

**CLINICAL AND LABORATORY METHOD FOR ASSESSING THE EFFECTIVENESS OF  
DIAGNOSIS AND TREATMENT IN PATIENTS WITH CHRONIC RECURRENT APHTHOUS  
STOMATITIS AGAINST INFECTIOUS PATHOLOGIES OF THE GENITOURINARY SYSTEM**

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**ABSTRACT:**

Our literature on the pathology of chronic recurrent aphthous stomatitis (CRAS) reveals that there are a number of scientific views on the etiopathogenesis of this pathology as a neurogenic, immune, infectious and allergic theory of origin. Other scientists are promoting the concept of the tendency of this pathology in favor of the endocrine theory or reactivity and resistance of the body [1, 2, 6, 7, 9, 10, 11, and 20].

**KEY WORDS:** Oral cavity, genitourinary system, immunofluorescence, immunoenzyme, chronic renal failure, opportunistic pathogens, interleukins.

**INTRODUCTION:**

Today, the study of the relationship between the pathology of CRAS and chronic kidney disease (CKD), including the infectious pathology of the genitourinary tract, which haunts patients with its constant adverse clinical and psychological symptoms, but also adverse effects on people's quality of life, remains an equally urgent problem.

In dental practice, there have been cases of syphilis. Now, infections such as the herpes simplex virus of the first and second type are increasingly being detected. Moreover, if earlier the second type was found only in practice by venereologists, gynecologists and urologists, and the first - by dentists, now

dentists are faced with the first and second types of this virus [33]. There are frequent cases of detection of chlamydia trachomatis, mycoplasma hominis, and ureaplasma relictum [15, 17, 18]. Patients with a weakened immune system often have candidiasis in the oral cavity (OC) [4, 5].

In such cases, the dentist's task is to determine the severity and etiofactors in the pathology of CRAS, for this anamnestic and dental studies are necessary together. It is necessary to carry out a number of special clinical research methods, including immunohistochemical, microbiological, biochemical and Wasserman, Kahn, Sachs-Vitebsky tests and other methods [6, 7, 13, 16, 17, 19] for the purpose of diagnosis, differential diagnosis and evaluate the effectiveness ongoing treatment.

**LITERATURE REVIEW:**

All of these issues currently need clarification using complex and fundamental methods. And it is in dentistry, in our opinion, that this problem can be solved, since dentists are faced with CRAS, directly involved in its diagnosis and treatment, and they also often diagnose an infection of the genitourinary tract seeing its manifestations in OC.

The aim of the study was to study the effectiveness of complex treatment methods in patients with CRAS against the background of an infectious pathology of the genitourinary

In order to study the level of secretory immunoglobulin A (SIgA, G, A) in the OF, the method of radial immunodiffusion (RID) in a gel was performed (G. Mancini, A. Carbonara, 1965) (normal: IgA-0.108 ± 0.015 g / l; IgG-0.032 ± 0.008 g / l; lysozyme - 50.5 ± 1.48% (L.Yu. Orekhova et al., 1999): Ksb. = 0-2-favorable level; Ksb. = 2-5-moderate level; Ksb. ≥ 5.1-unfavorable level of local immunity A general blood test examined the level of hemoglobin, the number of red blood cells, white blood cells, platelets, erythrocyte sedimentation rate, white blood cell count (stab count (normal 1-6%), eosinophils (normal 0.5-5%), segmented neutrophils (normal 47-72%), basophils (0-1% normal), monocytes (3-11% normal), lymphocytes (19-37% normal):

Active T-lymphocytes were determined by the method of J. Wibran, Y. Funderberg (1973) -EA-ROCK; blood norm of 20 healthy donors was 21.0 ± 1.8% with fluctuations of 7% - 32.1%; 326.4 ± 37.3 cells in 1 µl with fluctuations from 100 to 500.

Statistical processing of the obtained results was carried out using the methods of evaluating the reliability of the results, methods of variational statistics, the method of autocorrelation according to standard methods and correlation analysis. Processing and analysis of the results were performed on a computer using the Microsoft Office (Excel) application software, the Statgraphics v.7, Stadia, and Statistica 7.0 software programs. According to the pathologies of OC in the examined group 1 was detected - KPU decompensated - 0; KPU, subcompensated form - 0.8%; KPU, compensated form - 2.5%; partial tooth loss - 40.0%; occlusion pathology - 24.1%; pathological abrasion - 10.8%; local hypoplasia - 1.6%; wedge-shaped defect - 36.6%; periodontal disease - 7.5%; catarrhal gingivitis - 31.6%; hypertrophic form of gingivitis - 10.8%; periodontitis - 27.5%;

swelling of MMOC - 6.6%; dryness, atrophy of MMOC - 4.1%; exfoliative cheilitis - 1.6%; meteorological cheilitis - 7.5%; folded tongue - 5.0%; desquamative glossitis - 4.1%; traumatic erosion - 1.6%; leukoplakia flat - 5.8%; mild leukoplakia - 5.8%; chronic lip crack - 7.5%; lichen planus; the typical form is 6.6%; the exudative-hypermerized form is 6.6%; herpes - 11.7%;

