

## ASPECTS OF DIABETES MELLITUS

**Mamaraimov I., Subkhanov S.**

Scientific supervisor: Assistant of the Department of Endocrinology - **Nozima**

**Sobirzhonovna Kurbanova**

Samarkand State Medical University

Uzbekistan Samarkand

**Abstract:** In endocrinology diabetes has a special place because it has a lot of complications and therefore in our work revealed aspects of it on the basis of literary analysis.

**Key words:** complication, prevalence, aspects, cardiac pathology.

Diabetes mellitus is one of the most common diseases; according to WHO, the number of patients increases annually by 5-7%; 2.3 million people with diabetes are registered in Russia, of which 14 thousand are children and 10 thousand are adolescents. As data from literary sources show that the increase in the incidence of diabetes has been defined by WHO as an epidemic of a non-communicable disease, and therefore international regulations have been adopted aimed at combating diabetes. The increase in the number of patients with diabetes has been confirmed by many epidemiological studies, mainly due to type 2 diabetes.

As foreign sources show, the incidence of type 1 diabetes is also increasing, while the prevalence of type 1 diabetes varies widely in different regions - the number of patients is known to increase in the direction from south to north and from east to west, with the maximum number of patients in the Scandinavian countries, however, exceptions have been identified, justify the need to continue epidemiological studies, including in the Russian Federation, where detailed information began to appear only in recent years.

Diabetes mellitus (DM) is an acute medical and social problem that is among the priorities of the national health care systems of most countries of the world due to the increasing spread of this syndrome, despite the constant improvement of treatment.

Being a common "social" disease, diabetes is considered both a risk factor for the development of heart failure and a significant aggravating factor for its course. It is known that diabetes increases the risk of developing chronic heart failure (CHF) by 5 times in women and 2.6 times in men.

Diabetes accounts for from 85% to 95% of all cases of diabetes in developed countries, while in developing countries and with a low standard of living this figure may be even higher. Moreover, the prevalence of heart failure among patients with diabetes ranges from 10 to 22%, which is 4 times higher than the incidence in the general population.

According to the European Association of Cardiology, the prevalence of CHF of ischemic origin in diabetes mellitus in population studies increases with age and ranges from 0.1-1% among women aged 45-54 years and up to 10-15% at the age of 65-74 years, in men – from 2-5% (45-54 years) to 10-20% (65-74 years).

According to the WHO definition, "diabetes mellitus is a clinical syndrome of chronic hyperglycemia and glycosuria, caused by absolute or relative insulin deficiency, leading to metabolic disorders, vascular damage, neuropathy and pathological changes in various organs and tissues." In accordance with this definition, it is difficult to agree with the widely known phrase "diabetes is a way of life," especially in the practice of a pediatric endocrinologist.



As experts describe in their works, the full drama of the problem of type 1 diabetes in the population of children and adolescents is determined by a pronounced violation of the child's quality of life, the early development of complications with disability of patients and a decrease in life expectancy

. During childhood, with poor compensation of carbohydrate metabolism, the physical and sexual development of children is disrupted early, which further limits the ability of patients to work and leads to impaired reproductive function. Until now, the incidence of ketoacidosis, one of the most dangerous complications of diabetes, is high, both at the onset of the disease and as a result of violation of therapeutic tactics, with a high risk of death. Patients with diabetes have an increased risk of developing cardiovascular diseases at a fairly young age, while the mortality rate of patients increases by 2-3 times.

As experts note, in the vast majority of patients, compensation for carbohydrate metabolism is currently very far from the desired goals, despite advances in understanding the pathogenetic aspects of the disease and the introduction of modern treatment methods - new drugs of insulin analogues, the use of insulin pumps. With uncompensated carbohydrate metabolism, patients more often have complications, not only microvascular, typical for type 1 diabetes, but also less typical for type 1 diabetes - dyslipidemia, steatohepatitis, arterial hypertension and damage to large vessels.

Doctors of many specialties are faced with manifestations of diabetes, since this disease affects almost all body systems, but most often, along with endocrinologists, these patients are treated by surgeons. Approximately 25% of patients with diabetes are diagnosed in surgical departments, where they are hospitalized for emergency or planned surgical treatment. With this The most dramatic complications of diabetes occur in the lower extremities.

