



ASPECTS OF PRIMARY AND SECONDARY PREVENTION OBESITY AND DIABETES

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ABSTRACT

Today, the Schools of Diabetes have notable successes in terms of secondary prevention of diabetes, however, the primary prevention of diabetes and obesity is not well understood. So the aim of our work is to study the effectiveness of primary prevention of diabetes and obesity. A significant difference was found between the average level of glycated hemoglobin in patients with diabetes mellitus (7.4%) and non-compliant (8.9%). The effectiveness of diabetes treatment depends on the normalization of body weight: in obese non-compliant people decompensated hyperglycemia (8.2%) occurs 4 times more often. The studies allow us to conclude that without the normalization of lifestyle and nutrition, no treatment methods can bring the desired result, it is impossible to solve the problem of obesity and diabetes without vigorous primary prevention of these diseases. It is necessary to achieve mass correct eating behavior in healthy people; and the compliance of diabetes patients with dietary nutrition and their involvement in resolving diabetes problems.

KEY WORDS: diabetes, obesity, nutrition, prevention of diabetes

INTRODUCTION

Obesity (O) and diabetes mellitus (DM) are diseases of the 21st century that entail innumerable serious complications. According to I.I. Dedov et al.[9], 5-7% of the world's population suffers from diabetes, and the number of patients is steadily increasing; as is the number of obese people; in some regions their number reaches 30-40%. According to the Expert Commission on the diagnosis and classification of diabetes [7], the incidence is increasing in all age and ethnic groups ...At the same time, 5 out of 17 million patients do not know that they have diabetes. A further increase in the number of overweight people is predicted: by 2025, 40% of men and 50% of women will suffer from obesity. O. - the most significant risk factor for the development of S.D. 2 types [5]. About 80 - 90% of patients with type 2 diabetes are overweight. O. promotes the formation of insulin resistance and compensatory hyperinsulinemia. It is known that these diseases are associated with overeating, physical inactivity, severe endocrine or other

concomitant diseases. A key factor in obesity is excessive fat intake. Excessive food leads to a violation of the synthesis and proper action of insulin, a change in the activity of the vascular system, a deterioration in the functioning of the heart and kidneys due to increased sodium reabsorption. The number of obese people with diabetes mellitus and having high blood pressure is increasing day by day.

It is recognized that proper nutrition and sufficient physical activity can prevent the development of type 2 diabetes, however, the population still continues to consume saturated fats and sweets in huge quantities and even when diagnosing diabetes or other complications of obesity, a person does not always follow a diet[6], believes bread units, glycemic index, etc[3,4]. Effective medicines exist for the treatment of obesity and diabetes mellitus, however, without treatment of the decisive nutritional factor, no treatment methods (medication, surgical) can bring the desired result. Today, the Schools of Diabetes [8] have notable

successes in terms of secondary prevention of diabetes, however, the primary prevention of diabetes and obesity is not well understood.

The aim of our work is to study the effectiveness of primary prevention of diabetes and obesity

TASKS

1. Using glycated hemoglobin[2], tested by all who applied to the family clinic of the city of Urgench, examine the number of deviations of glycemic data for this contingent. Analysis of laboratory studies and work with patients with deviations in the analysis
2. The study in a comparative aspect of the effectiveness of drug treatment in patients with diabetes mellitus and obesity against the background of compliance and non-compliance with the diet. Analysis of the compliance of patients who already had diabetes
3. The study in a comparative aspect of the effectiveness of the non-drug approach to the primary prevention and treatment of obesity among the teaching staff of the Urgench branch of TMA

SURVEY AND RESULTS

An endocrinologist examined 82 patients who applied to the city family polyclinic of the city of Urgench for six months. Clinical and laboratory tests (measurement of fasting glycemia and glycated hemoglobin - HbA1c) were performed, and BMI was measured. All patients with deviations in weight and glycemic data were questioned to study the patient's attitude to his overweight and detected diabetes. Among the applicants were 65 patients with already diagnosed diabetes, and they were allocated in a separate group. Both among diabetics and among the obese, a conversation was held about proper nutrition. According to our research, more than a quarter of Urgench residents (25.9%) have excess normal weight, including 45.5% women and 54.5% men. In terms of severity, 44% of women and 50% of men are overweight, and 56% of women and 50% of men

suffer from O., moreover, 14.3% of women and 26.7% of men have a pronounced form of O. (III degree), and the rest - O. I-II degree. As an analysis of the study of applicants shows, 89% of them have diabetes mellitus or impaired glucose tolerance at the first treatment, 79% have hypertension, 1,2,3 stages, 60% hypercholesterolemia and hypertriglyceridemia, and visceral O. which has the worst prognosis for life and patient health, detected in 91%.

A total of 65 patients with diabetes mellitus were examined, which are divided into people with normal (BMI - 18-24) and increased (BMI - 24-30) body weight. Patients were selected who, using drug-based oral sugar-lowering therapy, adhered to dietary recommendations (17 patients - 26.1%) and compared with those who were not committed to diet therapy (48 patients - 73.9%), but were treated with the same drugs.

