

GHRELIN AND FEATURES OF THE COURSE OF GASTROESOPHAGEAL REFLUX DISEASE WITH COMORBID TYPE II DIABETES MELLITUS IN PATIENTS OF YOUNG AGE

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Today, the pathology of the digestive system remains one of the most pressing problems of modern medicine. One of the most common diseases of the digestive system is gastroesophageal reflux disease. Scientists pay much attention to the biochemical and molecular mechanisms that underlie these pathologies. The prevalence of pathology reaches 25% among all adults, and there is also a pronounced tendency to its further growth with an annual growth rate of about 5% and there is a tendency towards rejuvenation of pathology last years.

The increasing relevance of this problem is associated with the clinical significance and widespread prevalence of the disease worldwide, which amounts to 40-60% in Eastern Europe, with esophagitis found in 45-80% of patients and in 20-30% in patients of young age.

One of the most common concomitant GERD pathologies is diabetes mellitus. Moreover, GERD is more common in type 2 diabetes compared with type 1 diabetes (31.1% compared to 19.6%), and decompensation of carbohydrate metabolism in the form of ketoacidosis contributes to this development. One of the features of the course of GERD in patients with diabetes is the slightly or asymptomatic nature of the clinical picture, which is caused by the formation of polyneuropathy, which leads to a decrease in pressure of the lower esophageal sphincter (hyperglycemia increases the time of “transitional relaxation”), a decrease in the amplitude and frequency of peristaltic waves, and an increase in asynchronous and ineffective waves of esophageal contractions, delayed gastric secretion. Considering that more than 75% of patients with type 2 diabetes are overweight, one should pay attention to the fact that this category of patients is prone to the development of frequent episodes of reflux in comparison with patients with normal body weight.

Type 2 diabetes mellitus significantly modifies the pathogenesis of GERD, its clinical course, and that in turn affects the course of the pathogenesis and clinical picture of diabetes mellitus, which, in turn, is reflected in the treatment of both diseases. This is due to a change in the rhythm of life, urbanization, late seeking medical care among young people, so we need to use modern methods of complex diagnostics, the appointment of adequate and differentiated therapy, which can significantly improve the prognosis of the clinical course of diseases,

improve the quality of life of patients, which allows to solve the medical and social component of this problem.

Noteworthy is the fact that today a large number of issues related to the formation of this comorbid pathology remain not fully understood and not disclosed. This explains the lack of perfect diagnostic methods and therapeutic tactics for such patients, which requires further study.

One of the hormones, which in recent years has been given an important place in metabolic disorders, is ghrelin. He plays an important role in the pathogenesis and clinical course of this comorbid pathology. Changes in the level of this hormone along with oxidative stress are some of the triggers for the formation of GERD in combination with type 2 diabetes. Ghrelin also contributes to exacerbating the clinical symptoms of each disease.

It has been shown that ghrelin concentration decreases during various metabolic processes, including type 2 diabetes mellitus. This hormone plays an important role in the regulation of the functions of the organs of the gastrointestinal tract. The development of postprandial hyperglycemia is also affected by the fact that the concentration of ghrelin decreases, which leads to a slowdown in gastric emptying, which is one of the pathogenetic links in the development of GERD and type 2 diabetes. Ghrelin also plays a role in the metabolism of glucose and insulin, therefore, a change in its blood level negatively affects the glycemic profile of patients, the clinical course and severity of the symptoms of type 2 diabetes.

All these facts worsen the quality of life indicators of patients with such a comorbid pathology, which leads to the formation of symptoms of anxiety, apathy, depression, as well as sleep disturbance and a change in patient appetite and satiety, which, in turn, aggravates the course of both GERD and Type 2 diabetes, so they require an integrated approach to the treatment of both pathologies.