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## **2.2 Long-term results of treatment of patients with exarcebative course of generalized periodontitis in patients with manifestations of psychoemotional stress**

One of the factors that contributes to the emergence and development of generalized periodontitis in patients is a variety of disorders of the general condition of the patient. Against this background, the activation of periodontopathogenic microflora, which causes the development of inflammatory and dystrophic-inflammatory periodontal diseases occurs [167, 177, 179, 180, 186]. Among these systemic somatic factors of disease development an important place is occupied by stress factors, especially psycho-emotional stress [176, 184]. The presence of this powerful pathogenic factor should be taken into account in the comprehensive treatment of periodontal disease in patients with psycho-emotional stress.

In order to neutralize the manifestations of psycho-emotional stress, a set of drugs was proposed, which included zoxon, nicergoline and sibazone. Experimental biochemical and pathohistological studies show the periodontoprotective action of the proposed drug complex [169-172] and justify its use in clinical settings. Given the more pronounced manifestations of psycho-emotional stress in patients with exarcebative generalized periodontitis in the case of this complex for the treatment of patients with exarcebative generalized periodontitis 2 times increased doses of nicergoline (0.01 g 3 times a day) and sibazone (0, 01 g 3 times a day).

The aim of this study was to determine the long-term results of the clinical effectiveness of the modified proposed complex of adrenoblockers in the complex treatment of patients with generalized periodontitis of exarcebative course in the presence of psychoemotional stress.

This clinical study was conducted in a group of 70 patients with generalized periodontitis of I-II degree, exarcebative course and manifestations of psychological stress. The main subgroup consisted of 40 patients, in the control subgroup of the comparison there were 30 patients.

In the complex treatment of patients of the main subgroup used a modified enhanced complex of adrenoblockers to suppress the manifestations of psychological

stress. Patients in the control subgroup were treated similarly to patients in the main subgroup, but without the use of a modified complex of adrenoblockers.

The level of psychological stress was assessed using questionnaires (DASS-21; Spielberger-Khanin). [174]. All patients underwent thorough scaling and root planning of the subgingival surfaces of the tooth roots, so-called SRP therapy. Drug treatment of symptomatic gingivitis was performed according to its form - the exarcebative course of catarrhal gingivitis is the same in patients of both groups. The presence of inflammation in the gums was assessed using the Schiller-Pisarev test (1962) and the PMA index according to C. Parma (1961) [175, 182]. The state of oral hygiene was assessed using the OHI-S index (1964) [178] and the O'Leary index [180], the assessment of the level of gingival bleeding by the bleeding index PBI (HR Mühlemann, S. Son, 1971) [181]. In general, the condition of the periodontium was assessed using the periodontal index PI by A.L. Russel [185]. The diagnosis of periodontal disease was established according to the classification of NF Danilevsky [168]. The obtained results were processed by statistical methods using personal computers [173]. The effectiveness of the treatment was determined within 12 months after treatment.

The effectiveness of the treatment led to a significant improvement in the hygienic condition of patients in both subgroups. This was confirmed by the improvement of the hygienic index OHI-S in patients of the main group in 3.52 times from  $1.83 \pm 0.13$  points to  $0.52 \pm 0.05$  points.

In patients with I stage of generalized periodontitis of the main group, the hygiene index OHI-S decreased 3.38 times from  $1.59 \pm 0.09$  points to  $0.47 \pm 0.05$  points, in patients with stage II generalized periodontitis, the hygiene index decreased in 3.09 times from  $1.89 \pm 0.17$  to  $0.61 \pm 0.07$  points. After 12 months, the value of the hygienic index increased slightly to  $0.64 \pm 0.06$  points.

In patients of the control subgroup, the hygiene index decreased 2.19 times from  $1.73 \pm 0.17$  points to  $0.79 \pm 0.07$  points, which also corresponded to a good level of oral hygiene. In patients with stage I generalized periodontitis, the hygienic index of the oral cavity OHI-S decreased 2.46 times from  $1.65 \pm 0.16$  points to  $0.67 \pm 0.06$

points, in patients with stage II generalized periodontitis this index was reduced 2.07 times from  $1.84 \pm 0.17$  to  $0.89 \pm 0.07$  points. In the long term, after 12 months, the value of the hygienic index increased slightly to  $0.89 \pm 0.08$  points. These hygienic parameters in their value in patients of the main and control subgroups were statistically significantly ( $p < 0,05$ ) differed from each other.

The improvement of the hygienic condition of the oral cavity was also evidenced by the indicators of the periodontal index O`Leary. The treatment led to a decrease in the values of this index in patients of both subgroups. In patients with stage I generalized periodontitis of the main group, the periodontal index O`Leary decreased 5.05 times from  $55.13 \pm 5.1\%$  to  $10.91 \pm 0.91\%$ , in patients with stage II generalized periodontitis, the O`Leary index decreased 6.36 times from  $81.4 \pm 5.7\%$  to  $12.8 \pm 0.95\%$ . In general, patients in the main subgroup showed a decrease in the value of the periodontal index O`Leary in 4.92 times from  $60.33 \pm 5.4\%$  to  $12.25 \pm 0.91\%$ , after 12 months -  $13.45 \pm 0.94\%$ .