CRAS; Mikulich aphthosis - 75% and Setten aphthosis - 25%. The state of OC in the examined patients with CG, which complaining with CRAS without pathology of chronic renal failure, is noted; 0; 0; 1.6%; 41.6%; 25%; 8.3%; 1.6%; thirty%; 5.0%; 23.3%; 20.0%; 25.0%; 1.6%; 1.6%; 1.6%; 13.3%; 5.0%; 1.6%; 8.3%; 6.6%; 5.0%; 13.3%; 6.6%; 8.3%; 10%; 0; 0; respectively.

All examined patients reported complaints of discomfort, pain during eating and talking, the presence of "ulcers" in the OC - 76%, dryness in the OC - 7%, and of course, the intensity of the pain syndrome depended mainly on the number of elements of the lesion and localization. When examining OC, all the examined patients had aphthae, soft to the touch, painful on palpation, located on the background of a hyperemic spot of a round or oval shape, covered with a fibrinous grayish-white coating, which could not be removed during scraping, and a violent epithelial defect bleeding when plaque was removed. In addition, 66% of patients showed some swelling of the MMOC, 34% of the surrounding MMOC was not changed, and the color of the mucous membrane was pale pink; 19% of patients noted increased salivation, about 5% - dryness of MMOC.

When examining the examined MG, the aphthae were localized in the MMOC in 48% of cases - a transitional fold, in 29% of cases - on the lateral surface of the tongue, in 12% of cases - on the upper and lower lips, in 7% of cases - on the cheeks, in 2% - on CO of the

bottom of the OC, in 1% - on the CO of the retromolar region and in 1% of cases - on the CO of the soft palate; as well as in 59% of cases, the elements of the lesion were localized simultaneously in several sections of the MMOC.

In the results of the study, the intensity of dental caries in patients with MG on the KPI index was  $14.61 \pm 0.8$ ; the constant "K" was equal to  $5.48 \pm 0.4$  (35.7% of its value), the constant "P" -  $6.86 \pm 0.8$  (42%), the constant "U" -  $3.44 \pm 0.2$  (21%): The level of dental fillings was high in patients with CRAS with pathologies of the urogenital system, (PEC -  $0.67 \pm 0.06$ ): in the CG, these results were  $11.48 \pm 0.6$ ; -  $3.68 \pm 0.6$  (27.6%), "P" -  $4.44 \pm 0.4$  (36.36%), "U" -  $4.64 \pm 0.2$  (36.36%) respectively. The intensity level "P" and "U" turned out to be higher than "K" in patients with CRAS without pathologic chronic renal failure (PEC -  $0.47 \pm 0.06$ ). OHI-S index in patients was: MG -  $1.96 \pm 0.06$ ; CG -  $2.6 \pm 0.08$ : The hygienic condition of the PROG was on average unsatisfactory; CG is satisfactory. The results of the CRPD in the 1st group of patients was  $1.68 \pm 0.1$ ; in the 2nd group, the KPI was  $1.42 \pm 0.2$ .

In the relationship between CRAS and inflammatory manifestations of the pathology of the genitourinary system in patients with CRAS compared with CG ( $p \leq 0.01$ ), local clinical manifestations of the inflammatory process in the genitourinary tract were detected.

According to the results of exhaustive exhaust gases, in terms of the biochemical composition of leukocytes, lymphocytes, monocytes, segmented and stab neutrophils, eosinophils, B-lymphocytes and HCT test parameters, there is a significant difference with the comparison of the examined people with CG.

In the peripheral blood in patients with CRAS, an increased percentage of monocytes was found or approaching the upper limit of

the norm, which may also indirectly indicate the presence of pathology, but so far in the stage of compensation due to the reserve capabilities of the body. Significant differences in indices ( $p < 0.01$ ) were found in the number of stab neutrophils. Also, with CRAS, an increased percentage of monocytes was found or approaching the upper limit of the norm, which may also indirectly indicate the presence of pathology, but so far in the stage of compensation due to the reserve capabilities of the body. Significant differences in indices ( $p < 0.01$ ) were found in the number of stab neutrophils.

