

Clinical And Hormonal Characteristics of Osteoporosis in Patients With 2- Type of Diabetes

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ABSTRACT

Arterial hypertension is a strong and variable risk factor for the development of macrovascular and microvascular complications of diabetes. Patients with diabetes mellitus belong to the group with a high and very high risk of developing cardiovascular complications and chronic kidney diseases. The combination of type 2 diabetes and hypertension dramatically increases the risk of developing terminal stages of microvascular and macrovascular diabetic complications, blindness, end-stage chronic kidney disease, amputation of legs, myocardial infarction, cerebral strokes, worsens prognosis and quality of life.

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During our study, 60 patients with type 2 diabetes were examined, of whom men (38), women (22), average age (45-55). The first group - (30) patients with QD type 2, but without concomitant arterial hypertension, were examined as a control and comparison. The second group - (30) as a control and comparison, patients with QD 2 type, patients with arterial hypertension 1-2 degree were examined. In group 1 patients, the degree of severity was determined based on the amount of glucose (8.9) and the amount of glycated hemoglobin (7.5). In patients of group 2, an increase in KFT was detected with an increase in blood pressure, and a correlation of blood pressure of 140/100 was found, and the level increased to 140-150, which indicated nephropathy against the background of hyperglycemia. The duration of QD was 1-10 years, the duration of AG was 1-8 years. Biochemical studies include total blood, urine, fasting glucose, glycemic profile, glycated hemoglobin, cholesterol, creatinine, assessment of glomerular filtration rate in all patients.

Biochemical studies of blood were carried out in the RIEIATMSF laboratory named after Academician Y.Kh. Torakulov. It was conducted using laboratory kits from the company "Immunotech".

Results and their discussion. All patients were on hypoglycemic therapy. Group 1 - patients without AG with type 2 QD received drugs of the SGLT-2 group, group 2 - patients with type 2 diabetes with arterial hypertension in combination with APF inhibitors SGLT-2 they took their medication. According to our study, after combined therapy with SGLT-2 drugs and APF inhibitors, it was found that the biochemical blood test parameters improved in patients with arterial hypertension and type 2 diabetes. We reduced the number of patients.

High blood glucose levels are the first symptom of diabetes. Pancreatic cells (beta-cells) are responsible for the production of insulin in the human body. It helps the cells absorb glucose. In diabetes, insulin is produced in small amounts, and the amount of glucose in the blood increases. However, because glucose cannot be absorbed without insulin, there is a glucose deficiency in the cells. This metabolic disease can be hereditary or acquired. Due to lack of insulin, secondary pathologies such as the appearance of purulent and other diseases on the skin, damage to the teeth, kidney, nervous system, atherosclerosis, angina pectoris, glucometer, tespaloska, glucometer pen, development, vision impairment are observed.

Discussion And Results

Reasons for the development of diabetes: Genetic predisposition to diabetes is now proven. Type 1 diabetes is characterized by genetic heterogeneity, which means that the disease can be caused by different groups of genes. Detection of antibodies to pancreatic β -cells in the blood serves as a laboratory-clinical indicator in the diagnosis of type 1 pathology. The nature of the transmission from generation to generation has not been fully studied. The pathogenetic basis of diabetes depends on the type of disease. Two fundamentally different types are distinguished. Although modern endocrinology calls the classification of the disease conditional, it is important to determine the treatment strategy in each of its types.

The most important basis of the problem is a violation of the interaction of insulin with the tissue. Glucose is needed by the body as the main energy substrate for the continuation of vital processes. Failure of glucose to pass to the tissues, failure of glucose to be stored as glycogen in the liver causes its amount in the blood to increase. These changes are called diabetes. Any hyperglycemia is not considered true diabetes. Changes that occur only under the influence of insulin are considered such a disease.

Pathogenesis: insufficient production of insulin by the endocrine cells of the pancreas. Violation of the interaction of insulin with body tissue cells (insulin resistance). The reasons for this are: a change in the structure or decrease in the amount of special receptors for insulin, a change in the structure of insulin itself, a violation of the mechanism of transmission of signals from receptors to organelles in cells. As mentioned above, diabetes can be passed from parents to children. If one of the parents is infected with this disease, the probability of his offspring is 10% for type 1 and 80% for type 2.

