

CHRONIC RECURRENT APHTHOUS STOMATITIS ON THE BACKGROUND OF ACARID INFECTION

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Abstract. Helminthiasis, as a concomitant pathology of HRAS, has a tremendous effect on the oral cavity CO, intensifying the inflammatory processes in the soft tissues of the oral cavity, intensifying the complaints of patients with HRAS and leading to more frequent exacerbations. Moreover, they not only increase the frequency of exacerbations, but also increase the severity of the course of exacerbations.

Keywords: chronic relapsing aphthous stomatitis, helminthiasis, oral mucosa.

Introduction. Chronic recurrent aphthous stomatitis (HRAS) is an infectious pathology that occurs when three factors interact: the environment, micro- and macroorganisms [8]. HRAS is characterized by frequent recurrence of aphthae on OSR and with violation of the integrity of the epithelium, local inflammation and severe pain [6; 14].

In the 21st century, scientists say that 20% of the world's population suffers from aphthae at some point in life, most often from 20 to 40 years old. Before puberty, persons of both sexes are equally often sick, and in adulthood, women predominate [4].

Helminthiasis have an extremely negative effect on the intestinal microbiocenosis, which cannot but affect the microbiocenosis of the oral mucosa, as well as the absorption of vitamins, minerals and other essential nutrients from the intestines, which affects the body as a whole. Helminthiasis, of course, are not truly allergic diseases, but in their pathogenesis the allergic component is present in the main pathological process. Helminthiasis lead to frequent somatic pathologies and relapses of chronic diseases, affecting the host's immune system [2].

A distinctive feature of most of helminthic invasions is a chronic, latent course due to the long-term presence of the parasite in the body and repeated repeated infections. The waste products of helminths and the helminths themselves disrupt the normal biocenosis of the intestine, and due to the absorption of valuable nutrients by the helminths: proteins, carbohydrates, fats, vitamins and minerals, which disrupts the neurohumoral regulation of food absorption, which undoubtedly affects the microbiocenosis of the oral cavity, promotes growth shares of opportunistic and pathogenic microflora [2].

The aim of our study was to identify the features of the dental status in patients with HRAS against the background of helminthic invasion.

Material and research methods.

To accomplish the assigned tasks, we examined 97 CHRAS patients aged 23 - 46 years (average age 36.4 ± 3.3 years), of whom there were 43 men, 54 women. The average age of the observed men was $34.7 \pm 3, 1$ year, women - 39.2 ± 3.2 years.

All patients were divided into groups I and II (49 and 48 people, respectively). To the first group, we included patients in whom the presence of helminthiasis was revealed during the study. The distribution by types was as follows: Enterobiasis was detected in 27 people, which was 55.1%, ascariasis - in 15 (30.6%) patients, giardiasis was diagnosed in 7 (14.3%) patients. Also, in 8 subjects, the presence of two parasites was revealed, and in two patients, a combination of all the parasites presented was revealed.

Results and discussion If we examine in detail the duration of the HRAS disease among the examined patients, it can be seen that the patients of group I (the presence of helminthiasis was proven) had a more reliably ($P < 0.05$) longer course of the disease than those of group II. The average duration of HRAS in group I was 3.2 ± 1.1 years, and in group II - 2.5 ± 0.9 years. Thus, we can say with complete confidence that the long-term current HRAS (more than 5 years) suggests the presence of helminthic invasion in the patient. Therefore, a patient with a long-term HRAS (more than 1 year) should be prescribed a laboratory test by the dentist to identify or refute the presence of helminth invasion.