We observed the active participation of all immunocompetent cells in the process of chronic inflammation in patients with hypertension. Among these cells, a special role was played by monocytes involved in the regulation of the immune response, and lymphocytes, which are called key cells of the immune system, but at the same time, we observe different changes in the indicators of the immune status in almost every patient with MG.

When analyzing the amount of IgG, we did not find an increase in it, however, in our case, inhibition of the B-cell link of the immune system occurred, since chronic inflammation initiated by urogenital infection developed. The amount of IgG in patients with CRAS against the background of pathology of the genitourinary tract was  $11.2 \pm 0.16$  g / l compared with CG:  $12.8 \pm 0.4$  g / l (normal: 7.5-15.45 g / l); the IgA content in the 1st group of patients was  $2.45 \pm 0.48$  g / l compared with the control of  $1.9 \pm 0.08$  g / l (normal: 1.25-2.5 g / l).

According to the results, in the blood of patients with CRAS and ureaplasmosis, CRAS + chlamydia and CRAS + mycoplasma, the levels of total protein are significantly higher than in UsKG: - Levels of alpha 2-globulins, beta-globulins and gamma-globulins with CRAS

and ureaplasmosis are significantly higher than with UsKG; the levels of albumin and alpha 1-globulin are significantly lower with CRAS and ureaplasmosis compared with UsKG; - Among the protein fractions with CRAS and chlamydia, changes in the percentage of alpha 2 globulins and gamma globulins were detected, they are significantly increased compared with UsKG; And the fractions of albumin, alpha globulins and beta globulins with CRAS and chlamydia are significantly reduced compared with UsKG; - A, the levels of albumin and gamma-globulins with CRAS and mycoplasmosis are significantly reduced compared with UsKG; - Levels of alpha 1 and alpha 2 of globulins and beta globulins with CRAS and mycoplasmosis are significantly higher than in UsKG.

The results of the macro and microelement composition in the blood of patients with MG are shown in table No. 4. As can be seen from the table, the levels of total calcium and inorganic phosphorus are significantly higher with CRAS and ureaplasmosis, with CRAS and chlamydia of total calcium compared with UsKG ( $p < 0.05$ ).

Table №1.

Macro- and microelements in the blood in patients with CRAS in case of infection of the genitourinary tract ( $M \pm m$ )

Biochemical indicators	UsKGn = 20	Ureoplasmosis n = 10	Chlamydia n = 10	Mycoplasmosis n = 10
Iron, mmol / L	20,22 ± 0,66	13,62 ± 0,96*	12,44 ± 0,64*	24,6 ± 1,32
Copper, µmol / L	19,04 ± 0,6	14,0 ± 0,67*	13,12 ± 0,83*	14,8 ± 0,94*
Chlor, mmol / l	98,6 ± 0,44	54,53 ± 4,67*	103,8 ± 0,47	105,2 ± 0,66*
Total calcium, mmol / l	2,44 ± 0,80	2,69 ± 0,021*	3,0 ± 0,88*	2,0 ± 0,68*
Neo-organic phosphor, mmol / l	1,50 ± 0,04	1,88 ± 0,04*	1,14 ± 0,09*	1,18 ± 0,08*

Appendix: \* - statistically significant differences in the relative control ( $p < 0.05$ ). In patients with CRAS and mycoplasmosis, an increase in chlorine is detected; levels of general calcium, copper, inorganic and phosphate lowering, UsKG. And, with ureaplasmosis, level, iron, chlorine, UsKG. In patients with chronic obstructive pulmonary hyperplasia, uroplasmosis and activity of ALAT, aldolase 1.6, ACAT, alpha-amylase, alkaline phosphatase are increased compared to UsG.

With CRAS and chlamydia, the activity of ALAT, aldolase 1.6, ACAT, acidophosphatase was significantly increased, compared with UsKG. And the activity of SchF and levels of alpha-cholesterol with CRAS and chlamydia are significantly lower than in UsKG (table №2).

Table №2.

Active inactivity, keeping cholesterol and triglycerides in the blood in patients with CRAS with infection of the urinary tract ( $M \pm m$ )

