

## **METHODS FOR DETERMINING THE DEGREE OF PREVALENCE OF GUM RECESSION IN PATIENTS OF DIFFERENT AGE GROUPS**

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### **ABSTRACT**

To date, from the total number of periodontal diseases, the gum recession is 10%. Gum recession increases with age: occurs in children from 15% in different manifestations, approaching 90% after 65 years of age. Recession can be the result of a physiological process of aging, as well as progressive inflammation and lesions in periodontal tissues. Varying in shape and depth, this periodontal pathology creates the need for scientists to develop methods and tools that allow them to aesthetically eliminate various forms of this periodontal pathology. Data analysis in the literature shows that the effectiveness of measures to determine the degree of prevalence of gumrecession is determined primarily by identifying the factors that cause gum recession, correctly choosing the treatment criterion used and eliminating observable complications.

**Key words:** periodontal surgery, gum recession, multifactorial pathology, recession index.

### **INTRODUCTION**

Gum recession is a polyethiological disease of parodont tissue common worldwide, characterized as apical displacement of the gingival edge of the tooth relative to cement-enamel [1]. Although this pathology rarely causes tooth loss causes aesthetic impairment, hypersensitivity, consequences such as Root caries [2]. Periodontal disease although a multifactorial disease, it has been advanced that there is a bacterial cause in the gum of the tooth as the main etiological factor . Bacteria cause the development of the disease in different ways, one of which is the production of endotoxin . These endotoxins (complex lipopolysaccharides) have potential inflammatory agents in the form of bacterial cell wall fragments and can be found in the cement of the tooth roots in untreated periodontal disease [2,3]. Endotoxins that bind to tooth root cement do not inhibit fibroblast growth in vitro

and have cytotoxic effects; mechanically removing cement In vitro has been shown to stimulate cell growth on the tooth root surface, as well as in vivo, complete removal has been found. As a result of this, traces of dental cement and endotoxins remain [4,5]. If the final goal of periodontal treatment is to restore the lost tissue of the tooth, this is done by complete regeneration or by forming newts, for which the surfaces of the tooth roots must be completely cleaned of endotoxins [6,7]. For this reason, topical therapeutics are used as part of the task of reconstructing cosmetic gum plastic and to create conditions for detoxification and new tissue formation in the process of bone regeneration [8].

**Goal of the work.** Is the study of methods for determining the degree of prevalence of gum recession in patients of different age groups.

## MATERIAL AND METHODS OF RESEARCH

For the purpose of study and to carry out the tasks set, 150 patients with gum recession who applied at different ages were examined in the dental clinic located on the territory of the TTA multidisciplinary clinic and 2 children's dental Polyclinic in Yunusabad District during 2023-2024.

We measured the size of the gum recession as the distance from the enamel-cement border to the level of the gum edge. We took measurements on all tooth surfaces. A graded periodontal probe was used to determine the magnitude of the recession. The following criteria for assessing the milking recession in points were used: 1-there is no gum recession; 2-there is a recession of 1 to 2 mm gums on the surface of one tooth; 3 - 2 and increase there is a recession of 1 to 2 mm gums on the surface of the teeth; 4-there is a recession of 3 to 5 mm gums on the surface of one tooth; 5-2 and increase there is a recession of 3 to 5 mm gums on the surface of the teeth; On the surface of teeth 6-1 and more there is a recession of gums more than 5 mm. The following interpretation of the recession index is proposed, regardless of the age of the examiner: The importance of the recession index, the degree of recession weight: 0.1-2.0 light; 2.1-3.5 average; 3.5-5.0 heavy.