Pancreatic insufficiency (type 1 diabetes). The old name is insulin-dependent diabetes. Often young people, under 40 years old, thin people suffer. The disease is severe, insulin is given for treatment. The initial process in the development of this type of diabetes is massive destruction of pancreatic endocrine cells (Islets of Langerhans). As a result of this, the amount of insulin in the blood decreases sharply.

In humans, this disease is genetically determined and caused by a defect in a number of genes located on 6 chromosomes. These defects increase the autoimmune aggression of the body to the cells of the pancreas and have a negative effect on the regenerative ability of β -cells. Provocative factors can also be long-term hypoxia of pancreatic cells, a diet rich in carbohydrates and fats and low in protein. This leads to a decrease in the secretory function of the cells and eventually to their death. After the massive death of cells, the mechanism of their autoimmune damage is activated. Type 1 diabetes cannot be completely cured, but in some cases, if the activity of the gland is kept in the normal range and the diet is followed, the disease does not cause too much trouble. It is necessary to take artificial insulin on a regular basis. Since insulin is broken down in the gastrointestinal tract, it can only be administered by injection. Following a strict diet, easily digestible carbohydrates (sugar, sweets, fruit juices) should be completely excluded from the diet.

Extrapancreatic insufficiency (type 2 diabetes). The old name is non-insulin-dependent diabetes. Most often, older people, suffering from obesity (the main risk factor, excess body weight is noted in 80% of patients), people over 40 years old are sick. As a result of a change in the structure of the receptors or a decrease in their number, they cannot be affected by the hormone. Also, sometimes the structure of the hormone itself can change (genetic defects). In addition to obesity, risk factors for type 2 diabetes include: Older age; smoking; alcohol consumption; arterial hypertension; chronic overeating; low activity lifestyle. It has been proven that there is a genetic predisposition to type 2 diabetes. This is indicated by the 100% concordance of the presence of the disease in homozygous twins. Insulin is not always needed to treat the disease. Only a qualified doctor can determine the course of treatment. First of all, such patients are prescribed a diet. It is important to follow the doctor's advice. It is recommended to gradually reduce the body weight by 2-3 kg per month until it reaches the norm. In the case of non-compliance with the diet, blood sugar-lowering drugs are prescribed, and in the most severe cases, insulin.

Weight loss is especially characteristic of type 1 diabetes. It occurs due to the active catabolism of proteins and fats, since carbohydrates do not participate in the energy exchange of cells. There are also secondary symptoms of the disease. They develop gradually and are characteristic of any type of diabetes. Persistent dry mouth, weight loss or sudden weight gain, severe itching and dryness of the skin, pus-filled sores on the skin and soft tissues, muscle weakness and excessive sweating, difficulty healing any wounds, vision disorders, headache, decreased circulation and mental activity, heart pain, enlarged liver, pain in the legs and

impaired walking, decreased sensitivity of the skin, especially in the legs, ulcers, increased blood pressure, face and leg swelling, acetone smell from the patient.

Diagnosis: If a disease is suspected, it must be confirmed or denied. There are a number of laboratory and instrumental diagnostic methods for this, and with the help of these analyzes the disease can be accurately diagnosed. They include: determination of glucose in the blood while fasting, glucose sensitivity test to compare the blood glucose in the fasting state and two hours after eating, glycemic monitoring to analyze the blood sugar several times during the day. It is used to study the effect of treatment, to check the presence of glucose, protein, white blood cells in the urine, to check the presence of acetone in the urine, to determine the amount of glycosylated hemoglobin in the blood, biochemical analysis of the blood, to determine the endogenous insulin in the blood, ECG - damage to the myocardium caused by diabetes detection, UTT, capillaroscopy, etc. to study the level of damage to blood vessels. All patients with diabetes should consult the following specialists. Endocrinologist, cardiologist, neurologist, ophthalmologist, surgeon.

Conclusion: according to the data of our work, the high clinical efficiency of the combined approach to the appointment of hypoglycemic and antihypertensive therapy with SGLT-2 drugs and APF inhibitors, taking into account the principles of chronotherapy SGLT-2 and APF inhibitors, depending on the level of blood pressure and glycemia (patients 89.6% had a good antihypertensive effect, including 67.2% of patients achieved the blood pressure target). Also, our research has shown that the combined therapy of SGLT-2 drugs and APF inhibitors improves organ function, stabilizes blood pressure, and prevents the development of cardiovascular complications.

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