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PREVALENCE OF CARDIOVASCULAR DISEASES AMONG THE POPULATION OF BUKHARA REGION

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Abstract: One of the urgent problems of our time is the treatment of patients with cardiovascular diseases and, of course, the development of preventive measures. Currently, cardiovascular disease (CVD) is one of the main causes of death and disability of the population worldwide. Diseases of the cardiovascular system are closely related to a person's lifestyle and existing risk factors. While most risk factors can be controlled by lifestyle changes, some (hypertension, dyslipidemia, and diabetes) can be corrected with medication.

Key words: Cardiovascular diseases, heart, obesity, myocardial infarction, stroke, hypertension, smoking

Currently, cardiovascular diseases are one of the main causes of death and disability of people around the world. WHO estimates that 17.9 million people died from cardiovascular disease in 2016, accounting for 31% of all deaths worldwide. 85% of these deaths were due to MI and stroke. More than 75% of NCD deaths occur in low- and middle-income countries, and are almost equal among men and women. Of the 17 million deaths from non-communicable diseases under the age of 70, 82% occur in low- and middle-income countries, and 37% are caused by cardiovascular disease. {1}

Diseases of the cardiovascular system are one of the urgent problems of health care in the Republic of Uzbekistan. According to the State Statistics Committee, 62.1 percent of citizens who died in the Republic of Uzbekistan in January-June 2019 were caused by diseases of the circulatory system. {2}

This indicator shows that we need to strengthen preventive measures in this area, in addition to new complex treatment plans. Our head of state, Shavkat Mirziyoyev, announced that from 2022, citizens over 40 years of age will be screened at least once a year, focusing on the field of cardiovascular diseases. {3}

The prevalence and severity of obesity have increased in the United States and most of the Westernized World over recent decades, reaching worldwide epidemics. Since obesity worsens most of the cardiovascular disease (CVD) risk factors, not surprisingly, most CVDs, including hypertension, coronary heart disease, heart failure, and atrial fibrillation, are all increased in the setting of obesity. However, many studies and meta-analyses have demonstrated an obesity paradox with regards to prognosis in CVD patients, with often the overweight and mildly obese having a better prognosis than do their leaner counterparts with the same CVD. The implication for fitness to markedly alter the relationship between adiposity and prognosis and the potential impact of weight loss, in light of the obesity paradox, are all reviewed. {4}

Current epidemiologic predictions suggest that CVD is reaching pandemic proportions. It is already the number 1 killer worldwide, and the prevalence of cardiovascular risk factors is

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increasing. Future cardiovascular burden is likely to be exacerbated by the aging population, the increasing obesity epidemic, and insufficient implementation of prevention strategies. However, global surveillance studies suggest that cardiovascular risk factors operate the same way in all populations the world {5}

Environmental exposure is an important but underappreciated risk factor contributing to the development and severity of cardiovascular disease (CVD). The heart and vascular system are highly vulnerable to a number of environmental agents—ambient air pollution and the metals arsenic, cadmium, and lead are widespread and the most-extensively studied. Like traditional risk factors, such as smoking and diabetes mellitus, these exposures advance disease and mortality via augmentation or initiation of pathophysiological processes associated with CVD, including blood-pressure control, carbohydrate and lipid metabolism, vascular function, and atherogenesis. Although residence in highly polluted areas is associated with high levels of cardiovascular risk, adverse effects on cardiovascular health also occur at exposure levels below current regulatory standards. Considering the widespread prevalence of exposure, even modest contributions to CVD risk can have a substantial effect on population health. Evidence-based clinical and public-health strategies aimed at reducing environmental exposures from current levels could substantially lower the burden of CVD-related death and disability worldwide. {6}

The cardiovascular system consists of the heart and blood vessels.[1] There is a wide array of problems that may arise within the cardiovascular system, for example, endocarditis, rheumatic heart disease, abnormalities in the conduction system, among others, cardiovascular disease (CVD) or heart disease refer to the following 4 entities that are the focus of this article[2]:

1. Coronary artery disease (CAD): Sometimes referred to as Coronary Heart Disease (CHD), results from decreased myocardial perfusion that causes angina, myocardial infarction (MI), and/or heart failure. It accounts for one-third to one-half of the cases of CVD.