Bio chemical indicators of blood	UsKG n = 20	Ureoplasmosis n = 10	Chlamydia n = 10	Mycoplasmosis n = 10
ALAT, mmol / s	0,48 ± 0,03	0,64 ± 0,06*	0,54 ± 0,08*	0,52 ± 0,02*
ACAT, µmol / s	0,33 ± 0,01	0,47 ± 0,01*	0,41 ± 0,08*	0,36 ± 0,003
Alpha-amylase, mg / h-ml	24,44 ± 0,45	28,02 ± 0,23*	26,04 ± 0,53	27,08 ± 0,42*
Aldolaza 1.6, ed.	5,12 ± 0,80	6,98 ± 0,22*	6,24 ± 0,88	6,6 ± 0,22*
Acidophosphatase, nkat / l	136,0 ± 5,08	156,62 ± 4,76	200,1 ± 6,43*	192,4 ± 10,01*
Alkaline phosphatase, mmol	0,90 ± 0,04	1,45 ± 0,03*	0,55 ± 0,04*	1,18 ± 0,22
Total cholesterol, mmol / l	5,44 ± 0,20	5,24 ± 0,22	2,13 ± 0,91	5,85 ± 0,66*
Alpha-cholesterol, mmol / l	1,48 ± 0,04	1,30 ± 0,06	1,13 ± 0,03*	1,30 ± 0,04
Triglycerides, mmol / l	1,36 ± 0,08	1,40 ± 0,08	1,22 ± 0,05	1,48 ± 0,04

Appendix: \* - statistically significant differences in the relative control ( $p < 0.05$ ).

**DISCUSSION:**

The data of a study of a number of chemically characteristic blood problems in patients with CRAS against the background of infection of the genitourinary system are shown in Table №3. The comparison of UsKG in patients with CRAS + is even better than the level of ratin and urinary acid, below the level of urea; Total, bound, and free birubin glucose are elevated compared to UsKG. And, thymol test, levels of beta-lipoprotein and sialic acid are reduced compared with UsKG.

Patients with CRAS + chlamydia have a high content of urea, uric acid and thymol sample in comparison with UsKG, level of ratinin, beta-lipoprothien and glucose are lower in comparison with UsKG. Levels of acid CRAS + chlamydia are higher than in practically healthy people (UsKG).

Table №3.

Blood biochemical parameters in patients with XPAC infection in the genitourinary tract (M ± m)

Bio-Chemical Indicators of blood	UsKG n = 20	Ureoplasmosis n = 10	Chlamydia n = 10	Mycoplasma -z n = 10
Urea, mol / L	5,50 ±0,21	4,03 ± 0,42*	6,88 ± 0,42*	6,82 ± 0,18*
Cretinine, µmol / L	76,90 ±2,22	86,71 ±3,92*	66,42 ±2,62*	82,6 ±1,83*
Urinary acid, mmol / l	0,34 ±0,001	0,39 ± 0,01*	0,40 ± 0,001*	0,40 ±0,01*
Total birubin, mol / L	12,0 ±0,62	20,90 ±0,45*	13,88 ±0,42	16,44 ±0,23*
Bibirubin bound, µmol / L	2,9 ±0,22	3,88 ±0,12*	3,10 ±0,60	3,12 ±0,23*
Free birubin, mmol / l	10,10 ±0,42	18,0 ±0,62*	11,0 ±0,44	13,82 ±0,87*
Timolovaya test, ed.	2,50 ±0,21	1,78 ±0,21*	3,22 ±0,18*	1,90 ±0,73*
Beta-lipoproteins, g / l	3,90±0,02	3,21 ±0,23*	3,02 ± 0,08*	4,92 ±0,43*
Sialic acid, ed.	670,42 ± 5,08	613,8 ± 7,11*	694,11 ± 4,14*	700,2 ± 6,37*
Glucose, mmol / l	4,75 ±0,15	5,20 ±0,01*	3,02 ±0,45*	3,14 ±0,23*
Fibrinogen, g / l	2,90 ±0,15	2,96 ±0,11	3,28 ±0,22	2,92 ±0,22

Appendix: \* - statistically significant differences in the relative control (p <0.05).

In patients with CRAS + mycoplasmosis with an UsKG, higher levels of urine, uric acid, total urine, total and associated amyloid, are free of lysobacterium. Thymol-test and glucose levels in CRAS and mycoplasma-lowering compared with UsKG.

Thus, in the case of CRAS + urogenital infection, the levels of the total white protein were 79.21 ± 1.3 g / l, which was significantly (p <0.01) higher than the control (70.92 ± 2.47 g / l), which is typical for inflammation processes.

A dental examination and subsequent treatment of patients with CRAS in the presence of an infectious pathology of the genitourinary system was performed. According to the results of the applied complex treatment methods for 12-15 days in patients - the 1st group with CRAS on the background of CKD and chronic infection of the genitourinary system, positive results were noted. Complaints of patients are directly related to the processes of epithelization of the elements of the lesion in MMOC in patients with hypertension by 7.7 ± 1.2 days; MG to 10.1 ± 1.4 days; CGk 8.2 ± 1.1 days of observation was observed complete epithelization of aphthae. Including the hygienic conditions of OC improved in all examined groups due to the parallel rehabilitation of OC.

