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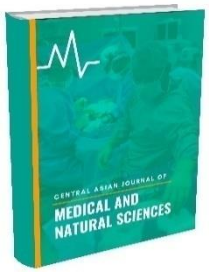

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Prognosis of Chronic Recurrent Aphthous Stomatitis

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Abstract: Relevance. Chronic recurrent aphthous stomatitis (CHRAS) is a serious problem in dentistry due to the increasing incidence. Great attention is devoted to somatic diseases that aggravate the course of CHRAS. In many cases, a combined allergic pathology is associated with damage to the digestive organs, which leads to the absorption of incompletely split food components, the formation of hypersensitivity to food. More often, food intolerance proceeds according to the mechanisms of pseudo-allergic reactions, so careful examination of patients and expert advice is an achievement in the treatment of patients with CHRAS. Studies show that to achieve a stable result in treatment, an individual selection of complex pathogenetic therapy is necessary, taking into account the patient's general somatic condition.

Key words: aphthous stomatitis, biogenic amine, pseudo-allergic reactions, histamine concentration.

Chronic recurrent aphthous stomatitis (HRAS) is one of the most frequent inflammatory diseases of the oral mucosa (SOPR), characterized by recurrent rashes of AFT with a long course and periodic exacerbations. According to a number of researchers Suleymanova D.M. and Chemikosova T.S., the incidence rate is 5% of all diseases of the oral mucosa. The age of most patients is 20-40 years. The causes of chronic recurrent aphthous stomatitis have not been definitively clarified. Meanwhile, some patients with recurrent aphthous stomatitis have been found to be hypersensitive to certain foods. So, in more than 80% of cases, combined allergic pathology is associated with damage to the digestive organs, which leads to the absorption of not completely split food components, the formation of hypersensitivity to food. The development of an allergic disease is facilitated by an increase in the level of histamine in the blood due to excessive intake or formation of histamine in the intestinal lumen against the background of the use of foods rich in histidine, tyramine and histaminoliberators (strawberries, strawberries, grapes, apples, peaches, apricots, plums, potatoes, tomatoes, cucumbers, carrots, bananas, green peas). Such products also include sauerkraut, young wine, beer, brewer's yeast, dough (yeast), hard cheeses, pickled fish, alcohol, as well as starch-rich foods that enhance fermentation processes in the intestine with further hyperproduction of histamine by intestinal flora [1.3.5.7.9.11.13.15.17.19.21.23.25.27.29].

More often, food intolerance proceeds through the mechanisms of pseudoallergic reactions (pairs). STEAM and true allergic reactions have similar clinical manifestations, but different mechanisms of

development. COUPLES differ from other food intolerance reactions in that, although the same mediators participate in their development as in true food allergies (histamine, leukotrienes, prostaglandins, other cytokines, etc.), they are released from the target cells of allergy in a non-immunological way. Among the mediators responsible for the development of symptoms of intolerance in couples, histamine plays a special role. Thus, the study of the level of histamine in the blood, as well as the activity of diamine oxidase in the blood in HRA will significantly expand the understanding of the pathogenesis, diagnostic capabilities, and improve the prevention and treatment of this disease. All of the above determined the purpose and objectives of this study.

The purpose of this study is to increase the effectiveness of treatment of patients with recurrent aphthous stomatitis based on the study of the level of biogenic amine and its inhibitor in the blood.

Material and methods of research. During the period from 2016 to 2018, 68 patients with HRAS were examined at the scientific and practical dental center at the Bukhara Medical Institute, 24 of them on the background of complex therapy, with the inclusion of probiotics, histamine and gepon. Verification of the diagnosis of HRAS was carried out in accordance with the generally accepted standard of diagnosis. The clinical symptoms of the disease, allergic anamnesis, allergological examination data, laboratory examination data (increased overall ID) were taken into account.

Also, the diagnosis was made only in the case of multiple episodes of clinical manifestations of allergies to certain foods. The method of determining DAO: the measurement of the concentration of diamine oxidase in blood serum was carried out by the enzyme immunoassay on the enzyme immunoassay analyzer COBAS-411 (ROSH). Histamine was studied from a deproteinized sample with organic solvents in the presence of NaOH and NaCl (for binding AK) with reextraction into acid. Identification of components was carried out by GC-MS method. To determine histamine, calibration solutions were prepared with concentrations of 0.1, 0.5, 1.0, 5.0, 10.0 ng/ml in 0.1 NS1. Histamine is eluted with 4 ml of 0.1 n. hydrochloric acid at a speed of movement of the eluting solution of 0.4 ml/min. The results were expressed in mmol/l. The research results were processed using the Student's "t" criterion [2.4.6.8.10.12.14.16.18.20.22.24.26.28.30].

