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SOI: [1.1/TAS](#) DOI: [10.15863/TAS](#)

### International Scientific Journal Theoretical & Applied Science

p-ISSN: 2308-4944 (print) e-ISSN: 2409-0085 (online)

Year: 2020 Issue: 05 Volume: 85

Published: 28.05.2020 <http://T-Science.org>

QR – Issue



QR – Article



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## ASSESSMENT OF THE CLINICAL AND FUNCTIONAL STATUS OF THE ORAL CAVITY IN THE COURSE OF CHRONIC PERIODONTAL TISSUE PATHOLOGY IN DERMATOSES

**Abstract:** The article describes the assessment of the clinical and functional status of the oral cavity in the course of chronic periodontal tissue pathology in dermatoses. Clinical examination was performed in 154 patients aged 25 to 60 years with various forms of dermatoses (including 98 patients with purulent form and corticosteroid medications prescribed by a specialist) and 50 patients with periodontal tissue lesions without clinical signs of dermatoses (control group - CG), radiological, clinical-laboratory, clinical-functional and statistical examination methods were conducted for three years.

**Key words:** Dermatoses, chronic periodontitis, oral cavity, pathogenesis, corticosteroid drugs.

**Language:** English

**Citation:** Gafforov, S. A., & Djumaev, Z. F. (2020). Assessment of the clinical and functional status of the oral cavity in the course of chronic periodontal tissue pathology in dermatoses. *ISJ Theoretical & Applied Science*, 05 (85), 351-355.

**Soi:** <http://s-o-i.org/1.1/TAS-05-85-68> **Doi:**  <https://dx.doi.org/10.15863/TAS.2020.05.85.68>

**Scopus ASCC:** 2700.

### Introduction

UDC 616.314.17-036.12-092: 616.5-002-07

The pathogenesis of chronic recurrent periodontitis (PCR) lies in the genesis of local tissue trophic disorders, disorders of organic and microcirculatory activity as a result of imbalances in the mental, hormonal, immunological and immune systems. As a result, periodic tissue hypoxia is observed, the activation of free radicals oxidation, superoxide dismutase attenuation and catalase, glutathione peroxidase, cytochromoxidase activity decreases, but the increase in sulfhydryl group increases protein consumption, among these clinical antioxidant drugs [5,8], a number of types of dermatoses; It was noted that periodontal tissue injury in patients with dermatitis, eczema, neurodermatitis,

urticaria depends on the age of the patient and the hygienic condition of the mouth, including the CPITN - index [8].

Another group of scientists developed a concept showing the association of stereotypical reactions of local and systemic character in the observation of PCR pathology among patients with dermatoses, and that it is associated with the development and progression of endogenous intoxication; increase in the number of medium-molecular peptides and oligopeptides in the blood, proteolytic processes, LPO activation, AOT depletion, increased oxidative modification of proteins [4,5],

Other authors have noted that long-term use of glucocorticosteroids leads to mineral imbalance, decreased bone tissue remodeling and the development of osteoporosis [6,7,9], lack of a

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comprehensive approach to systemic treatment of periodontitis in patients with dermatoses, lack of clinical cooperation between dentists and dermatovenerologists [1,2]. Based on the results of the analysis of the literature, the scientific basis for the occurrence of periodontal disease among patients with dermatoses and their etiopathogenetic course confirms the need for research to date.

### II. Literature review

The purpose of the study: the incidence of PCR in dermatoses and the assessment of the clinical and functional condition of the oral cavity.

In the clinical base of the Department of "Dentistry, Pediatric Dentistry and Orthodontics" TIAMS and 154 patients with various forms of dermatoses aged 25 to 60 years (including 98 patients receiving vesicles and corticosteroids by a specialist) and dermatoses clinical, radiological, clinical-laboratory, clinical-functional and statistical examination methods were conducted for three years in 50 patients (control group - CG) with periodontal tissue injuries only without clinical signs.

