

# PREVALENCE OF CHRONIC HEART FAILURE IN ANDIJAN OF THE REPUBLIC OF UZBEKISTAN

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## **Summary**

A phased clinical and epidemiological analysis of the population of the adult population of the city of Andijan of the Republic of Uzbekistan was carried out. At the 1st stage, the demographic and social characteristics of the population were established, the risk factors for CVD and the main clinical symptoms of CHF were identified. A group of patients with CVD was identified in the population (598 people). The prevalence of "probable" CHF was established (306 people).

**Keywords:** chronic heart failure, risk factors, "probable" CHF.

### Relevance

Chronic heart failure (CHF) is one of the important problems of modern medicine [1,4]. Over the past decades, an increase in the number of patients with CHF, especially severe functional classes, has been registered. Thus, in the United States, about 5.7 million patients are diagnosed with CHF, and according to forecasts, by 2030, this figure will increase to 8 million [3,4]. In the Russian Federation (RF), over the past 10 years, the prevalence of CHF in the population has been growing and, depending on the region, varies from 7% to 12% [1,2].

The aim of the study was to study the prevalence of CHF in Andijan, to assess risk factors and progression, and the characteristics of the clinical course of the disease.

# **Material and Methods**

A phased clinical and epidemiological analysis of the population was carried out. The object of the general population of the survey was the population of the city of Andijan aged 18 to > 90 years - 2112 people. A representative sample of 1802 people was created to conduct a clinical and epidemiological study.

## **Results and Discussion**

An analysis of the clinical and demographic data of the Andijan population showed that the social status was dominated by the non-working contingent - 50.1% (902)

people), of which: pensioners - 13.5% (243 people), students - 18.9% (340 people), disabled people - 4.8% (87 people). The presence of education was characterized by the predominance of specialized secondary - 35% (631 people).

BP indicators. In 35.4% of people, an increase in blood pressure over 140/90 mm Hg was noted. Art., of which women - 413 people. (64.7%). Elevated blood pressure was recorded in 813 people. (45.1%), while the diagnosis of hypertension, among the examined, was established only in 402 people. (22.3%) (Fig. 1).

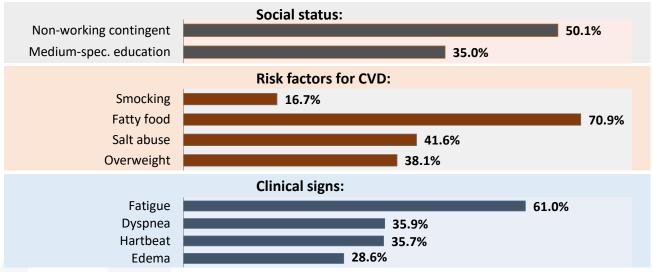


Fig. 1 Clinical and epidemiological aspects of the incidence of CHF in the population of Andijan (n=1802)

Of the risk factors for cardiovascular disease (CVD): smoking accounted for 16.7%, of which 98% were men (294 people). Taste habits - fatty foods - 1277 people (70.9%), excessive salt intake - in 750 people (41.6%). Overweight and obesity > 25 kg / m $^2$  - 685 respondents (38.1%), with elevated BMI > 30 kg/m $^2$  and signs of obesity - in 102 (5.7%) examined. Alcohol - did not use 91.8% (1655 people) (Fig. 1).

Among the clinical symptoms of CHF, the leading symptom was fatigue - 1099 people (61%), 360 people (20%) positioned it as the only leading symptom, in combination with other symptoms, fatigue was observed in 739 patients (41%). Shortness of breath covered a total of 641 people (35.9%), it manifested itself as a monosymptom in 90 (5.0%) people, together with other symptoms - in 557 (30.9%) people. Heartbeat by occurrence was 644 people (35.7%), as a monosymptom - in 47 (2.6%) and in combination with others - in 597 (33.1%) people. Edema on the lower extremities - in 516 subjects (28.6%), as a monosymptom - in 46 (2.6%) and combination - in 470 people (26.0%).



Persons with cardiovascular diseases (Fig. 2).

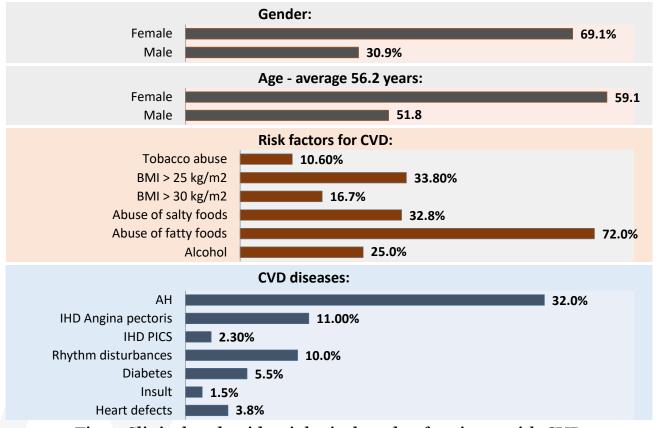


Fig. 2 Clinical and epidemiological study of patients with CVD in the population of Andijan (n=598)

Persons with CVD in the population amounted to 598 people (33.2%) aged 18 to 94 years, females prevailed over males: 413 (69.1%) versus 185 (30.9%) people. At the same time, the difference in the average age between women and men was not statistically significant and amounted to 59.1 years (56.4 - 63.8) for women and 51.8 years (50.2 - 56.7) for men.

The main disease was hypertension - 32.0%, then 198 people (11%) suffered from angina pectoris, myocardial infarction was observed in 42 (2.3%), rhythm disturbances in 180 (10%), diabetes mellitus was diagnosed in 100 (5, 5%), cerebrovascular accident in 27 (1.5%) patients, heart defects were present in 68 (3.8%) patients. Of the above diseases, the presence of CHF was noted in 117 patients (6.5%), and in 10 patients (0.6%), CHF was the only leading disease.

The diagnosis of "probable" CHF was determined according to the criteria and symptoms used in the EPOHA-CHF study (Russia, 2002-2017) [1]. The following four main symptoms of CHF were established: fatigue, shortness of breath, palpitations, swelling of the lower extremities [1,2]. 306 respondents aged 19 to 94 years (17.0%) were identified, suffering from cardiovascular diseases, whose

symptoms and complaints corresponded to "probable" heart failure. Among the examined women prevailed - 217 (70.9%), men were much less - 89 (29.1%). 101 (5.6%) subjects made up the group with CHF II-IV FC, "severe" CHF III-IV FC was represented by a group of 87 (4.8%) people. The maximum number, 118 (6.6%) people, was achieved in a group of patients with CVD diseases and having one criterion in the form of dyspnea of varying severity.

#### **Conclusions**

- 1. The population of the adult population of Andijan was characterized demographically: women 69.1%, average age 51.2 years, non-working population 50.1%; secondary and secondary special education 53.5%.
- 2. The risk factors for CVD in the population were: smoking 16.7%; fatty foods 70.9%, salt abuse 41.6%; overweight 38.1%.
- 3. The main clinical symptoms of CHF in the population were: fatigue 61%, shortness of breath 35.9%, palpitations 35.7%, edema 28.6%.
- 4. The structure of CVD was dominated by: AH 32%, coronary artery disease 13.3%. The prevalence of "probable" CHF was 17%.

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