elderly patients with chronic heart failure are often difficult to detect conjunctival disorders. With the presence of conjunctival disorders, it becomes difficult to collect Anamnesis. They may not be able to follow the doctor's regimen and recommendations, or may not remember or ignore information, symptoms, unless their condition worsens significantly until the development of a lung tumor.

Chronic heart failure significantly impairs the quality of life to the level of restriction of their full quality of life. Affects the level of life of patients, especially in the elderly, depression, psychological anxiety, social isolation. [1,2]

Diagnosis of chronic heart failure in old age, as well as in the younger age, is based on the data of complaints assessment, Anamnesis, during the physical movement and calm state of such clinical manifestations as, on the basis of the object and instrumental studies. When collecting Anamnesis, it is necessary to pay attention to the presence of cardiovascular diseases: heart disease, the presence or absence of tonsillitis, myocardial infarction, heart rhythm disorders, hypertension, episodes of arrhythmia. It should also be noted that hypertrophic or dilatation cardiomyopathies are noted in family Anamnesis. [4]

The presence of cardiomyopathies, death from seizures, implantation of an artificial pacemaker, as well as bone muscle diseases are indicative of the development of heart failure. Some may have symptoms similar to symptoms of lung, kidney, liver disease, anemia heart failure. This is very important in the diagnosis and evaluation of the functional class of chronic heart failure.

Diagnosis of chronic heart failure:

1) specific symptoms of heart failure (shortness of breath, fatigue and limitation of physical

activity, edema) complaints during a calm state or during physical labor;

2) Physical Examination data (examination, palpation, auscultation) or clinical signs;

3) data of the obektiv (instrumental) research methods.

It should be remembered that no classic symptoms of chronic heart failure - shortness of breath, swelling of the ankles, fatigue – can be used to diagnose the arrival of the individual. The attending physician can determine the presence of heart failure, taking into account the available Anamnesis data, clinical signs of the disease. Thus, patients in the elderly are characterized by polymorbidity, and heart failure is a multi-systemic sign. In most cases, shortness of breath, fatigue and peripheral edema may occur.[4]

In addition to the symptoms, it is important to take into account the clinical signs of heart failure, which the doctor determines independently, without the use of special equipment. So, dilatation of the Left Ventricle manifests itself signs of cardiomegaly (displacement of the apical impulse; an increase in the boundaries of cardiac dullness; the appearance of a third tone); fluid retention in the body - congestive symptoms (edema of different localization, more often on the legs, which, as a rule, are symmetrical; hepatomegaly; swollen cervical veins; fine bubbling rales);neuroendocrine activation - increased tone of the sympathetic nervous system (tachycardia). When objectively examining the patient, it is necessary to take into account the fact that the character and the severity of his existing clinical manifestations depend on the severity of heart failure. [3]

Support points when setting diagnosed with Chronic Heart Failure are:

1) characteristic symptoms of heart failure (shortness of breath, fatigue and physical activity limitations, edema) at rest or during exertion or the patient's complaints;

2) physical examination data (examination, palpation, auscultation) or clinical signs;

3) data of objective (instrumental) survey methods

It should be remembered that none of the classic symptoms of CHF - shortness of breath, swelling of the ankles, fatigue – alone can be used to make a diagnosis. The attending physician, taking into account the available history data, clinical symptoms and signs of the disease, can diagnose heart failure.

Thus, patients of older age groups are characterized by polymorbidity, and heart failure is of a multisystem nature. Shortness of breath, increased fatigue and peripheral edema can be

caused by many noncardiogenic factors and not always indicate the presence of heart failure in the patient. The doctor should always assume the cardiovascular causes of the patient's illness and carry out diagnostic search for heart disease and hypervolemia.

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