2. Cerebrovascular disease (CVD): Including stroke and transient ischemic attack (TIA)

3. Peripheral artery disease (PAD): Particularly arterial disease involving the limbs that may result in claudication

4. Aortic atherosclerosis: Including thoracic and abdominal aneurysms

Heart disease (heart disease) is a group of pathologies related to the cardiovascular system, manifested by a violation of the normal functioning of the heart. Such diseases may be caused by damage to the epicardium, pericardium, myocardium, endocardium, heart valve apparatus and blood vessels. Along with various tumors, it is one of the main causes of early death in developed countries today. According to research by the Framingham National Heart, Lung and Blood Institute (USA), the most important factors in the development of cardiovascular diseases in people are obesity, sedentary lifestyle and smoking. {7}

In addition, there are several other factors that lead to cardiovascular diseases. They consist of:

• Age

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• Heredity

• Alcoholism.

• Stress.

• High cholesterol.

• Lack of sleep and excessive fatigue.

• Hypodynamia.

• Unfavorable ecology.

• Unbalanced diet: excessive consumption of salt and fat.

We analyze the frequency of risk factors of cardiovascular diseases among the population of Bukhara region according to the gender of patients and the total number of risk factors in them. The object of the study is based on 382 patients aged 25-69 without clinical signs of atherosclerosis. 382 patients were examined: 33.2% (127) men and 66.8% (255) women ($p<0.0001$). The results of the study showed that smoking was detected in 73.8% of examined patients (90) and 5.1% (13) of women. Overweight/obesity and AH were detected in approximately equal proportions, 55.1% (70) and 51.9% (66) of men and 54.1% (138) and 56.1% (143) of women, respectively . The results show that every second woman and man is diagnosed with hypertension and obesity and overweight. Among the population of Bukhara region, 86.2% of men and 44.9% of women had 3 or more risk factors at the same time.

The most feared complication from CVD is death and, as explained above, despite multiple discoveries in the last decades CVD remains in the top leading causes of death all over the world owing to the alarming prevalence of CVD in the population. Other complications as the need for longer hospitalizations, physical disability and increased costs of care are significant and are the focus for health-care policymakers as it is believed they will continue to increase in the coming decades. For people with heart failure with reduced ejection fraction (HFreEF) of less than 35%, as the risk of life-threatening arrhythmias is exceedingly high in these patients, current guidelines recommend the implantation of an implantable-cardioverter defibrillator (ICD) for those with symptoms equivalent to a New York Heart Association (NYHA) Class II-IV despite maximal tolerated medical therapy. Strokes can leave people with severe disabling sequelae like dysarthria or aphasia, dysphagia, focal or generalized muscle weakness or paresis that can be temporal or cause permanent physical disability that may lead to a complete bedbound state due to hemiplegia with added complications secondary to immobility as is the higher risk of developing urinary tract infections and/or risk for thromboembolic events. There is an increased risk of all-cause death for people with PAD compared to those without evidence of peripheral disease. Chronic wounds, physical limitation, and limb ischemia are among other complications from PAD. {8}

Currently, measures are being developed in all countries to reduce the rate of death and disability of the population caused by cardiovascular diseases, because these diseases are

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common among the necessary personnel of the population who are able to work. In accordance with the President of the Republic of Uzbekistan dated 29.03.2017 No. PQ-2857, the establishment of clinical biochemical and instrumental (ECG, UTT, etc.) laboratories for the purpose of early diagnosis of diseases and prevention of chronic diseases in rural residents located far from the city tasked to achieve. To fight against cardiovascular diseases at the national level, we need to take the following measures:

1. Strengthen primary prevention by combating risk factors that cause diseases of the cardiovascular system.

2. Carrying out preventive measures and providing medicines in the primary links of the health care system.

3. Material provision of the technical base of modern diagnostics and treatment in the primary links of the healthcare system.

4. To increase the quality of providing first aid to the population and the size of the covered population.

5. Improving the qualifications of medical personnel serving the population.

6. Establishment of cardiology centers for cardiosurgical treatment in all regions of the republic

7. Organization of receiving remote qualified medical consultations (telemedicine) using the achievements of the modern IT field in medicine. Currently, 20% of children and adults with cardiovascular diseases die and 80% become disabled {9}

Summary.

Cardiovascular diseases are currently among the most urgent diseases. The death rate from these diseases is increasing year by year. Today, rather than treating these diseases, it is more important to prevent and develop complex measures.

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