Most often, blood is used to detect pathogens of the genitourinary system, as well as scrapings and swabs taken from the genitourinary tract and we know that the composition of the blood and saliva are quite closely related to each other. Therefore, the study was carried out on the basis of the presence of CRAS and infections with a tendency to a chronic and recurrent course: mycoplasmosis, chlamydia, and ureaplasmosis, and also studied the indicators of changes in

local immunity of OF in the examined before and after.

The results of analyzes of some immunological as well as biochemical parameters of pancreatic cancer in the case of chlamydia disease with CRAS are presented in table №4. As can be seen in practically healthy individuals, the amount of IgA and IgG in the RH, as well as the value of Kcb. much lower than in patients with chlamydia. At the same time, in practically healthy individuals, in comparison with patients with chlamydia + CRAS, levels of total calcium, sialic acids, levels of inorganic phosphorus, SigA, lysozyme, as well as alkaline phosphatase activity are increased.

Table №4.

Biochemical and immunological parameters of pancreatic cancer in patients with CRAS + Chlamydia

Indicators of RH	CG0) (n = 20)	Before treatment n = 20 (1st MG)	After treatment	
			n = 10 (1st MG)	n = 10 (1st CG)
Alkaline phosphatase, mmol	1,3 ± 0,03	0,8 ± 0,06 *	1,3 ± 0,02 *	1,01 ± 0,24 *
Sialic acids, units	6,8 ± 0,18	4,2 ± 0,12 *	6,3 ± 0,08 *	5,9 ± 0,34 *
Total Ca, mmol / l	4,97 ± 0,39	0,60 ± 0,04 *	4,86 ± 0,06 *	4,19 ± 0,42 *
Inorganic phosphorus, mol / l	8,44 ± 0,62	2,9 ± 0,59 *	8,8 ± 0,99 *	7,9 ± 0,88 *
IgA, g / l	0,08 ± 0,021	0,18 ± 0,02 *	0,09 ± 0,01 *	0,1 ± 0,01 *
IgG, g / l	0,1 ± 0,01	0,18 ± 0,02 *	0,98 ± 0,02 *	0,68 ± 0,02 *
Lysozyme, %	44,2 ± 2,4	10,42 ± 0,42 *	42,88 ± 0,41 *	40,22 ± 0,42 *
SIgA, g / l	0,40 ± 0,06	0,06 ± 0,04 *	0,44 ± 0,04 *	0,28 ± 0,08 *
Csb.	1,48 ± 0,20	5,43 ± 0,02 *	5,40 ± 0,02 *	4,14 ± 0,02 *

Appendix: \* - statistically significant differences relative to control (p < 0.05).

Table No. 5 shows the results of a study of some immunological and biochemical parameters of cancer with CRAS + ureaplasmosis before and after treatment.

Table №5

Biochemical and immunological parameters of pancreatic cancer in patients with CRAS + ureaplasmosis.

Indicators of RH	CG (n = 20)	Before (1st group) n=10	After treatment	
			(1st, MG. n=10)	(1st, CG).
Alkaline phosphatase,	1,3 ± 0,06	0,90 ± 0,02 *	1,24 ± 0,02 *	1,1 ± 0,04 *
Sialic acids, units	7,0 ± 0,12	5,20 ± 0,28 *	6,78 ± 0,48 *	6,24 ± 0,38 *
Total Ca mol / l	5,0 ± 0,88	1,26 ± 0,05 *	4,86 ± 0,03 *	4,0 ± 0,06 *
Inorganic phosphorus, mol / l	8,14 ± 0,32	2,98 ± 0,11 *	7,88 ± 0,22 *	7,21 ± 0,44 *
IgA, g / l	0,08 ± 0,006	0,20 ± 0,04 *	0,07 ± 0,01 *	0,06 ± 0,04 *
IgG, g / l	0,10 ± 0,001	0,14 ± 0,002 *	0,10 ± 0,009 *	0,09 ± 0,001 *
Lysozyme, %	45,4 ± 2,6	13,9 ± 0,59 *	44,9 ± 0,59 *	44,2 ± 0,78 *
SIgA, g / l	0,33 ± 0,08	0,14 ± 0,06 *	0,31 ± 0,02 *	0,31 ± 0,88 *
Csb.	1,56 ± 0,17	2,66 ± 0,46 *	1,51 ± 0,16 *	1,46 ± 0,42 *

Appendix: \* - statistically significant differences relative to control (p < 0.05).

Table No. 6 shows the results of a study of some immunological as well as biochemical parameters of the composition of the pancreatic cancer in cases of mycoplasmosis compared with CG. In practically healthy patients, the levels of sialic acids, IgA and IgG, as well as the value of Csb. in RH is much lower than in individuals with mycoplasmosis.

