

## ROLE OF TRIGGER FACTORS AND SOMATIC PATHOLOGY IN CHRONIC RECURRENT LIP CRACK

**Yulbarsova Nazokat Alisherovna**, assistant (PhD)

Tashkent State Dental Institute

Department: Propaedeutics of therapeutic dentistry

### ABSTRACT

*The frequency of detection of the symptom of decreased height of the lower part of the face in patients with mild chronic fissures of the lips was 1.042%; with moderate severity – 3.12%; and in severe cases in 14.58% of patients versus 5.00% in the control group; increase in the frequency of detection of the lip with a “central” constriction, respectively, 2.084%; 24.168% and 11.46% in the absence of control; similar dynamics of increase; frequency of detection of a “full” lower lip is 0.0%; 2.08% and 14.58% versus 7.5% in the control; trauma from chipped teeth, fillings and orthopedic structures – in 1.042%; 2.084% and 12.50% versus 7.5% in the control; and the frequency of the bad habit of “biting” lips is correspondingly 0.0%; 3.12% and 8.33% versus 2.5% in the control.*

**Keywords:** *chronic recurrent fissure of the lips, trigger factors, somatic pathology, CP indicator, inflammatory-destructive periodontal lesions.*

### АННОТАЦИЯ

*Частота обнаружения симптома снижения высоты нижнего отдела лица у пациентов с легким течением хронической трещины губ составила 1,042%; при течении средней тяжести – 3,12%; а при тяжелом течении у 14,58% больных против 5,00% в группе контроля; увеличение частоты обнаружения губы с «центральной» перетяжкой соответственно 2,084%; 24,168% и 11,46% при отсутствии у контроля; аналогичная динамика увеличения частота обнаружения «полной» нижней губы 0,0%; 2,08% и 14,58% против 7,5% в контроле; травма сколами зубов, пломб и ортопедическими конструкциями – у 1,042%; 2,084% и 12,50% против 7,5% в контроле; а частота вредной привычки «прикусывания» губ соответственно 0,0%; 3,12% и 8,33% против 2,5% в контроле.*

**Ключевые слова:** *хроническая рецидивирующая трещина губ, триггерные факторы, соматическая патология, показатель КПУ, воспалительно-деструктивные поражения пародонта.*

## INTRODUCTION.

Diseases of the red border of the lips (RBL) 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). The presence of a defect on the lips and pain, eating and performing oral hygiene, also provoke anxiety states, which in turn initiate an aggravation of both a local process on the red border of the lips [1,3,5].

The lower lip, due to its anatomical position, is more susceptible to solar radiation, which largely determines its susceptibility to pathological changes [1,3,4,5].

Symptoms of a chronic cracked lip, the main symptom is the presence of a painful crack on the lip, making it difficult to talk and smile. When examining the lips, a painful linear defect is revealed with a violation of integrity at the bottom of the crack, about a centimeter long, located transversely on the lips. Cracks sometimes continue from the lip border to the mucous membrane, but do not extend to the skin. A brown crust may appear. If the crack is present for a long time, the edges become denser and acquire a grayish-white color [1,2,5].

It is known that chronic recurrent fissure of the lips (CRFL) is a multifactorial pathology, in the development of which local anatomical and mechanical trigger factors make a significant contribution, which confirms the relevance of the study.

The purpose of the study is to determine the role of trigger factors and somatic pathology in chronic recurrent lip fissures.

## MATERIALS AND METHODS OF RESEARCH.

To achieve this goal, we used the following research methods. Before the start of treatment for the disease, complaints were collected and the anamnesis was analyzed, the face and RBL 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 RBL and oral cavity that could aggravate the course of the RBL fissure (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); 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 KFE index as the sum of its constituent elements: carious teeth - element “K”, filled teeth - element “F” and extracted teeth - element “E”.

## RESULTS AND DISCUSSIONS.

92 patients with CRFL were examined. 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.

A detailed analysis revealed the predominance of anatomical, constitutional and trigger risk factors in patients with CRFL. At the same time, a characteristic decrease in the height of the lower part of the face was found in 18 (18.75%) patients with CRFL versus 5.00% in the control group ( $\chi^2=4.658$ ;  $P\leq 0.05$ ); and the characteristic anatomical feature is the lower lip with a central constriction, respectively, in 17 (17.71%) versus absence in the control group ( $\chi^2=8.095$ ;  $P\leq 0.05$ ); and “full” lower lip, respectively, in 16 (16.67%) versus 3 (7.5%) in the control ( $\chi^2=1.974$ ;  $P\geq 0.161$ ); chronic trauma with teeth, fillings or orthopedic structures – in 15 (15.62%) versus 3 (7.5%) in the control ( $\chi^2=1.623$ ;  $P\geq 0.203$ ); and the habit of biting lips – in 11 (11.46%) versus 1 (2.5%) ( $\chi^2=4.987$ ;  $P\leq 0.026$ ).

