

WIDESPREAD SCREENING FOR PATIENTS WITH TYPE 2 DIABETES MELLITUS

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Abstract: The review data on the epidemiology, diagnosis and prevention of comorbid patients with type 2 diabetes mellitus (type 2 DM) is presented, attention is focused on the early diagnosis of carbohydrate metabolism disorders using screening.

Key words: Prediabetes, type 2 diabetes mellitus, diagnosis, screening.

The incidence of diabetes mellitus (DM), a chronic and at this stage incurable disease, has acquired the character of a “non-infectious epidemic”. According to the International Diabetes Federation (IDF), in 2025 there will be about 380 million people with diabetes. However, already in 2011, the number of cases approached this value, reaching 366 million people, with the vast majority of patients - from 85 to 95% - suffering from type 2 diabetes and in 183 million people the disease remains undiagnosed. The prevalence of diabetes in some regions of the world reaches 20% or more [1]

This progressive increase in the prevalence of diabetes (mainly type 2) is associated with an increase in both incidence and early detection thanks to modern screening methods. Among the main reasons for the increase in the incidence of type 2 diabetes are the aging of the population and the spread of obesity. It is known that as life expectancy increases, the number of so-called “normal diseases of aging” also increases. These diseases include obesity, arterial hypertension (AH), atherosclerosis, menopause, depression, cancer, and diabetes. In recent decades, the number of obese people has increased not only among middle-aged and elderly people, but also among young people and adolescents. Metabolic syndrome or insulin resistance syndrome (IR), which is based on abdominal obesity, is detected even in children, who are increasingly being diagnosed with type 2 diabetes [2].

The number of patients suffering from type 2 diabetes is such that endocrinologists cannot provide care to all patients. In this regard, there is a need for their management by therapists and general practitioners. At the same time, in people over 40-50 years of age, as a rule, the incidence is not limited to one or two pathologies. General practitioners need to treat “not the disease, but the patient,” so the therapist is a gastroenterologist, a pulmonologist, and a cardiologist. However, with regard to such a common pathology as type 2 diabetes, internists and general practitioners are unsure of their prescriptions, and any patient complaints are attributed to this disease. Due to the fact that type 2 diabetes has long grown beyond the framework of simply an endocrinological pathology and has become a satellite condition for a number of “vascular” diseases, it is often difficult to understand the clinical diagnostic criteria and prescribe treatment in conditions of acute time pressure.

Methods and Results. An examination of 52 patients with hyperglycemia detected for the first time gave the following results: 5 people (9.6%) categorically refused further examination without explaining the reason; 19 – (36.5%) had impaired glucose tolerance; 8 patients (15.4%) were diagnosed with type 2 diabetes; in the remaining 20 people (38.5%) no carbohydrate metabolism disorders were detected. Thus, out of 340 patients who were screened for disorders of carbohydrate metabolism in general, pathological levels of glycemia were determined in 66 people (19.4%), while the proportion of previously diagnosed diabetes mellitus was 11.5% (n = 39), newly diagnosed diabetes – 2.4% (n = 8), and prediabetes – 5.6% (n = 19) [8 Early diagnosis]. Considering the current unfavorable situation in diagnosing carbohydrate metabolism disorders throughout the civilized world, including Belarus, there is a mandatory recommendation to

actively identify type 2 diabetes, namely through screening. Screening tests are performed based on fasting plasma glucose levels or when performing an OGTT. Screening for type 2 diabetes is carried out to all persons, without exception, who have reached the age of 45, regardless of the presence or absence of risk factors for developing type 2 diabetes. If the test result is normal, the examination frequency is once every 3 years. Persons younger than this age with a BMI >25 kg/m² are also required to undergo screening if they have at least one risk factor for developing this disease. If the test result is normal, the frequency of examination is once every 3 years, in persons with prediabetes - once a year.

Conclusion. However, in real practice, this routine diagnostic standard is not always met, and widespread screening for hyperglycemia (often examined with a glucometer) and hypercholesterolemia has gradually replaced the concept of screening for diabetes. To provide timely assistance, it is especially important to identify a patient at the stage of prediabetes. The concept of “prediabetes” includes conditions such as IFN and IGT. The use of this term emphasizes the high risk of developing diabetes mellitus in the future (approximately 4-9% of cases per year). Patients with prediabetes already have a 1.5-fold increased risk of developing cardiovascular diseases, and in patients with diabetes this risk is increased by 2-4 times.

References:

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