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ASSESSMENT OF QUALITY OF LIFE AND DENTAL STATUS OF PATIENTS WITH CHRONIC RECURRENT LIP CHACK

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Summary. The influence of chronic recurrent lip cracks on the condition of the oral cavity, in particular on the condition of periodontal diseases and the hygienic level, has been established. Clinical criteria for assessing the severity of chronic recurrent fissures of the lips are described and options for the severity of the disease are substantiated with an expert assessment of the reliability and convergent validity of the developed criteria.
Keywords: chronic recurrent lip chack (CRLC), oral mucosa (OM), gingivitis, periodontitis, caries, pulpitis, index of CP.

Relevance of the problem. Diseases of the red border of the lips are one of the most common pathologies in the practice of clinical dentistry, the prevalence of which is steadily increasing; screening studies reveal lesions of the lips as the most common diseases of the oral mucosa (OM) (Bansal S, 2017; Ntomouchtsis A 2010; Osterne RL, 2011; Patil S, Maheshwari S 2014 Patil S, Maheshwari S 2014). Chronic recurrent fissures of the lips (CRLC) account for from 3.0 to 16.0% of all pathology of the oral mucosa, while from 3.0% to 6.0% of CRLC are capable of malignant degeneration [1,4,8].

The torpidity of CRLC to traditional therapy and the tendency to malignancy make the problem of diagnosis, establishing new mechanisms of pathogenesis and increasing the effectiveness of CRLC therapy one of the key problems in dentistry [2,6,12,13].

Typically, this pathology of the mucous membrane of the red border of the lips is observed in persons of both sexes in all age groups. The prevalence of certain types of chronic, often recurrent independent diseases of the red border of the lips among various population groups varies widely - from 3.9 to 26.4%. They are difficult to treat with traditional drug therapy and are prone to malignant transformation [2,3,5,7,10].

Clinical studies provide important information that guides practitioners based on the severity of the disease and allows them to plan preventive and therapeutic measures [1,4,10]. Therefore, research data are of significant scientific and practical value [12,13].

In modern dental publications, we have not found any studies devoted to assessing the severity of the clinical course of chronic recurrent fissures of the lips, which prompted us to share our own experience.

Purpose of the study: based on our own practical observations, to assess the quality of life and dental status of patients with chronic recurrent lip fissures.

Materials and methods of research. To establish the prevalence and severity of the clinical course of lip fissures, 1,570 patients who sought dental care at the therapeutic dentistry clinic of the Tashkent State Dental Institute were examined at a dental appointment. Of those examined, lip fissures were found in 92 patients, which amounted to 5.85±0.59% of the total number of patients treated for dental diseases.

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To assess the dental status before the start of treatment for the disease, complaints were collected and anamnesis was analyzed, the face and red border of the lips were examined for the presence of anatomical features characteristic of a chronic fissure (reduced height of the lower third of the face, full lips, constriction on the lower lip).

We paid attention to the presence of factors in the oral cavity that can initiate the appearance of chronic lip cracks, such as the presence of prostheses made of dissimilar metals, traumatic edges of crowns and fillings, etc. We took into account other pathologies of the red border of the lips and oral cavity that could aggravate the course of the fissure of the red border of the lips (exfoliative cheilitis, lichen planus, atopic dermatitis, etc.).

The level of oral hygiene was assessed using the simplified hygiene index - OHI-S - index (Green J.C., Vermillion J.R., 1964); severity of gingival inflammation - according to the PMA index as modified by Parma (1960); the level of destructive periodontal lesions - according to the index (PI) according to Russel (1956); bleeding gums - according to the Mullemann bleeding index (as modified by Cowell) and tooth mobility according to the Miller scale as modified by Flesar.

The severity of the carious lesion was assessed by the CPU index as the sum of its constituent elements: carious teeth - element “K”, filled teeth - element “P” and extracted teeth - element “U”.

The assessment of quality of life (QOL) was carried out on the basis of the Russian version of the SF-36 questionnaire, to assess the quality of life of healthy people and patients with various types of pathology (Short Form Medical Outcomes Study -SF-36) [Ware J.E., Kosinski M., Keller S.D. SF-36 Physical and Mental Health Summary Scales: A User’s Manual // The Health Institute., New England Medical Center. Boston, Mass. 1994.]

The “physical” and “psychological” components of health were taken into account. For this purpose, before the start of therapy, all patients independently filled out 36 items of the SF-36 questionnaire, grouped into eight scales characterizing two indicators: the “physical” component of health” and the “psychological” component of health. The calculation of the values of the SF-36 questionnaire was carried out using a specially developed program [2,3].