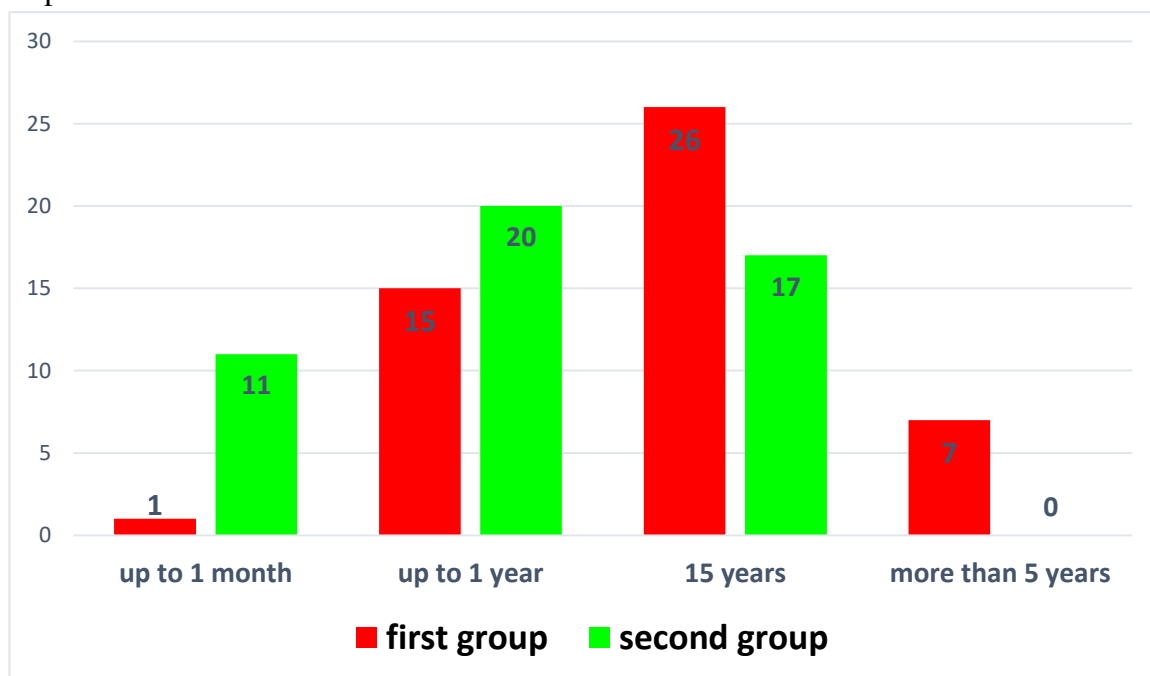


Fig. 3. Duration of HRAS by groups

In the presence of helminthiasis, the severity of the course of HRAS increases, so in patients with helminthiasis 85% have a moderate and severe course, and a severe course is observed in 34.7% of patients, while in patients without helminthiasis 62.5% have a mild course, and a severe course the course was ascertained only in 10.4%.

Table 1

The incidence of patients' complaints and indices in HRAS II group depending on the duration of the disease

Parameters	Длительность ХРАС							
	Up to 1 month (n=11)		1-12 months (n=20)		1-5 years old (n=17)		Total (n=48)	
	Abs	%	Abs	%	Abs	%	Abs	%
discomfort, pain when eating	11	100	20	100	17	100	48	100

the presence of "ulcers" in the mouth	10	90,91	17	85,0	16	94,12	43	89,58
dry mouth	1	9,09	1	5,0	1	5,88	3	6,25
swelling of the oral cavity	1	9,09	4	20,0	6	35,29	11	22,92
increased salivation	1	9,09	1	5,0	1	5,88	3	6,25
Complaints for the first time	5	45,45	10	50,0	11	64,71	26	54,17
The same complaints in the anamnesis	6	54,55	10	50,0	6	35,29	22	45,83
WTC INDEX (M ± □)	6,6 ± 0,6		7,8 ± 0,8		8,6 ± 0,7		8,2 ± 0,7	
OHI-S INDEX (M ± □)	0,8 ± 0,07		1,2 ± 0,05		1,6 ± 0,08		1,5 ± 0,06	
Index score of severity (IOT) HRAS (M ± □)	0,8 ± 0,04		1,2 ± 0,08		1,8 ± 0,07		1,4 ± 0,07	

From tables 2 and 3, the dynamics of complaints and their predominance, depending on the presence of helminths in the body and the duration of HRAS, are clearly traced.