All of the above clinical methods were used to assess the effectiveness of the proposed treatment preventive measures in 150 people between the ages of 15 and 65 in various clinical forms of milk recession. Determining the magnitude of the gum recession has had some peculiarities. Treatment preventive measures were carried out in 150 people aged 15 to 65 years. The observations included 50 patients with traumatic local recessions of milks, 30 with traumatic generalizations, 30 with symptomatic localizations, 40 with symptomatic generalizations. In order to objectively assess the condition of the Parodont, the identification of objective hygienic and parodontal indices and synapses was carried out. The following were calculated: - Müllemanu-Kouellu (Mühlemann J.; Cowell I.) bleeding " probe

sinama – - bleeding rate from gums (in scores-from 0 to 3; - periodontal pocket depth (PCh) - mean marks (in mm) on detection endings at 6 points around each tooth; - Russell's periodontal index (PI) (Russell A.), it not only describes the degree of inflammation of the gums, but also shows the structural damage of bone tissue (in scores -0 to 8); the periodontal index (PI) (Russell A.), makes it possible to take into account both gingivitis, as well as other signs of periodont pathology: tooth decay, depth of clinical pockets, etc. In each existing tooth, a periodont state is assessed. In suspicious cases, the highest of all available grades is placed. The grades obtained to calculate the index are added and divided by the number of Teeth available by the formula:

PI index = sum of marks on each tooth

Number of teeth in the examined patient

The importance of the index is assessed in the following order: Initial and mild levels of 0,1-1,0-parodont pathology; Average severity of 1,5 – 4,0-parodont pathology; 4,0-8,0-severe degree of parodont pathology. - The degree of tooth decay (in points -0 to 3) on the Miller scale in the phlezar modification.

X-ray examinations were carried out to assess the description and level of bone tissue damage to the alveolar tumor and clarify the diagnosis: - general jaw radiography (3D computed tomography Morita R-100); The processing of clinical material was carried out using a variational-statistical method with the application of styling criteria.

## RESULTS AND DISCUSSION

In our studies, milk recession was detected in all age groups of morality. The prevalence of Milk recession increased to  $10.9 \pm 0.05\%$  in adolescents aged 15 and 100% in individuals over 65. The indicators (indices) of milk resection studied by us have fluctuated in different age groups. At age 15, Stahl reported indexes of  $5.5 \pm 0.5\%$  on Morris, at age 35-44, the recession was recorded at  $37.7 \pm 1.5\%$  teeth, while in older adults (age 64 and older), the index magnitude reached  $74.6 \pm 1.8\%$ . The intensity of milk resection ranged from  $1.04 \pm 0.06$  mm in 15-year-olds,  $2.4 \pm 0.03$  mm in 35-44-year-olds, and  $3.5 \pm 0.1$  mm in 64-year-olds. The index of the gum recession (RI) proposed by US increases as the age grows older, which is also indicated by its mark, which is 15 years old –  $0.6 \pm 0.2$ , 35-44 years old –  $2.2 \pm 0.05$ , 64 years old –  $3.95 \pm 0.1$  points.

All clinical indicators of milk recession tend to increase as age increases, which, in our opinion, can serve as evidence that it is both a physiological aging process and an increase in the intensity of damage to the periodont tissue. The

unreliability of differences in the distribution of gum recessions on the sides of the jaw ( $r > 0.05$  in all age groups), despite the assessment of gum recessions by dental groups on the aloxi, it turned out that the main differences exist between right and left peg teeth and premolars. We explain this by the physiological peculiarities in the location of the teeth in the estimated jaws and the effect of teeth cleaning.

The recession of the gums is observed at the highest level in the area of multiple lower frontal teeth (food) and in the area of the first molar at the top, that is, in areas where more tartar is characteristic, which allows us to estimate that the worst hygiene of the oral cavity is considered a risk factor for the pathology under study. However, it should be noted that in patients of the 18-year-old, 20-24-year-old group, gum recession is most common in the lower frontal teeth and upper carapace teeth. This is evidenced by the fact that in 15-year-olds, the milk recession of the upper Stakes was observed in  $0.39 \pm 0.06$  teeth, while in the upper molar  $0.07 \pm 0.01$  teeth, in 20-24-year-olds, these indicators were  $0.73 \pm 0.1$  and  $0.14 \pm 0.01$ .