On the day of treatment, glycated hemoglobin was examined in all patients. Considering that the requirements for compensation for carbohydrate metabolism are different for people of middle and old, senile age, we selected middle-aged men and women. A survey was conducted to detail the concept of proper nutrition and diet. According to the results of the survey, patients are divided into 3 groups. The first group includes those who are informed and committed to normalizing lifestyle and nutrition; the second - those who have no idea about the diet for diabetes; the third - patients with diabetes, trained at the diabetes school, informed about the diet, but not committed to compliance. However, even trained patients had very vague ideas about calculating nutrition. None of them had a clue about bread units and glycemic index [3]. It turned out that in the first group, the average level of glycohemoglobin averaged 7.4%, in the second - 8.9%, in the third - 8.2%. A particularly sharp difference is noticeable in the results of prandial glycemia, which in the first group averaged 7-8.5 mmol / l, in the second - 10-11 mmol / l, in the third - 9-10 mmol / l. The results of the study are shown in the table.

Table 1. The result of investigation of Influence of level HbA1c from pathients complaints

Middle level HbA1c	Total patients (n = 65)	BMI - 24-30 (n = 33)		BMI - 18-24 (n = 32)	
		M. n=17	F. n=16	M. n=16	F. n=16
7,4%	Dieted	3	4	8	10
8,9%.	Those who have no idea about the diet "want to observe, but do not know how"	8	5	5	5
8,2%.	Uncompliant to normalize nutrition: informed, but not dietary	6	7	3	1

M. – Men, F.- Women

As we can see from the table, the best result (according to WHO recommendations, the average level of HbA1c should normally be less than 6.5%, in the compensatory stage to 7.5%), 25 (38.4%) patients with diabetes achieved a normalization of their diabetes nutrition, 11 men and 14 women, whereas in 17 (26.2%) patients of group 3, the average level of glycated hemoglobin was 8.2%. The worst result in normalizing blood sugar in 23 (35.4%) diabetics uninformed about diet therapy. The results of the survey revealed the following: trained patients with diabetes mellitus not only strive to normalize glycemia, but also body weight: among the examined patients of the first group there are 2.7 times more people with normal body weight, while among non-compliant people they are 4.3 times more obese. The survey showed a gender difference in adherence to diet therapy: 11(44%) men and 14 (56%) women recognize dietotherapy as one of the main treatment methods, while among the non-compliant overwhelming majority 11 men (56.5%), which is 2.2 times higher than the number of uncompensated, non-compliant women.

To compare the nutritional behavior of diabetics and people without impaired carbohydrate metabolism, a group of teachers (96persons) of UV TMA was examined. Among the examined 84 (87.5%) employees had normal weight (BMI - 18-24.9), and 12 (12.5%) showed an increase in BMI. According to the age composition, teachers are divided as follows: group 1 - 7 men and 25 women of young age (up to 45 years), the second group of 14 men and 32 women of middle age (45-60 years), the third group - 7 men and 8 elderly women (60 -65 years old) and the fourth group - senile age (above 65 years) - one woman and two men.

All 12 examined obese patients showed an increase in blood pressure: 1 degree in 7, a second degree in 4 and a severe third degree in one teacher. An increase in blood sugar was found in three; moreover, one of them was diagnosed with diabetes a year ago, and for the other two hyperglycemia was a complete surprise. All 12 obese respondents were informed about the dangers of obesity, but only 6 of them (50%) sought to normalize their nutrition and lifestyle. Among overweight people, the overwhelming majority were teachers of the middle-aged group (8 - 66.6%), one of them (8.03%) was the elderly and three (25.37%) were young.

The gender difference of the subjects was studied. It turned out that 66 (68.7%) women and 30 (31.3%) men participated in the survey. A large group consisted of teachers 84 (87.5%) with normal body weight, and not one of them, judging by the questionnaire, thought about healthy proper

nutrition. In terms of age, most of them (90%) are classified as young people.

CONCLUSIONS

Our work has clearly demonstrated that the detection rate of obesity and diabetes among the population of Urgench is quite high 12.5% of employees of the Urgench branch of TMA are obese and only 6 teachers (6.2%) are committed to a healthy diet. Older people are more committed to a healthy lifestyle than young, none of which, judging by the questionnaire, does not consider it necessary to pay special attention to proper nutrition.

Our work clearly demonstrated that 60% of people with diabetes are not committed to dieting, but even among 75.7% of compliant patients there is no exact concept of therapeutic nutrition, which makes the prognosis of diabetes pessimistic.

A significant difference was found between the average level of glycated hemoglobin in patients with diabetes mellitus (7.4%) and non-compliant (8.9%).

The effectiveness of diabetes treatment depends on the normalization of body weight: in obese non-compliant people decompensated hyperglycemia (8.2%) occurs 4 times more often

The formation of proper nutrition turned out to be the most difficult for all obese, regardless of gender, age, nationality and education.

Thus, the studies allow us to conclude that without the normalization of lifestyle and nutrition, no treatment methods [1] can bring the desired result, it is impossible to solve the problem of obesity and diabetes without vigorous primary prevention of these diseases. It is necessary to achieve mass correct eating behavior in healthy people; and the compliance of diabetes patients with dietary nutrition and their involvement in resolving diabetes problems.

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