Table №6.

Biochemical and immunological parameters of pancreatic cancer in patients with CRAS + mycoplasmas

Indicators of RH	CG (n = 20)	Before treatment n = 20 (1st group.)	After treatment	
			n = 10 (1st MG)	n = 10 (1st CG)
Alkaline phosphatase, mmol / hr	1,2 ± 0,06	0,80 ± 0,02*	1,1 ± 0,02*	1,0 ± 0,08*
Sialic acids, units	6,6 ± 0,22	8,42 ± 0,04*	6,5 ± 0,12*	6,0 ± 0,24*
Total Ca, mmol / l	4,98 ± 0,40	0,68 ± 0,02*	4,52 ± 0,01*	4,22 ± 0,02*
Inorganic phosphorus, mol / l	8,22 ± 0,32	3,88 ± 0,34*	8,0 ± 0,39*	7,7 ± 0,19*
IgA, g / l	0,07 ± 0,008	0,14 ± 0,002*	0,07 ± 0,002*	0,06 ± 0,001*
IgG, g / l	0,08 ± 0,001	0,13 ± 0,004*	0,08 ± 0,002*	0,07 ± 0,004*
Lysozyme, %	44,2 ± 2,4	14,56 ± 0,24*	43,12 ± 0,31*	41,12 ± 0,28*
SIgA, g / l	0,32 ± 0,08	0,15 ± 0,004*	0,30 ± 0,002*	0,30 ± 0,008*
Csb.	1,54 ± 0,20	3,21 ± 0,18*	1,51 ± 0,03*	1,47 ± 0,06*

Appendix: \* - statistically significant differences relative to control (p < 0.05).

The results of the study of leukocytes, lymphocytes, monocytes, segmented and multinucleated neutrophils, eosinophils, B-lymphocytes and indicators of the HCT test are shown in table №7.

Table №7.

Examined patients with CRAS and a source of urinary tract infection (M ± m in%)  
n = 60 (1st exhaust gas) n = 60 (1st SG)

№	Biosubstrates (Shelter)	Before treatment n = 120	Amount	
			n=60 (1st MG)	n=60 (1st CG)
1	White blood cell count (normal: 4-9 × 10 <sup>9</sup> / l)	5,8 ± 0,28* (p < 0,05)	7,8 ± 0,48*	7,0 ± 0,98*
2	Number of lymphocytes (normal: 19-37%)	34,0 ± 0,42* (p < 0,05)	30 ± 0,92 (p < 0,05)	30,4 ± 0,22 (p < 0,05)
3	The number of monocytes (normal: 3-11%)	5,6 ± 0,64 (p < 0,05)	24,0 ± 0,92*	20,8 ± 0,94*
4	Number of segmented neutrophils (normal: 47-72%)	68,4 ± 1,24* (p < 0,05)	(p < 0,05)	(p < 0,05)
5	The number of stab neutrophils (normal: 1-6%)	2,32 ± 0,62* (p < 0,05)	5,8 ± 0,94	4,6 ± 0,44
6	Number of eosinophils (normal: 0.5-6%)	1,9 ± 0,44* (p < 0,05)	(p < 0,05)	(p < 0,05)
7	The number of b-lymphocytes (normal: 15-35%)	14,6 ± 0,45* (p < 0,05)	38,8 ± 1,04*	18,8 ± 1*
8	Indicators of the HCT test (normal: 40-80%)	12,6 ± 0,85* (p < 0,05)	(p < 0,05)	(p < 0,05)

Appendix: \* - statistically significant differences relative to the norm (p < 0.05):

\*\* - statistically significant differences relative to the control group (p < 0.05).

The results of leukocytes and lymphocytes in the peripheral blood revealed an increase in their number in patients with hypertension compared with CG. The severity of leukocytosis in patients with CRAS and urinary tract infection in most cases was associated with somatic pathologies. These results mean that leukocytosis and lymphocytosis in patients of the 1st group examined, in contrast to CG and patients with a cured urogenital infection without relapses and without CRAS. In the peripheral blood in patients with CRAS, an increased percentage of monocytes was found or approaching the upper limit of the norm, which may also indirectly indicate the presence of pathology, but so far in the stage of compensation due to the reserve capabilities of the body. Significant differences in indices ( $p < 0.01$ ) were found in the number of rod-neutrophils.