### III. Analysis

Results of scientific research; in various forms of dermatitis (eczema, neurodermatitis, krapivnitsa, krasnyy ploskiy lysha, vesicles, etc.) the pathology of periodontal tissue is reflected in each other in the clinical picture. For example, only 14.8 + 1.1 people aged 25-35 years were examined for periodontal tissue, 86.02 + 2.2% had signs of tissue inflammation, of which 14.4 + 1.2% were gums, 35.3 + 1.8% tartar, 30.6 + 1.8% tooth-gum pockets 4-5 mm; 7.4 + 2.1% 6 mm and deeper cases were reported. 22.6 + 1.1 and 78.3 + 3.2% of cases of intact teeth and pathological gums at the age of 36-45 years, and inflammation and congestion of the gums 30.2 + 2.0 and 3.2 + 3.2%.

Among patients with dermatoses aged 25-35 and 36-45 years in CG, the average number of dental pockets did not exceed 2-2.5 mm, and the incidence of inflammation was 22.5% on average. In the main group, the analysis showed that the difference between the minimum and maximum significance was 2.2 to 3.7 compared to the control group, when there was an injury to the periodontal pocket segments from 3.4 to 4.5 for one examined patient.

46-60-year-old patients with dermatoses and periodontal pocket depth 4-5 mm and above 6 mm; an equal result was observed in the sequence 44.1 + 2.2 and 12.5 + 1.2%. In this group, segmental injuries, periodontal disease and tartar in periodontal tissue were observed in 9.1 + 1.1 and 35.6 + 1.5%. At the same age in CG, periodontal tissue inflammation and gingival pocket depth were reported in the order of 24.9 + 2.2 and 5.7 + 0.9%, respectively, with gingivitis and tartar 14.2 + 1, Decreases were observed between 1 and 31.2 + 1.5%.

The results of the study show that periodontal disease among people with skin and genital pathologies; gingivitis, gingival sinusitis, and calcification are associated with negative clinical signs in CG, i.e., those without dermatoses, as well as relatively curable treatment-and-prophylactic care.

A total of 98 patients with a vesicular appearance of dermatoses that was in the clinical stress phase and receiving corticosteroid therapy were screened. In patients, numerous erosions were noted in the unchanged mucosal layer of the oral cavity that merged with each other. The affected areas were reddish with a white-gray fibrous coating, often bluish in color.

Oral discomfort in 37 (36.6%) cases, while 12% of patients with the blister form of dermatoses complained of pain in the oral cavity; 50 (51.88%) reported pain during speech or eating, and 11 (13.44%) reported pain and refusal to eat due to pain. Of those examined, 62 (63.36%) complained of excessive salivation, and 36 (76.7%) complained of bad breath.

When analyzing the anatomical and topographical location of the elements of the lesion, they are most often in the mucous membrane of the cheek - 42 (46.56%); at the base of the tongue and at the base of the mouth - in 36 (35.13%) patients, and limited gum injury was recorded in 20 (19.65%) patients, among other topographic areas of the OCD. Injury elements were observed in 21 (20.92%) of the labia, outside the oral surface, and in 23 (21.54%) in the retromolar area.

Injury of gum tissue and alveolar tumors of the alveolar area was observed in 57.74% of patients, of which limited location was detected in 22.8% and 34.12% of patients, covering other areas of the alveolar region.

Periodontal tissue injury in the form of dermatoses, exactly periodontitis is observed in 96% of cases; severe periodontitis (SP) - 60.77 ± 6.89% (5.0 ± 3.45% in CG), moderate periodontitis (MoP) - 18.44 ± 3.5% (17 in CG). 0 ± 3.85%) and mild periodontitis (MiP) - 18.39 ± 2.0% (37.5 ± 7.65% in CG).

The result was a direct correlation between the SP incidence rate, which is statistically significantly higher than CG, and its progressive increase with increasing bladder duration; that is, 44.72 ± 2.06% with a disease duration of up to 1 year; In 1-3 years - 64.0 ± 3.8% and for more than 3 years - 84.4 ± 3.12%. The prevalence of MoP and MiP levels decreased, and their incidence was 23.81 ± 7.84%, respectively, when the disease duration was less than 1 year - 25.37 ± 3.62%; Results of 1-3 years - 11.0 ± 4.01% - 16.0 ± 3.43% and more than 3 years - 1.8 - 2.6 ± 3.12% were recorded.