Results and discussions. We found that 60.78% of those with cracked lips were men and 39.13% were women. It should be noted that 28 (30.44%) patients with lip fissures were patients in the index age group of 35–44 years; the incidence of lip fissures in younger and older age groups was significantly lower: in the age group 18–24 years – 12 (13 .04%)); 24 – 34 years – 17 (18.48%); 45 – 54 years – 15 (16.30%); 55 – 64 years old – 12 (13.04%) and over 65 years old – 8 (8.69%) patients (Table 1).

A comparative analysis of the distribution of lip fissures depending on gender revealed a predominant distribution of pathology in men. And this pattern did not depend on the severity of the clinical course. Thus, in patients with a mild course, 13 (59.09%) were men and 9 (40.91%) women; with a moderate course, the same ratio was 25 (60.00%) and 10 (40.00%) and with a severe course, 28 (62.22%) and 17 (37.78%), respectively.

Table 1.

The severity of the clinical course of chronic recurrent fissure lips depending on age and gender

Age group	**Severity of the current, score**			**Total, average score**
	0,1 – 1,0	**1,1 – 2,0**	**2,1 – 3,0**	

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18 – 24 n=12/100,0	6/5,0	3/25,0	3/25,0	1,25±0,05
25 – 34 n=17/100,0	4/23,53	6/35,29	7/41,18	2,03±0,09
35 – 44 n=28/100,0	7/25,0	7/25,0	14/50,0	2,42±0,11
45 – 54 n=15/100,0	2/13,33	5/33,33	8/53,33	2,51±0,12
55 – 64 n=12/100,0	2/16,67	2/16,67	8/66,66	2,58±0,12
> 65 n=8/100,0	1/12,50	2/25,0	5/62,50	2,63±0,11
Total n=92/100,0	22/23,91	25/27,17	45/48,91	2,33±0,08
Men n=56/100,0	13/59,09	15/60,0	28/62,22	2,72±0,07
Women n=36/100,0	9/40,91	10/40,0	17/37,78	2,03±0,06

Note: in the numerator abs. size; in the denominator – as a percentage of the number of patients in the group

The severity of the clinical course of lip fissures increases with age. Thus, in patients in the age group 18–24 years, a severe course of the disease was found in 3 (25.00%); in the age group 25 – 34 years – 7 (41.18%); in the index age group 35–44 years – 14 (50.00%); 45 - 54 years old – 8 (53.3%); 55 – 64 years old – in 8 (66.66%) and in the older age group over 65 years old – in 5 (62.00%) (Table 1).

During the study, we established the overall prevalence of periodontal diseases in patients with CRLC equal to 86.96%, which was statistically significantly higher than that of the control group 52.50% (χ^2=18.420; P≤ 0.001). At the same time, severe forms of periodontal damage predominated in patients with CRLC. Thus, the prevalence of gingivitis in patients in the control group – 15.00% – was significantly higher than that in patients with CRLC – 1.087% (χ^2=10.746; P≤0.002); the corresponding ratios of mild periodontitis in patients with CRLC were 5.25%; in control – 20.00%. (χ^2=6.661; P≤0.05).

On the contrary, the incidence of moderate periodontitis was higher in patients with CRLC - 20.35% versus 10.00% in the control group (χ^2 = 5.808; P ≤ 0.016); similar ratios of severe periodontitis were HRTG - 51.09% versus 7.50% in the control (χ^2=22.509; P≤0.001).

Table 2.

Prevalence (in%) of periodontal pathology in patients in the dynamics of increasing severity of chronic recurrent lip fissures

		CRLC, heaviness		χ^2

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Nosological form	Control n=40	Light n=21	Moderate n=25	Heavy n=46	Total with CRLC n=92	P
Gingivitis	6/15,0	1/1,087	–	–	1/1,087	10,746 P<0,002
MCGP	8/20,0	1/1,087	1/1,087	3/3,26	5/5,26	6,661
		χ^2=17,021; P<0,01				P<0,05
CGPMS	4/10,0	3/5,26	8/8,69	16/17,39	27/29,35	5,808
		χ^2=14,186; P<0,01				P<0,016
CGSP	3/7,5	2/2,17	10/10,86	35/38,04	47/51,09	22,509
		χ^2=30,179; P<0,001				P<0,001
Total	21/52,5	7/7,61	19/20,65	54/56,70	80/86,96	18,420
		χ^2=72,319				P<0,001

A statistically significant association has been proven between an increase in the prevalence of periodontitis and an increase in the severity of the clinical course of CRLC [1,3]. Thus, the frequency of detection of MCGP in patients with CRLC increases in the series mild course → moderate course → severe course from 1.087% for mild and moderate severity to 3.25% for severe fracture (χ^2 = 17.021; P≤0.01); the dynamics of the increase in the prevalence of CGPMS is even more pronounced: 5.26%; 8.69% and 17.39% (χ^2=14.186; P≤0.01) and the maximum with CGSP – 2.17%; 10.86% and 38.04% (χ^2=30.179 P≤0.001). In general, in patients with CRLC, the increase in the prevalence of periodontitis with the severity of the local process on the red border of the lips was: 7.61%; 20.65% and 56.70% (χ^2=72.319; P≤0.001) (Table 2).