According to our data, a chronic inflammatory process associated with the presence of opportunistic pathogens in the OF and in the genitourinary tract can develop in patients with CRAS and with a focus of infection of the genitourinary tract. The results obtained indicate that in patients with CRAS against CKD, especially with an infected genitourinary tract, signs of local immunodeficiency were found, which is largely determined by the place and prevalence of inflammation. In this case, no dependence on the specific pathogen of infection in the genitourinary tract was revealed.

The amount of IgG in patients with CRAS against the background of pathology in the genitourinary tract was  $11.2 \pm 0.16$  g / l compared with CG:  $12.8 \pm 0.4$  g / l (normal: 7.5-15.45 g / l); the IgA content in the 1st group of patients was  $2.45 \pm 0.48$  g / l compared with a CG of  $1.9 \pm 0.08$  g / l (normal: 1.25-2.5 g / l).

In patients with CRAS + urogenital infection, a significant dependence of the effect of therapy on such characteristics as age, social

status, duration of use of the drug in days, localization and frequency of local inflammatory manifestations has not been established.

The ongoing course of taking a complex method of treatment, especially with phytotherapeutic rinses for a long time, allows to achieve an effective result, which was especially important for patients with an infectious lesion of the genitourinary tract.

Observation of all patients for 3 months, 6 months and 12 months after the full course of treatment allowed us to establish a long-term remission. In group I, recurrence of development of aphthae was not detected. In group II, relapse occurred 10 months after treatment. In group III, aphthous elements appeared 6, 9 months after the course.

#### CONCLUSION:

1. The following clinical manifestations are significantly more frequent ( $p < 0.06 \pm 0.031$ , the OHI-S index was  $2.14 \pm 0.001$ ) in patients with CRAS and urogenital tract infection: regional lymphadenitis (97%), Mikulich aphthosis (67%), the simultaneous occurrence of aphthae in different parts of the MMOC (62%), swelling of the MMOC (54%), a high level of tooth decay intensity (PEC  $-0.37 \pm 0.06$ ). The complex periodontal index was  $1.96 \pm 0,031$ , the OHI-S index was  $2,14 \pm 0,06$ .
2. In CKD, especially infections of the genitourinary tract, reliably more often ( $p < 0.001$ ) there is a recurrence of CRAS, which has a longer and more severe course, with a brighter clinic and much worse treatment.
3. The main pathogenetic factor in the recurrence of infection with CRAS is immunodeficiency of T-cell and B-cell units, which has individual characteristics and a significant scatter in the parameters of each patient with CRAS, which causes dysfunction of polymorphonuclear leukocytes.



4. With CRAS, significantly more often ( $p < 0.01$ ) there are hyperproteinemia, hypoalbuminemia, hyper- $\alpha_2$  globulinemia, hyposupremia, increased levels of uric acid, ALAT, ACAT and aldolase 1.6 ( $p < 0.05$ ). These changes are associated with the persistence of CKD pathogens, especially infectious lesions in the genitourinary tract and chronic inflammation. With CRAS and CKD, especially in infectious lesions of the genitourinary tract, in the RH there is a decrease in the activity of alkaline phosphatase, the level of total calcium and inorganic phosphorus, SIgA and an increase in the value of Csb. ( $p < 0.001$ ).

5. Etiopathogenetic therapy includes complex treatment with antihistamines, sedatives, multivitamin preparations and polyoxidonium, in the local treatment for OC rehabilitation, rinsing OC with "Parsley Juices" and "Clove essential oil", effective already for 2-5 days, significantly ( $p < 0, 01$ ) reduces the frequency of relapses (3%), does not cause adverse and allergic reactions (0%), especially effective results are obtained when the oral cavity is individually sanitized.