Diabetes mellitus of the foot (DMF) occurs in various forms in 30-80% of patients with diabetes, which increases the risk of developing gangrene of the lower extremities by 20 times and this category of patients accounts for 50-70% of the total number of lower extremity amputations. Amputation, on the one hand, is a life-saving operation, but on the other, a crippling operation. According to a number of authors, every 5 out of 6 amputations not related to trauma are performed by patients with diabetes. If we extrapolate the data obtained to the global level, then the number of amputations in patients with diabetes in a global context will be 55 amputations per hour. According to the US National Diabetes Commission, the number of patients with diabetes who have undergone lower limb amputation ranges from 5 to 15%, which is 20-40 times more than in the general population. Postoperative mortality is 13-35%. About 30% of patients with diabetes after amputation of one limb undergo amputation of the second limb within 1-3 years. Also, as foreign authors note, the number of patients who died during the first three years after surgery reaches 35%, and within 5 years - 60-75%. In addition, many of these patients lose the ability to lead an active life. Due to hopelessness, doom, and helplessness after amputation, patients develop anger, aggressiveness, fear, and neurasthenia. Among patients with diabetes, anxiety-depressive and asthenoneurotic mental disorders are widespread (71.8%), which is mainly associated with concern about the possibility of high amputation of the lower limb.

As noted by the authors of the literature, the progression of endothelial dysfunction, which occurs under hypoxic conditions, is accompanied by a change in the elasticity of the vascular wall and an increase in the concentration of ED markers in the peripheral blood. It should be noted that the severity of vascular dysfunction in children with T1DM and the timing of its



appearance in the natural course of the disease have not yet been determined. Also, the relationship between the manifestations of endothelial dysfunction and complications of diabetes mellitus in children and adolescents, especially in their natural course, has not been clarified.

Thus, summing up the results of the literature analysis, it can be noted that an in-depth study of the clinical and pathogenetic features of diabetes, including in the context of the variability of the course and therapeutic effects in patients, is necessary to understand new aspects of the progression of the pathology.

**Used sources:**

1. Azova, E. A. Diagnosis of renal hemodynamic disorders in children and adolescents with type 1 diabetes mellitus / E. A. Azova // Issues. let's lie, pediatrics. -2008. No. 4. - P.143-144.
2. Alexandrov, A. A. Diabetes mellitus: the disease of “exploding” plaques /
3. A. Aleksandrov // SopsShit-tesIsit. 2001. - No. 10. - P.464-468.
4. Tsizi ARA, Isrofilovich M.Yu., Azimovna A.A. & Cisi, R. R. T. (2023). RADIATION SEMIOTICS OF BREAST PATHOLOGIES DEPENDING ON THE STATUS OF THE THYROID GLAND. BEST STUDENT OF THE CIS, 1 (1).
5. Azimova A. and Akhatkulov T. (2022). PATHOGENETIC AND PROGNOSTIC SIGNIFICANCE OF IMMUNE INFLAMMATORY MARKERS IN ASYMPTOMATIC ATHEROSCLEROSIS. Solving Social Problems in Management and Economics, 1(1), 54-56.
6. Azimova, A. A., & Malikov, D. I. (2023). DETECTION OF BREAST CANCER WITH THE ADDING OF ANNUAL ULTRASOUND SCREENING OR SINGLE MRI SCREENING TO MAMMOGRAPHY IN WOMEN AT INCREASED RISK OF BREAST CANCER. THE BEST STUDENT OF THE CIS, 1(1).
7. Malikov, D. I., Azimova, A. A., & Rakhmanov, M. I. (2023). FUNDAMENTALS OF ULTRASOUND ELASTOGRAPHY FOR DIAGNOSIS, EVALUATION AND STAGING OF BREAST CANCER ASSOCIATED LYMPHEDEMA: A SYSTEMATIC REVIEW OF THE LITERATURE. THE BEST STUDENT OF THE CIS, 1(1).
8. Kuchimova S. A. NEUROTIC PROLONGED DEPRESSION IN WOMEN //Science and modern educational technologies. – 2022. – pp. 14-17.
9. Kuchimova S. A. et al. ALGORITHM OF CLINICAL TYPOLOGICAL CHARACTERIZATION OF THE SYMPTOMATOLOGY OF PATIENTS WITH DYSTHYMIA // Knowledge system in the development of science and education. – 2021. – P. 213-218.