As for the estimated indices, their dynamics, of course, is associated with an increase in the duration of HRAS, however, it is worth paying attention to the higher indicators of all indices in group I of HRAS patients with helminthiasis. This also confirms the effect of helminthiasis on the state of oral mucosa, the course and severity of exacerbations of HRAS in patients.

All of the above unwittingly pushes us to the conclusion about the aggravation of the course of HRAS in the presence of helminthic invasion.

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In group I patients, the average number of exacerbations was 6.2 ± 0.9 times a year, the median was 6 times a year, while in group II, the average frequency of exacerbations was recorded as 3.8 ± 0.7 per year, and the median equals 3 times a year (table 2). Accordingly, we can draw a conclusion about a more severe course of HRAS in group I and compare these data with the calculated HRAS severity index presented below.

Table 2
Frequency of exacerbations of HRAS per year by patient group

Parameters	Frequency of exacerbations of HRAS							
	1-2		3-5		6-8		9-12	
	Abs	%	Abs	%	Abs	%	Abs	%
I (n=49)	7	14,29	14	28,6	17	34,69	11	22,4
II (n=48)	16	33,33	17	35,4	11	22,92	4	8,33
Bcero (n=97)	23	23,71	31	32	28	28,87	15	15,5

Moreover, it should be noted that in both studied groups the frequency of exacerbations depended on the duration of HRAS, but in group I the frequency of exacerbations among patients with comparable duration of the disease was significantly higher than in group II. We are also inclined to believe that the reason for this fact is the presence of helminth invasion in patients of group I (Table 3).

Table 3
The frequency of exacerbations of HRAS per year by groups of patients depending on the duration of HRAS

Subgroups	Frequency of exacerbations of HRAS per year	Duration of HRAS				
		Up to 1 month (n=12)	1-12 months (n=35)	1-5 years old (n=43)	More than 5 years (n=7)	Total (n=97)
I (n=49)	1-2	1	0	0	0	1
	3-5	0	7	8	0	15
	6-8	0	6	11	2	19
	9-12	0	2	7	5	14
II (n=48)	1-2	11	2	1	0	14
	3-5	0	11	5	0	16
	6-8	0	7	7	0	14
	9-12	0	0	4	0	4
Total (n=97)	1-2	12	2	1	0	15
	3-5	0	18	13	0	31
	6-8	0	13	18	2	33
	9-12	0	2	11	5	18

Based on the results obtained, we came to the conclusion that the frequency of exacerbations of HRAS is higher in patients with the presence of helminthiasis, and lower in patients without helminths and increases with the duration of the disease.

It should be noted that WTC INDEX and IOT were significantly higher in patients with a long course of the disease and a higher frequency of exacerbations.

It was found that patients with HRAS had one or another degree of oral dysbiosis; intestinal dysbiosis was found in 36 (75%) patients in group II and 48 (97.96%) patients in group I.

It was found that the degree of intestinal dysbiotic changes was also higher in the surveyed group I. Thus, the normal ratio of microorganisms in the intestine was recorded in 11 patients (22.91%) of group II, in group I such patients were not registered; 19 patients (39.58%) of group II and 4 patients (8.16%) of group I had a dysbiotic shift; the incidence of grade I and II dysbiosis was 13 patients (27.08%) in group II and 14 patients (28.57%) in group I, and the incidence of grade III dysbiosis in group I was 19 people (38.77%) and 5 (10.41%) patients in group II, while in group I 12 (24.48%) patients had grade IV dysbiosis (Fig. 3.7.).

The frequency of occurrence of dysbiotic changes in the oral cavity is higher in group I: in the oral cavity, a dysbiotic shift was noted in 16 (33.33%) patients in group II and in 5 (10.2%) patients in group I, and the frequency of occurrence of dysbiosis of I-II degrees was respectively 25 (52.08%) and 13 (26.53%) people; and grade III - in 7 (14.58%) and 28 (57.14%)

patients, respectively; at the same time, in group I, 3 (6.12%) patients had grade IV dysbiosis - unregistered patients in group II.

