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Diabetes mellitus and its causes and treatment.

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Abstract: This article provides information about diabetes mellitus and its causes and treatment.

Key words: Diabetes, blood sugar level, insulin hormone, glucose, sugar level, dry mouth and rapid fatigue.

Diabetes or diabetes is a metabolic disorder characterized by changes in the amount of sugar in the blood. The hormone insulin is responsible for using the sugar in the blood as energy or storing it as a reserve. In diabetes, the body cannot produce enough of the same insulin hormone or use it effectively. As a result, the amount of sugar in the blood increases from the norm, and various pathological conditions occur in the eyes, kidneys, nerves and other important organs.

Diagnosis of diabetes

If the symptoms of the disease are felt, it is necessary to determine the presence or absence of diabetes. For this, several laboratory and instrumental tests should be conducted.

Determination of blood glucose. After 8 hours of fasting, fasting blood glucose levels are checked.

Glucose sensitivity test. Glucose levels in the blood are compared in the fasting state and two hours after a meal.

Glycemic monitoring. Analyzing the amount of sugar in the blood several times during the day. It is used to study the effect of treatment.

The presence of glucose, protein, white blood cells in the urine is checked.

The presence of acetone in the urine is checked.

The amount of glycolyzed hemoglobin in the blood is determined.

Biochemical analysis of blood.

Scientists say that diabetes consists of five different diseases, and each of them requires different treatment.

The results of the study were published in The Lancet Diabetes and Endocrinology. The study found that diabetes can be divided into five different clusters.

Cluster 1 - severe autoimmune diabetes has almost the same characteristics as the first type - it also begins to develop when patients are young, and over time the process of insulin production in the body goes out of control, but the patient is healthy until the disease worsens appears;

Cluster 2 - patients with severe form of diabetes mellitus due to insulin deficiency appear healthy at first, like those in the first cluster - they have a normal body weight, and it is difficult to determine that they have the disease from the outside. Although insulin production is impaired, the immune system does not fail completely;[5]

Cluster 3 - severe insulin-resistant diabetes occurs in people who are overweight. Insulin production in the body of patients with this disease is normal, but the processes in the body do not obey the control of excess insulin;

Cluster 4 - obesity-related mild diabetes occurs more often in overweight people, but the condition of such patients is metabolically better than those in cluster 3;

Cluster 5 - mild age-related diabetes symptoms occur mainly in older people, but they tend to do better than patients in other clusters.[4]

One of the researchers, Professor Leif Grupp, told the BBC that this study is a major step towards a drastic improvement in medical accuracy. we will have a chance."

"We tend to fight the three severe forms of diabetes more aggressively than the other two mild forms," says Grup.[3]

According to experts, the type of diabetes in the second cluster has almost the same character as the second type that has been known to medicine so far. However, the cause of diabetes in this cluster is not a problem

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of excess fat accumulation in patients, but a defect in insulin-producing beta cells. Such patients can be treated in the same way as those with type 1 diabetes.

The tendency of patients in the second cluster to blindness, and to kidney failure of patients in the third cluster was also determined during the study.

We need to make it easier to treat, prevent, diagnose, and diagnose this disease. As a result of the complications of diabetes mellitus, the failure of internal organs occurs. Diabetes mellitus is a group of endocrine diseases associated with impaired glucose absorption and a relative or absolute deficiency of the insulin hormone. As a result, there is a constant increase in the amount of sugar in the blood. The course of the disease is chronic, as well as it It is characterized by a violation of carbohydrate, fat, protein, mineral and water-salt metabolism. [2]

Summary:

The disease is classified according to the degree of severity. At the first level of the disease, the amount of sugar in the blood is completely covered by insulin, and other indicators are normal. There are no developed pathologies against the background of the disease, no complications are observed. Such a result is achieved by fully following the course of treatment and following a diet. In the second level of the disease, visual activity, kidney, cardiovascular and nerve fibers are damaged. In the third level, active development of the disease is observed. The amount of glucose in the blood is around 3-14 mmol/l, high proteinuria is observed, the damaged organs gradually begin to show symptoms. Visual acuity decreases, hypertension is observed, sensitivity in the legs and fingertips decreases. Absolute decompensation is observed in the 4th degree of diabetes. The amount of glucose rises to a serious level, and attempts to lower the amount of sugar are ineffective. Protein excretion through urine becomes more active. Kidney failure occurs, skin ulcers and gangrene may occur. The risk of falling into a coma is very high. According to the results of the analysis, as people age, the amount of glucose in the blood increases. In addition, it was found that women are more prone to diabetes than men. The earlier the disease is diagnosed, the easier it is to treat it. For this reason, it is recommended that older people undergo frequent medical examinations to keep blood glucose levels under control.

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