From a clinical point of view, it is important to note a statistically significant increase in the frequency of trigger risk factors with increasing severity of the pathology. Thus, the frequency of detection of the symptom of decreased height of the lower part of the face in patients with a mild course was 1.042%; with moderate severity – 3.12%; and in severe cases, this sign was registered in 14.58% of patients with CRFL versus 5.00% in the control group ( $\chi^2=9.144$ ;  $P\leq 0.05$ ); increase in the frequency of detection of the lip with a “central” constriction, respectively, 2.084%; 24.168% and 11.46% in the absence of control ( $\chi^2=8.003$ ;  $P\leq 0.046$ ); similar dynamics of increase; frequency of detection of a “full” lower lip is 0.0%; 2.08% and 14.58% versus 7.5% in the control ( $\chi^2=14.142$ ;  $P\leq 0.0035$ ); trauma from chipped teeth, fillings and orthopedic structures – in 1.042%; 2.084% and 12.50% versus 7.5% in the control ( $\chi^2=10.052$ ;  $P\leq 0.019$ ); and the frequency of the bad habit of “biting” lips is correspondingly 0.0%; 3.12% and 8.33% versus 2.5% in the control ( $\chi^2=14.190$ ;  $P\leq 0.003$ ).

In the examined patients, the prevalence of periodontal diseases in patients with CRTG, equal to 86.96%, was statistically significantly higher than that of the control group of 52.50% ( $\chi^2=18.420$ ;  $P\leq 0.001$ ). At the same time, severe forms of periodontal damage predominated in patients with CRTG. Thus, the prevalence of gingivitis in

patients in the control group – 15.00% – was significantly higher than that in patients with CRTG – 1.087% ( $\chi^2=10.746$ ;  $P\leq 0.002$ ); the corresponding ratios of mild periodontitis in patients with CRTG were 5.25%; in the control – 20.00% ( $\chi^2=6.661$ ;  $P\leq 0.05$ ).

On the contrary, the incidence of moderate periodontitis was higher in patients with CRTG - 20.35% versus 10.00% in the control group ( $\chi^2=5.808$ ;  $P\leq 0.016$ ); similar ratios of severe periodontitis were CRFL – 51.09% versus 7.50% in the control ( $\chi^2=22.509$ ;  $P\leq 0.001$ ).

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

Similar results were obtained when analyzing the intensity of caries and its constituent elements. So, the value of the KFE index. Thus, the intensity of caries (KFE index) in patients with CRFL exceeded the corresponding indicator in the control group by 57.93% ( $P\leq 0.01$ ); intensity of caries (element “K”) – by 57.93% ( $P\leq 0.01$ ); the number of filled teeth (element “F”) - by 53.32% ( $P\leq 0.01$ ) and the number of teeth removed (element “E”) - by 76.33% ( $P\leq 0.01$ ).

### CONCLUSIONS.

The association of CRFL with dental pathology of various origins, as well as a significant increase in the frequency and severity of periodontal diseases and dental caries with the severity of CRFL, suggests a connection between CRFL diseases and one or another systemic pathology. Systemic pathology can influence the course of dental diseases through immunological, infectious and toxic effects [1,4]. In this case, systemic pathology often initiates many nonspecific processes in the body, which have a significant impact on the course of pathological processes in the oral cavity and on the RBL [1,5].

In this connection, the next stage of research was the analysis of the influence of system processes on the development of CRFL. In this connection, the next stage of research was the analysis of the influence of system processes on the development of CRFL.

## BIBLIOGRAPHY

1. Bekzhanova O.E., Astanakulova M.M. Etiopathogenetic aspects of exfoliative cheilitis // Stomatologiya. Tashkent. No. 3, 2018, pp. 61-65.
2. Dyall-Smith D. DermNet NZ. Contact reactions to lipsticks and other lip care products. [cited 2020 Mar 24]. Available from: <https://dermnetnz.org/topics/contactreactions-to-lipsticks-and-other-lipcare-products/>
3. Fonseca A., Jacob S.E., Sindle A., Art of prevention: Practical interventions in liplicking dermatitis, International Journal of Women's Dermatology (2020), doi: <https://doi.org/10.1016/j.ijwd.2020.06.001>
4. Makovski TT, Schmitz S, Zeegers MP, Stranges S, van den Akker M. Multimorbidity and quality of life: systematic literature review and meta-analysis. Ageing Res Rev. 2019; 53:100903.
5. [Sher L.](#), [University S.](#), [Geddie H.](#), [University S.](#), [Olivier L.](#), [Cairns M.](#), [University S.](#) Chronic Stress and Endothelial Dysfunction. Mechanisms, Experimental Challenges and Way Ahead// [AJP Heart and Circulatory Physiology](#). – 2020. - 319(52 DOI:[10.1152/ajpheart.00244.2020](https://doi.org/10.1152/ajpheart.00244.2020))