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METHODS TO PREVENT ANEMIA IN DIABETIC PATIENTS AND A MODERN APPROACH TO TREATMENT

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Abstract
Diabetes mellitus is a chronic disease that develops when the pancreas does not produce enough инсулин (in this case, we are talking about type 1 diabetes mellitus) or the body does not work effectively on the инсулин produced (respectively, this variant characterizes type 2 diabetes mellitus). As you know, инсулин is produced by beta cells of the pancreas. Its most important function is to participate in carbohydrate metabolism. With the help of this hormone, the pancreas regulates the level of glucose in the blood, as инсулин delivers glucose to the cells, thereby contributing to a decrease in blood sugar levels. There are no genetically determined forms of diabetes and hereditary predisposition. In this article, the classification of diabetes mellitus includes the separation of type 1 and type 2 diabetes, gestational diabetes, as well as other specific types of diabetes, the introduction of other specific types, for example, juvenile Modi-diabetes; genetic аbнормалities due to impaired function of инсулин receptors; various endocrinopathies; information about the course of diabetes mellitus and chronic anemia on the background of chronic pancreatitis.

Keywords: diabetes mellitus, инсулин, anemia, glucose.

Relevance

Anemia (anemia) is a worldwide medical and social problem that affects a significant part of the population [2]. According to the World Health Organization (who), anemia is diagnosed in every fourth person – 24.8% of the world's population (~1.62 billion people) [5]. One of the main causes of anemia is iron deficiency in the body, which is mainly associated with an unbalanced diet - insufficient intake of foods containing iron and other trace elements.

Another important etiology for the development of iron deficiency anemia (TTA) is the presence of chronic blood loss in various localizations (gastrointestinal tract, reproductive system in women, etc.) [1]. Anemia is most common in preschool children (up to 5 years old), pregnant women (age does not matter) and the elderly (60 years old). [7].

The prevalence of anemia in the Russian Federation among non-pregnant women between the ages of 15 and 50 is 19.8%, comparable to the same rate in Belarus (19.4%), Poland (18.7%), Estonia (17.7%). [8], although some authors cite high numbers-up to 51% [4]. However, in developed countries of

Europe, the incidence of anemia in this population group is 2 times lower-8.8% in the United Kingdom, 9.1% in France and 12.3% in Germany, which indicates a correlation of the level and quality of life. with the state of Public Health [9].

Many common chronic diseases (rheumatic, tumor and Infectious) are accompanied by a decrease in the value of HB, the pathogenetic mechanisms of which are closely related to the immune inflammatory process that affects erythropoiesis. With this in mind, the terminology "chronic 17 disease anemia" (ahz) has recently been introduced, which combines these anemia [3].

Currently, it is of particular interest that the effects of diabetes as a chronic ongoing disease negatively affect all processes that occur with the formation of severe micro - and macro-vascular complications in the body, the development of anemia syndrome, in the absence of compensation. It is believed that the presence of hyperglycemia at the present stage is one of the important and underestimated risk factors for the development of anemia, directly or indirectly affecting the most important physiological processes that maintain the normal level of Hb. [6]. According to the IDF, the number of patients with diabetes mellitus in Europe from 59,8 million people (in 2015) can increase to 71,1 million people by 2040-due to the study of the features of diabetes anemia syndrome is very relevant for the worldwide epidemic [1].

Research Objective

Study of the mechanisms of prevalence and formation of anemia syndrome in diabetes mellitus.

Research Materials and Methods

50 people were examined to study the prevalence and severity of anemia in patients with Type 1 and type 2 diabetes. Of these, patients with Type 1 diabetes accounted for 37 people, patients with Type 2 diabetes - 13 people.

Research Results

In the group of examined patients living in the Andijan region, a decrease in hemoglobin levels was found in 2% of patients with Type 1 and Type 1 diabetes mellitus, which, according to other studies in Uzbekistan in general, does not differ from the prevalence of patients with Type 1 diabetes (20%). In 86% of cases of mild violence in diabetics, anemia is normochromic in 63%, normocytic in 56%, and normoregenerative in 86%.

In patients with Type 1 diabetes, iron deficiency anemia accounts for 54.8% of all cases of anemia syndrome, while anemia of chronic diseases accounts for 23.6%. Folic acid deficiency occurs in 1% of patients with type 37.7 diabetes mellitus, regardless of the stage of diabetic nephropathy. Vitamin B12 deficiency is detected more often (4.3%) than in the population (0.1%). Anemia syndrome occurs in 32.2% of patients for various reasons. In patients with Type 1 diabetes with chronic disease anemia, GFR levels are lower than in patients with Type 1 diabetes with iron deficiency anemia.

Disorders are observed in patients with Type 1 diabetes mellitus with anemia of chronic diseases unlike patients with iron deficiency anemia, with symptoms of renal cytomembrane elimination, the reabsorption function of the renal ducts is impaired. As the duration of diabetes increases in the presence of anemia in patients with Type 1 diabetes, the decrease in GFR is much more noticeable and faster than in patients with Type 1 diabetes with normal hemoglobin levels. In patients with Type 1

diabetes mellitus with anemia, there are signs of impaired reabsorption function of the renal tubular apparatus for any duration of diabetes and even in the absence of clinical signs of diabetic nephropathy.

Conclusion

Diabetic of the kidney in patients with diabetes the high frequency of anemia syndrome in injuries is a close relationship between the development of anemia in diabetes mellitus and the severity of albuminuria with a decrease in GFR compared to patients with kidney pathologies without kidney damage and other etiology. Microvascular complications in the kidneys in the diagnosis of anemia in patients with Type 1 and type 2 diabetes (urine test for albuminuria and serum creatinine). When prescribing an APF inhibitor, it should be borne in mind that its regular consumption can lead to anemia in patients with Type 1 and type 2 diabetes with kidney damage, but not its exacerbation, which does not require a decrease in the therapeutic dose of the drug or its cancellation. In patients with Type 1 but without kidney damage, anemia may be accompanied by an incorrectly swollen Hba1s value, which should be taken into account when interpreting glycemic control data for diabetes.

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