Studies have not shown that the prevalence of periodontitis depends on the localization of the symptoms of the injury; in contrast, the SP level was

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68.63 ± 9.92% in limited injury of the gums and alveolar tumor; in joint injuries - 62.45 ± 5.11% and limited - 49.0 ± 0.95%: the number of MoP was 8.50 ± 6.9%, respectively; 23.58 ± 9.55% and 19.0 ± 4.68%: MiP - 13.22 ± 6.6%; 9.9 ± 4.4% and 13.0 ± 4.68%, respectively.

The development of inflammatory-destructive lesions in the periodontium is led not by the location of the elements of injury, but by systemic autoimmune processes that determine the activity of aggression factors and weaken the body's compensatory capacity.

It should be noted that the prevalence of injury, the severity of periodontal injury, which corresponds to the periods of severe inflammatory-destructive disorders and recurrence of perforation, is the specificity of periodontal tissue injury.

### IV. Discussion

Index assessment of periodontal hygienic condition was observed in the following table when observing the duration of the periodontal anatomical and topographic variants of signs of injury (Table 1).

**Table 1. Indices of inflammation, destruction, hygiene and periodontal bleeding depending on the duration of dermatoses in the form of pustules**

| Group, duration of corticosteroid intake, year | PI, score    | PMA, %        | OHI-S, score | Bleeding, score |
|--|--------------|---------------|--------------|-----------------|
| Control n=50                                   | 2,65±0,15    | 35,25±1,66    | 2,87±0,14    | 1,42±0,10       |
| Patients with pertussis n = 98                 |              |               |              |                 |
| Up to 1 year n=26                              | 5,28±0,22°   | 50,24±2,32°   | 3,62±0,15°   | 2,65±0,11°      |
| 1-3 year n=34                                  | 6,44±0,31°Δ  | 66,31±3,11°   | 4,88±0,21°   | 3,00±0,14°      |
| >3 year n=38                                   | 7,62±0,42°ΔX | 78,45±3,62°ΔX | 5,81±0,27°ΔX | 9,52±0,17°ΔX    |
| Total n=98                                     | 6,66±0,22°   | 67,65±23°     | 4,82±0,22°   | 3,08±0,11       |

Note: ° - P < 0.05 - relative to control; D - P < 0.01 - for results up to 1 year; CH - P < 0.01 - for 1-3 years

The rate of periodontal destruction (PI index) in patients with pertussis was 154.2% (P < 0.01) relative to CG; gingivitis index (PMA) - 91.91% (P < 0.01); oral hygiene (OHI-S) - 67.9% (P < 0.01) micelle bleeding index (Müllertsan index) - and 116.9% (P < 0.01). It was found that the degree of inflammatory-destructive damage to the periodontium increases with increasing duration of perforation.

In patients with pericarditis, the PI index is 99.25% (P < 0.01) when the disease duration is up to 1 year; 1-3 years 143.02% (P < 0.01) and more than 3 years - 187.55% (P < 0.01); The same dynamics was observed for the PMA index, which was 42.52% (P < 0.01); 88.11% (P < 0.01) and 122.55% (P < 0.01); oral hygiene OSU-S index - 26.13% (P < 0.01); 70.03% (P < 0.01) and 102.44% (P < 0.01) and the gum bleeding index was 86.62% (P < 0.01); 111.27% (P < 0.01) and 147.89% (P < 0.01) of CG were observed.

Thus, in limited periodontal injury, the PI index is 165.66% of CG (P < 0.01); 161.89% (P < 0.01) in combined injuries and 146.04% (P < 0.01) without alveolar gum injury; PMA index corresponding to - 90.77% (P < 0.01); 86.21% (P < 0.01) and 81.96% (P < 0.01); For the OSU-S index - 69.69% (P < 0.01); 70.38% (P < 0.01) and 60.98 (P < 0.01); gum bleeding

index - 119.42% (P < 0.01); High results were observed for CG values of 114.79% (P < 0.01) and 109.86% (P < 0.01).