#### REFERENCES:

- 1) Vasilieva E.A. Modern aspects of etiology, pathogenesis, clinic, diagnosis and treatment of chronic aphthous stomatitis / E.A. Vasiliev // Graduate student. - 2013. - T. 61. - No. 6. - p. 84-91.
- 2) Gaffarov S.A. Immunological processes as an etiopathogenetic factor of chronic recurrent aphthous stomatitis and chronic pancreatitis / Gaffarov S.A. et al. Methodological recommendations. Tashkent-2010y.p-20
- 3) Degtyar E.A. Clinical and biochemical substantiation of the effectiveness of local therapy of erosive and ulcerative lesions of the oral mucosa in stomatitis of the dentition: Avtorev. Diss. ... Candidate of Medical Science-Krasnodar, 2015.-19p.
- 4) Kazarina L.N. Evaluation of the immunological status of the oral cavity in patients with bronchial asthma taking inhaled hormonal drugs / L.N. Kazarina, I.M. Chuvarkova // Periodontology. - 2013. - T. 18. - No. 2. - p. 18-21.
- 5) Kazarina L.N. The state of periodontal and immune status in children with esophagogastroduodenal pathology / L.N. Kazarina, A.E. Pursanova // Dentistry. - 2010. - T. 89. - No. 2. - p. 15-17.
- 6) Kamilov, H.P. Clinical and microbiological relationships of chronic recurrent aphthous stomatitis and dysbiotic disorders of the oral cavity and intestines in pregnant women / Kh.P. Kamilov, G.I. Lukina, W.A. Shukurova // DentalForum. - 2009. - No. 2. - p. 67-70.
- 7) Kazarina L.N. Evaluation of the immunological status of the oral cavity in patients with bronchial asthma taking inhaled hormonal drugs / L.N. Kazarina, I.M. Chuvarkova // Periodontology. - 2013. - T. 18. - No. 2. - p. 18-21.
- 8) Kazarina L.N. The state of periodontal and immune status in children with esophagogastroduodenal pathology / L.N. Kazarina, A.E. Pursanova // Dentistry. - 2010. - T. 89. - No. 2. - p. 15-17.
- 9) Kamilov, H.P. Clinical and microbiological relationships of chronic recurrent aphthous stomatitis and dysbiotic disorders of the oral cavity and intestines in pregnant women / Kh.P. Kamilov, G.I. Lukina, W.A. Shukurova // DentalForum. - 2009. - No. 2. - p. 67-70.
- 10) Lunitsyna, Y.V. Correction of local immunity in patients with aphthous stomatitis / Yu.V. Lunitsyna, S.I. Tokmakova // Medical alphabet. - 2011. - T. 2. - No. 6. - p. 62-64.
- 11) Nikonov G.K., Mainuilov B.M. "Fundamentals of modern herbal medicine" //www.e-stomatology.ru

- 12) Rabinovich, I.M. Immunomorphology of recurrent aphthous stomatitis / I.M. Rabinovich [et al.] // Dentistry. - Media sphere. - 2012. - 2. - p. 23-25.
- 13) Rabinovich, I.M. Recurrent aphthous stomatitis - etiology of pathogenesis (part I) / I.M. Rabinovich, O.F. Rabinovich, E.L. Panfilova, E.V. Vakhrushina // Dentistry. - Media sphere. - 2010. - 1. - . 71-74
- 14) Sokhov, S.T. Comprehensive treatment of CRAS using sublingual tablets of the immunomodulating drug galavit / S.T.Sokhov, A.A. Tsvetkova, L.A. Axamit // Russian Dental Journal - 2009. - No. 2. - 56-60 p.
- 15) Sirak S.V. Treatment of vulgar pemphigus with localization of lesions on the MMOC and lips using local wound healing agents in combination with imudon // [https:// dentalmagazine.ru](https://dentalmagazine.ru)
- 16) Tokmakova, S.I. Methods for assessing the effectiveness of cryo-analgesia of aphthae in the treatment of chronic recurrent aphthous stomatitis / S.I. Tokmakova, L.Yu. Starokozheva // M., 2008. - Volume 7. - No. 2. - 18-20 p.
- 17) Assumption O.A. Etiopathogenetic rationale for the treatment of chronic reducible aphthous stomatitis against a background of urogenital infection. Abstract. Doc Honey. Science. 45 sec Nizhny Novgorod 2015.
- 18) Shevchenko, E.A. Analysis of the incidence of urogenital infections in the Volga Federal District / E.A. Shevchenko // Epidemiology and Infectious Diseases. - 2010. - No. 1. - P. 14-16.
- 19) Shevchenko, E.A. Features of changes in some biochemical blood parameters in viral urogenital infections / E.A. Shevchenko // Questions of virology. - 2011. - T. 56. - No. 2. - P. 39-41.
- 20) Shevchenko, E.A. The method of rapid diagnosis and differential diagnosis of urogenital infections / E.A. Shevchenko, K.N. Kontorshchikova // Patent for invention. - RUS 2247373. - 04/28/2003.
- 21) Shevchenko, E.A. Chronic inflammatory processes of the reproductive sphere and their etiological features / E.A. Shevchenko, S.B. Artifeksov, A.A. Artifeksova et al. // Medical almanac. - 2010. - No. 4. - P. 161-163.
- 22) Aberdam, D. Embryonic stem cells as a cellular model for neuroectodermal commitment and skin formation / D. Aberdam, K. Gambaro, A. Medawar et al // C R Biol. - 2007. - 330. - 479 pp.
- 23) Abrahamsson, T.R. Low diversity of the gut microbiota in infants with atopic eczema / T.R. Abrahamsson, H.E. Jakobsson, A.F. Andersson et al // J Allergy Clin Immunol. - 2012. - 129. - Pp. 434-440.