The cited data allow us to predict that in different age groups, existing differences in the distribution of gum recession by individual groups of teeth, some physiological peculiarities in youth, as well as teeth cleaning, testify to the fact that they affect the development of gum recession. In the older age group, the gum recession is considered as the naitijas of the cumulative effect of all etiological factors, which increase in proportion to age-related. The study of the distribution of gum recession on the surfaces of teeth in the aloxia testifies to the fact that the gum recession begins on the vestibular surface (at the age of 15, the amount of gum recession vestibular surfaces is  $1.7 \pm 0.1$ , oral –  $0.2 \pm 0.02$ ). In the adult group, there are indications of oral surface gum recession (in the 35-44 – year-old group, the amount of vestibular and oral surfaces is almost the same and  $6.3 \pm 0.3$  and  $6.2 \pm 0.2$  in suitable holes, in people over 64 years of age, the amount of vestibular surface is  $7.2 \pm 0.1$ , oral- $8.6 \pm 0.1$ ). The recession of the gums on the aproximal surfaces is mainly recorded in the thirties. In the adult group, the highest quality and quantitative indicators of gum recession are characteristic mainly of oral surfaces, to a lesser extent – aproximal surfaces. It is calculated that if at the age of 15 there are no surfaces with a recession size greater than 3 mm, then in other remaining groups in the field, the amount of surfaces with a recession size less than 3 mm is also observed to accurately increase the amount of surfaces with a milkscale recession greater than 3 mm. We include low oral hygiene, gingivitis, tooth-jaw defects (deep and distal bite), genetically related predisposition (advanced teeth, dense arrangement of teeth, small entrance to the oral cavity), dental cleaning injuries to the risk factor in the superficial arrival of gum recession. On the basis of

epidemiological examination data, the suitability of the gum recession for oral hygiene indicators was established. For 15 years, satisfactory hygiene has been carried out on the Green-Vermillion index, with recession index Stahl, Morris  $3.8 \pm 0.1\%$ , recession intensity -  $1.05 \pm 0.2$  mm; RI -  $0.26 \pm 0.01$ , while in poor hygiene, milk recession rates of OHI-s > 2.6 increase to  $6.75 \pm 0.5\%$ ,  $1.22 \pm 0.1$  mm and  $0.63 \pm 0.07$  in mos Khol. In the same order, other age group indicators change, which testifies to the dependence of the gum recession on Oral hygiene: the worse the oral hygiene, the more pronounced the gum recession. Unsatisfactory oral hygiene leads to inflammatory changes in the tissues of the parodont and can then occur as one of the symptoms of gum recession disease. Hence, in 18-year-old individuals with mild levels of inflammation ( $GI = 0.1 - 1.0$ ), Stahl, Morris had a recession index of  $6.12 \pm 0.46\%$ , recession intensity of  $1.05 \pm 0.05$  mm, RI of  $0.45 \pm 0.02$ ; in moderate inflammation ( $GI = 1.1 - 2.0$ ) Stahl, Morris-based index of  $7.80 \pm 0.6$ , recession intensity of  $1.32 \pm 0.13$ , RI- $0.70 \pm 0.08$ . As inflammatory changes take place, the incidence of gum recession also increases. At severe levels of inflammation in the 35-44 - year-old group, Stahl reported a recession index of  $52.66 \pm 4.4\%$ , recession intensity of  $2.42 \pm 0.06$  mm, and RI of  $2.59 \pm 0.05$  points, a significant increase in recession rates from Stahl, Morris of  $34.36 \pm 1.19\%$ , recession intensity of  $2.21 \pm 0.06$  mm, RI- $2.09 \pm 0.05$  in individuals of the same age with mild inflammation. The same law is determined when comparing the index of recessions with the PMA index: the more severe the degree of inflammation. It has been found by us that clinical indicators of gum recession depend on the degree of damage to the periodont tissue. In the 35-44-year-old group, KPI ni transitions from mild to severe (1.1-2.0) to severe (2.6-5.0), in Stahl, Morris, index magnitude increases from  $30.09 \pm 1\%$  to  $42.7 \pm 2.3\%$ , recession intensity increases from  $1.85 \pm 0.14$  mm to  $2.45 \pm 0.09$  mm, and RI increases from  $1.9 \pm 0.1$  to  $2.4 \pm 0.14$ . In adults over 64 years of age, the mean KPI is Stahl,  $62.3 \pm 2.8\%$  in the Morris index parity,  $2.92 \pm 0.2$  in intensity, RI -  $3.4 \pm 0.04$ , while in severe extent these magnitudes are  $74.2 \pm 1.9\%$  in mos Hol;  $3.4 \pm 0.2$  mm and  $3.98 \pm 0.13$  (Table 3). This data testifies to an increased rate of gum recession with an increase in pathological changes in the tissues of the parodont. A similar view is observed in the cross-comparison of indicators of gum recession with dynamics of other periodontal indices PI, PDI ni. Gum recession often occurs in individuals with various orthodontic defects. According to our data, in the group of 18-year-olds with gum recessions, it was noted that in 15.2% of cases, the dense arrangement of teeth from the tooth arch is accompanied by vestibular protrusion of teeth in 26% of cases, with a violation of the bite, the recession of the gums is often accompanied.