A statistically significant decrease in the level of oral hygiene and an increase in the severity of inflammatory and destructive periodontal lesions in patients with CRLC were established. Thus, the indicator of gingival inflammation (PMA index, %) in patients with CRLC was higher than the corresponding values in the control group by 64.98% (P≤0.01); periodontal destruction (PI index) – by 36.05% (P≤0.01); hygiene (OHI-S index) – by 36.98% (P≤0.01); bleeding (according to the Müllerman index) – by 54.79% (P≤0.01) and tooth mobility – by 76.33% (P≤0.01).

Conclusions: A statistically significant decrease in the level of oral hygiene and an increase in the severity of inflammatory and destructive periodontal lesions in patients with CRLC was established.

Similar results were obtained when analyzing the intensity of caries and its constituent elements. So, the value of the CPU index. Thus, the intensity of caries (CPI index) in patients with CRLC exceeded the corresponding indicator in the control group by 57.93% (P≤0.01);

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intensity of caries (element "K") – by 57.93% (P≤0.01); the number of filled teeth (element "P") - by 53.32% (P≤0.01) and the number of teeth removed (element "U") - by 76.33% (P≤0.01).

Bibliography

1. Bekzhanova O., Yulbarsova N. Psycho-emotional characteristics of patients with chronic lip fissures // Days of Young Scientists. – 2020. – No. 1. – pp. 67-69.
2. Bekzhanova O. E., Yulbarsova N. A., Kasymova G. I. IMPROVEMENT OF PATHOGENETIC THERAPY OF A CHRONIC CRACK OF THE LIP // Current problems of pediatric dentistry and orthodontics. – P. 22.
3. Bekzhanova O., Yulbarsova N. Sf-36 when assessing the quality of life of patients with chronic lip fissures // Current problems of dentistry and maxillofacial surgery 4. – 2021. – T. 1. – No. 01. – pp. 121-123.
4. Kirzhinova E.M. Hemodynamic and microbiological aspects of local therapy of independent diseases of the red border of the lips: Abstract of thesis. ...candidate of medical sciences Volgograd, 2015. – 21 p.
5. Levanova O.G., Popova L.I., Chuprov A.D. Criteria for assessing the severity of sympathetic uveitis depending on clinical manifestations // Ophthalmological Gazette Volume VIII No. 3 2015. – P. 24 – 28.
6. Makeeva I.M., Matavkina M.V. "Oncological alertness for diseases of the lips" // "Dentistry for everyone", No. 2, 2012, p. 54-58
7. Matavkina M.V. "The role of neurogenic factor in the occurrence of chronic recurrent fissure of the lip" // "Dentistry", No. 3, volume 91, 2012, pp. 76-79
8. Odintsova V.V., Zudin A.B., Gorchakova N.M., Dmitrieva V.A., Nikiforova A.A. Quality of life and well-being of patients with chronic diseases: Methodological recommendations, - M., 2016. – 24s.
9. Pursanova A.E., Kazarina L.N., Gushchina O.O., Serhel E.V., Belozerov A.E., Abaev Z.M. Clinical and immunological features of precancerous diseases of the oral mucosa and red border of the lips // Dentistry. - 2018.-N 5.-P.23-26
10. Chumakova Yu.G. The role of local officials in the development of periodontitis / Yu.G. Chumakova // Implantology, periodontology, osteology. - 2008. - No. 3. - pp. 70-75.
11. Ditmyer M., Dounis G., Mobley C., Schwarz E. Inequalities of caries experience in Nevada youth expressed by DMFT index vs. Significant Caries Index (SiC) over time. BMCOralHealth. 2011.- №-11, pp.12-21.
12. Frencken J. E., Amorim R. G., Faber J., Leal S. C. The Caries Assessment Spectrum and Treatment (CAST) index: rational and development. International Dental Journal. 2011, no.61,pp.117-123.
13. Honkala E., Runnel R., Honkala S., Olak J., Vahlberg T., Saag M. Measuring dental caries in the mixed dentition by ICDAS. International Dental Journal. 2011, p. 150424.