Results and their discussion. After analyzing the questionnaires, the following clinical manifestations of intolerance to products with a high histamine content were revealed in patients of both groups. From the analysis of patient questionnaires, it can be seen that the most common symptoms that occur after consuming foods with high histamine levels are: flatulence.

As is known, food intolerance to histamine occurs when there is an excess or insufficient utilization of histamine by the body due to a deficiency of the enzyme diamine oxidase (DAO). DAO (diamine oxidase) is an enzyme that breaks down histamine mainly synthesized by cells of the small intestine (enterocytes), and to a lesser extent by other organs - the liver and kidneys. With a deficiency of the DAO enzyme, histamine coming from food is not utilized, which leads to histaminosis, which is clinically manifested by pseudoallergia. In turn, the low activity of the DAO enzyme is due to the insufficiency of the enzyme cofactor- copper, and its carrier in the blood is copper oxidase. To identify the role of the diamine oxidase coenzyme in the development of HRAS, we studied the activity of copper oxidase in the blood of patients with pseudoallergia.

As can be seen from the presented research results, the blood concentration of histamine in patients with HRA is increased by an average of 2 times. At the same time, the activity of histaminase in the blood of this contingent of patients was reduced by 3.2 times, when compared with a group of healthy individuals.

In this situation, an increase in the level of histamine in the blood, in our opinion, may be due to its release as a result of direct (non-selective, cytotoxic) and indirect (selective, non-cytotoxic, selective) exposure to liberator. At the same time, the nonspecific release of histamine leads to an increase in its

level in the blood. Some foods (fish, tomatoes, egg white, strawberries, strawberries, chocolate) can be attributed to histamine liberators in this situation. An increase in the level of histamine may be associated not only with its excessive liberalization, but also with violations of histamine inactivation. It is known that histamine inactivation occurs by its oxidation with diamine oxidase or monoamine oxidase. The processes of histamine inactivation in this situation are disrupted against the background of a decrease in the activity of diamine oxidase, which creates conditions for its injection into the blood from the portal system into the general bloodstream. An important role in this case is played by an increase in the permeability of the intestinal mucosa, which leads to the injection of histamine into the blood. It should be noted that excessive histamine formation is also possible with intestinal dysbiosis, due to intestinal microflora with decarboxylating activity.

An increase in the concentration of histamine both in the blood and in the oral fluid (our research) may indicate specific adaptive reactions caused by adaptation to a number of factors and tension of various body systems. And the function of histamine in this case is to expand the capillaries and increase their permeability for the release of various metabolites from the blood into the oral mucosa. An increase in the level of histamine occurs due to changes in the permeability of ion channels in the membrane of histamine-containing epithelial cells as a specialized protective reaction of the body.

It should be noted that an increase in the concentration of histamine in the blood and oral fluid is associated with a violation of the mechanisms of its inactivation and a low concentration of coenzyme-copper, the transporter of which is ceruloplasmin. The analysis of the research results showed a change in the level of ceruloplasmin in the blood of the examined individuals, in particular, a decrease in the initial values of the latter by 18% when compared with the indicators of healthy individuals. The study of the mechanism of histamine increase in the studied samples in HRA and familiarization with the literature sources allowed us to develop a method of therapy for the pseudoallergic condition in the examined individuals. The inclusion in the arsenal of probiotic therapy (bifudobactrim - 5 doses in the morning on an empty stomach), suprastin (suprastin 1 table 2-3 times a day) 0.01ml Gepon + 5ml NaCl 5-7days application, allowed to reduce the concentration of histamine in the blood and increase the activity of diamine oxidase in the blood against the background of an increase in the level of ceruloplasmin [21.23.25.26.27.28.30.31.32].

Consequently, the timely diagnosis of a pseudoallergic reaction is observed by us in the form of chronic recurrent aphthous stomatitis, which is an independent nosological form and is only a sign of the underlying disease caused by chronic intestinal disease. The inclusion of probiotics, suprastin, and gepon in the arsenal of therapy made it possible to stop the symptoms of the disease in a short time.

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