Conclusion:

1. Helminthiasis, as a concomitant pathology of HRAS, has a colossal effect on the oral cavity CO, intensifying the inflammatory processes in the soft tissues of the oral cavity, increasing the complaints of patients with HRAS and leading to more frequent exacerbations. Moreover, they not only increase the frequency of exacerbations, but also increase the severity of the course of exacerbations both subjectively and objectively according to the IOT index.

2. The presence of helminthic invasion in patients with HRAS significantly worsens the microbiocenosis of the oral mucosa even more in comparison with HRAS patients without helminthiasis, while in 90% of HRAS patients with helminthiases and 67% without helminthiasis, dysbacteriosis of one degree or another was stated, then the same applies to intestinal dysbiosis.

3. In patients with HRAS against the background of helminthiasis, in comparison with patients with HRAS without helminthiasis, such indices of local nonspecific resistance as IgA and IgG, sIgA, Ksb and lysozyme are significantly reduced, and the levels of sialic acids, alkaline and acid phosphatases are significantly higher. Also, all these indicators have an identical tendency of changes relative to healthy people of the control group in all HRAC patients, more pronounced in patients with helminthiasis.

List of references

1. Abdiev F.T. Correction of the state of immunity in helminthiasis // Bulletin of the doctor. Samarkand, 2007. No. 1. S. 76-78.
2. Avdyukhina T.I. Modern view of the problem of helminthiasis in children and effective ways to solve it. // Attending physician, 2004. No. 1. S. 14-18.
3. Eshiev A.M., Azimbaev N.M., Kurmanbekov N.O. Complex treatment of chronic recurrent aphthous stomatitis using blue light. // Bulletin of Osh State University, 2015. No. 3. P. 120-123.
4. Rabinovich I.M., Rabinovich O.F., Vakhrushina E.V. Recurrent aphthous stomatitis - classifications, clinical forms and treatment (part II) // Dentistry, 2010. No. 3. P. 76-80
5. Sergiev VP, Lobzin YV, Kozlov SS Human parasitic diseases (protozooses and helminthiases). A guide for doctors. 3rd ed. St. Petersburg: Folio; 2016.592s.
6. Tregubov V.N., Arutyunov S.D. Dentistry - M., 2003.-576s.
7. Ulmasov M.M. Epidemiological features of some helminthiasis and the organization of the fight against them in the Tashkent region. Dis. Cand. honey. sciences. T., 2007.S. 116.
8. Uspenskaya O.A. Etiopathogenetic substantiation of therapy of chronic recurrent aphthous stomatitis against the background of urogenital infection: Abstract of the thesis. dis. ... doc. medical sciences. - Nizhny Novgorod .: 2015 .-- 36 p.
9. Tsimbalistov A.V., Robakidze N.S., Tytyuk S.Yu. The state of the tissues of the oral cavity in patients with chronic inflammatory bowel diseases // Institute of Dentistry. - 2012. - No. 1.-S. 88-89.

10. Beiraghi S., Myers S.L., Regelman W.E., Baker S. Oral manifestations of a possible new periodic fever syndrome // *Pediatr. Dent.* - 2007. - No. 4. - P.323-326.
11. Lipsker D., Chosidow O. White lesions of the oral mucosa // *Rev. Prat.* -2002. -No.2, - P: 389-393.
12. Mora J. R., U. H. von Andrian Role of retinoic acid in the imprinting of gut-homing IgA secreting cells // *Seminars in Immunology.* - 2019. - Vol. 21, No. 1.-P. 28-35.
13. Mora J.R., U.H. von Andrian Differentiation and homing of IgA-secreting cells // *Mucosal Immunol.* - 2018. - Vol. 1, No. 2. - P. 96-109.
14. Patil C.S., Kirkwood K.L. MARK signaling in oral-related diseases // *J Dent. Res.* - 2007, - No. 9, - P.812-825.
15. W. van 't Hof, Veerman E.C., Nieuw Amerongen A.V., Ligtenberg A.J. Antimicrobial defense systems in saliva // *Monogr Oral Sci.* - 2014. - Vol. 24. - P. 40-51.