According to our point of view, these factors can be included in the risk group for the development of gum recession.

## CONCLUSION

The analysis of the results obtained determines the dependence of the distribution of one or another clinical form from the age factor. In the younger age period, the traumatic form of recession tends to have a greater advantage than its symptomatic form: traumatic recession occurs in 15-year-olds at 62.1%. As age grows older, its prevalence decreases significantly (at 25-29 years old - 15.5%, at 30-34 years old - 9.8%, at 35-44 years old - 2.5%); at the same time, the prevalence of symptomatic forms increases to 37.6% at 15 years old, at 64 years old and older - up to 97.3% in 2.6% axoli with gum recession of this age, there will be signs of aging of parodont.

## REFERENCES

1. Chetrus V., Rome I. Gingival recession, diagnostic methods // Romania J. oral rehabilitation. – 2014. - T. 6. – №. 3.
2. Novikov O.O., Pisarev D.I., Zhilyakova E.T. 2014. Juniper: phytochemistry and pharmacology of genus *Juniperus* L.: monograph. Moscow, Publishing House of The Academy of Medical Sciences. P. 178.
3. Orekhova L. and ot. Gingival is the cause of the recession. Antibacterial and anti-inflammatory parts of complex treatment // Periodontology. – 2017. - T. 22. – №. 4. - S. 20-23
4. Sabirov E.E., Boymuradov Sh.A. Mechanisms of gum recession during tobacco smoking // O'zbekiston vrachlar assotsiatsiyasining byulleteni, 2020, No. 3, pp. 96-100
5. Sabirov E.E., Boymuradov Sh.A. A modern view of the etiopathogenesis and treatment of gum recession // Stomatologiya, 2021. – No. 2. – pp. 25-28
6. Sabirov E.E., Boymuradov Sh.A., Normurodov B.K. The spread of gum recession in different age groups of the Yunusabad district of Tashkent // Innovative development of science and education. Collection of scientific publications. Kazakhstan. May 2020. – p.117.
7. Yalamanchili P. S. et al. Gingival prosthesis: a treatment for recession // Journal of orofacial sciences. – 2013. - T. 5. – №. 2. - S. 128.
8. Zubachyk V., Iskiv M. biochemical aspects affect soft tissue drugs aqualift and dmae after modeling stagnation milk on rats // Ukrainian Dental Almanac. – 2016. - T. 1. – №. 1. - S. 21-23.