In addition to general factors (subsystemic pathology, corticosteroids and cytostatics intake), the following local factors play an important role in the genesis of periodontal injury in patients with peritoneal lesions: 11.11 ± 6.0% were observed in NG (P < 0.05); gum damage due to restorations - 53.06 ± 7.12% (11.11 ± 6.0 in NG) (P < 0.05); injuries of the gums with orthopedic structures - 42.29 ± 7.06% (NG-14.81 ± 6.9%) (P < 0.05); Induction of OCD under the influence of tobacco was detected in 61.22 ± 6.96% (22.22 ± 8.06% in NG) (P < 0.05).

The results of clinical trials of periodontal disease indicate that the joint pathology has a recurrent and progressive nature and requires the participation of dentists and dermatologists in their treatment.

An orthopantomogram of the lower third of the skull was analyzed to assess the condition of periodontal bone tissue. To do this, we performed orthopantomographic images densitometrically by direct X-ray densitometry.

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Examination of orthopantomograms in patients with rheumatoid arthritis revealed a uniform change in the density of bone tissue on the horizontal surface, a decrease in the thickness and presence of porous substance, cortical plate on the vestibular and oral surfaces of the alveolar bone. Such changes in bone tissue indicate that resorption is not uniform and that osteoporosis is present.

In some patients, complete absence of bone on the vestibular surface of the tooth root and thinning of the compact plate were observed. In the absence of alveolar bone tissue on the vestibular surface, the thickness of the porous layer on the lingual side of the tongue is determined to be minimal. In patients with non-persistent periodontitis, the radiographic picture

was consistent with that of moderate-severe periodontitis - alveolar marginal height decreased by 43.5 relative to root length, bone tissue thinning foci, bone columns, and trabecular cavities decreased accuracy.

Mineral density of mandibular bone tissue in the area of molar teeth in patients without molars was 16.16% (R <0.05); in patients with rheumatism - 29.04% (R <0.01); in the field of premolars decreased by 18.13% (R <0.05) and 27.52% (R <0.01), respectively; The same situation was observed in the upper jaw, where: in the molar sphere - 16.17% (R <0.05) and 29.64% (R <0.01), premolar - 15.2% (R <0.05). and 28.9% (R <0.01) (Table 2).

**Table 2. Mineral density of alveolar tissue of the jaw in patients with periodontitis due to the presence of pustules (orthopantomograms% of light absorption)**

| Observation           | Lower jaw   |             | Upper jaw   |             |
|-----------------------|-------------|-------------|-------------|-------------|
|                       | Molar       | Premolar    | Molar       | Premolar    |
| Periodontitis         |             |             |             |             |
| There is no porcupine | 73,62±3,21° | 71,22±3,11° | 73,82±2,81° | 71,33,3.05° |
| There is no porcupine | 62,312,66°  | 60,82±2,81° | 61,92±2,65° | 59,81±2,45° |

Note: ° - R <0.05 NG (for normal) control; ° - R <0,05) in relation to the indicators of non-peritoneal patients

An exacerbated decrease in alveolar bone mineral density in patients with rheumatoid arthritis suggests a pathogenetic link between mucosa, bone tissue, and systemic osteoporosis. These changes indicate the need for systemic and local osteotropic therapy.

### V. Conclusion

Thus, periodontal inflammatory diseases are detected in 98% of cases in patients with perforation of dermatoses. Periodontal status in these patients, the status of OCD does not depend on the localization of

the rash elements, the MoP level in their structure is 63.27 ± 6.88% in limited lesions of the gums and alveolar tumor; UODTP 22.44 ± 5.45% (R> 0.05); MiP occurs in 14.29 ± 5.0% (R <0.05).

Periodontitis in patients with periodontal disease is characterized by inflammatory-destructive processes in periodontal tissue, characterized by poor oral hygiene and high gingival bleeding, and increases the severity of periodontal injury with increasing duration of periodontal disease (R <0.05); in addition, porosity in the jawbone area was reported at high rates in patients with purulent disease.

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