

Neonatal diabetes mellitus

Type 1 Diabetes Mellitus arises because the body begins to see an enemy in our *beta-cells* and begins to destroy them with white blood cells. Therefore, type 1 diabetes is classified as an **autoimmune disease**.

Type 1 diabetes mellitus

Currently, the disease is incurable, but it can be treated with lifelong administration of **insulin**. The beta-cells in the islets of the pancreas stop producing insulin, so excess glucose is not stored in the liver. Glucose therefore circulates in the blood in large quantities and the value of glycemia is high. Cells cannot obtain the necessary energy from glucose. What is missing is insulin, which can open the cells for glucose. If insulin is missing, the cells remain closed. Diabetes mellitus can occur at any age, but is very rare in newborns, infants, and toddlers.

Neonatal diabetes

It manifests itself in the first days of a newborn's life. It is very rare, but also interesting in terms of its cause and course. Neonatal diabetes may resolve after a few weeks of treatment and then insulin treatment is discontinued. It may reappear later in the child's life. It is most likely caused by an inborn deviation of the metabolism, which lasts a lifetime.

Diabetes in infancy

An infant may develop true type 1 diabetes, when the baby begins to gain weight and often urinates in the diaper. Diaper urine is noticeably light in color and can be sticky after drying, which is due to the high glucose content. In the first year of life, long-acting (depot) insulin is administered, because if small doses were administered, a significant drop in blood glucose could occur. A diabetic infant has the same diet as a healthy infant, only their tea is sweetened with **beet sugar**.

Diabetes in the toddler

Diabetes is more common in toddlers than in the first year of life. If diabetes occurs at this age, a psychologically sensitive approach is needed, because it is during the child's developmental period that he begins to form an idea of the world and realize his individuality. They must accept the existence of diabetes and the associated treatment. Diabetes in preschool and school children does not differ significantly. It is recommended to always administer insulin with a prolonged effect, preferably in the morning and in the evening, faster-acting insulin is given with the main meal.

Symptoms of diabetes in children

Diabetes in children usually does not manifest immediately, it can be hidden for months or years. As beta-cells begin to be destroyed in the body, a person becomes more vulnerable, and when the number of beta-cells reaches a critical limit, this can only be manifested. When sick, a person needs more insulin, if a child gets sick with flu or angina, the body will show a lack of insulin and also the first signs of diabetes.

If the child does not suffer from the disease, diabetes will manifest itself in the near future. The body begins to get rid of excess glucose by releasing it into the urine, and the excess glucose takes water with it, which manifests itself in excessive urination. Smaller children may start urinating again at night.

Without insulin

Without insulin, large fluid losses occur, which induce thirst. The body begins to lose a large part of what was taken in food and begins to lose weight. The child is tired, inefficient and very sleepy. If these symptoms are overlooked, blood sugar continues to rise and the body tries to find an alternative source of energy. Therefore, it starts to use fats, when **ketones** are created in the body. If the body is acidified by ketone bodies, it is called *ketoacidosis*. In ketoacidosis, vomiting begins to occur and symptoms of severe dehydration appear. Acidic wastes begin to build up in the body and together with dehydration this leads to **diabetic coma**.

Treatment of diabetes mellitus in young children

Insulin injections and a prepared meal plan are used as a basis. In the treatment of diabetes, an examination at the doctor's office, as well as at home, is necessary. Glycosuria and ketonuria are also investigated in the home environment. The child's height and weight and blood pressure are also checked.

Links

Related Articles

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References

Muntau Ania Carolina. . *Pediatric : Překlad 6. vydání.* - edition. Grada Publishing, a.s., 2014. 608 pp. ISBN 8024745887.