In the control group in the case of stage I generalized periodontitis, the value of the O`Leary periodontal index was reduced 4.29 times from  $62.1 \pm 5.2\%$  to  $14.5 \pm 0.93\%$ , and in patients with stage II generalized periodontitis O`Leary periodontal index was reduced 4.27 times from  $74.6 \pm 5.4\%$  to  $17.5 \pm 1.4\%$ . In patients of the control subgroup, the O`Leary index decreased 4.29 times from  $68.34 \pm 6.2\%$  to  $15.9 \pm 0.13\%$ , after 12 months - to  $17.33 \pm 0.97\%$ . Data were statistically significant ( $p < 0.05$ ) differed.

Patients had significantly reduced pathological mobility of the teeth. Only 7 (30.44%) of 23 patients with stage II disease had mobility of the lower front teeth of grade I. Inflammation in the gingiva according to the Schiller-Pisarev test was absent in 14 of 17 (82.35%) patients with stage I generalized periodontitis and in 14 of 23 (60.87%) patients with stage II generalized periodontitis. Inflammation in the gums according to the Schiller-Pisarev test was absent in 10 of 18 (55.56%) patients with I stage of generalized periodontitis and in 12 of 22 (54.55%) patients with II stage of generalized periodontitis. The value of this sample (iodine number Svrakov) in patients

of the main subgroup decreased 2.23 times from  $2.79 \pm 0.28$  before treatment to  $1.25 \pm 0.09$  after treatment and after 12 months was  $1.39 \pm 0.09$ .

In patients of the control group, it decreased by 1.84 times and was  $2.89 \pm 0.27$  before and  $1.57 \pm 0.09$  ( $p < 0.05$ ) after treatment; at the stage I decreased 1.81 times from  $2.59 \pm 0.26$  to  $1.43 \pm 0.14$  and at the stage II 1.83 times from  $2.95 \pm 0.29$  to  $1.61 \pm 0.16$ . In patients of the control subgroup, the value of the iodine test decreased 1.84 times from  $2.89 \pm 0.27$  before treatment to  $1.57 \pm 0.09$  after treatment and after 12 months was  $1.69 \pm 0.09$ . Data were statistically significant ( $p < 0.05$ ) differed.

The PMA index decreased after treatment 7.03 times from  $73.15 \pm 2.7\%$  to  $10.4 \pm 0.75\%$  after treatment and to  $13.9 \pm 0.79\%$  12 months after treatment. In the case of the stage I of generalized periodontitis of patients of the main group, the value of the PMA index was reduce 7.03 times from  $73.15 \pm 2.8\%$  to  $10.4 \pm 0.75\%$ . In the presence of stage II of generalized periodontitis, the PMA index was reduced 5.72 times from  $79.5 \pm 2.9\%$  to  $13.9 \pm 1.1\%$ . In the control group in the case of the stage I of generalized periodontitis, the value of the PMA index was reduced 5.68 times from  $78.9 \pm 2.8\%$  to  $13.9 \pm 0.7\%$ , and in patients with the stage II of generalized periodontitis, the value of the PMA index was reduced 5.55 times from  $82.2 \pm 2.7\%$  to  $14.8 \pm 0.9\%$ . In patients of the control subgroup, the value of the PMA index decreased after treatment 5.68 times from  $78.9 \pm 2.8\%$  to  $13.9 \pm 0.7\%$  after treatment, and to  $15.9 \pm 0.79\%$  after 12 months. These indicators of the index in their value in patients of the main and control subgroups were statistically significantly ( $p < 0,05$ ) differed from each other.

The complex treatment led to a decrease in the level of bleeding gums, as evidenced by the value of the PBI index. In the case of the stage I of generalized periodontitis of patients of the main group, the value of the PBI index decreased 3.98 times ( $p < 0.05$ ) from  $2.59 \pm 0.19$  points to  $0.65 \pm 0.06$  points. In the presence of II degree of generalized periodontitis, the PBI index was reduce by 3.45 times: from  $2.83 \pm 0.19$  points to  $0.82 \pm 0.07$  points. In patients of the main subgroup, it decreased 3.66 times from  $2.71 \pm 0.19$  points to  $0.74 \pm 0.07$  points, and to  $0.85 \pm 0.79\%$  12 months after treatment. In the control group in the case of I degree of generalized periodontitis, the value of the PBI index was reduced 3.08 times from  $2.59 \pm 0.19$  points to  $0.84 \pm$



0.07 points ( $p < 0.005$ ). In patients with stage II generalized periodontitis, the value of the PBI index was reduced by 3.11 times: from  $2.87 \pm 0.19$  points to  $0.92 \pm 0.08$  points. In patients of the control subgroup, the value of the PBI index decreased after treatment by 3.09 times from  $2.75 \pm 0.19$  points to  $0.89 \pm 0.08$  points after treatment, and to  $0.96 \pm 0.79$  points after 12 months. These indicators of bleeding gums in their value in patients of the main and control subgroups were statistically significant ( $p < 0,05$ ) differed.

There were some positive changes in the PI index after treatment: in the presence of the stage I of generalized periodontitis in patients of the main group, its value decreases 2.85 times from  $1.77 \pm 0.39$  points to  $0.62 \pm 0.06$  points. In the presence of the stage II of dystrophic-inflammatory process in patients of the main group, the value of the periodontal index decreased by 4.11 times from  $3.49 \pm 0.36$  to  $0.85 \pm 0.08$  points. In patients of the main group it decreases 3.85 times from  $2.65 \pm 0.5$  points to  $0.68 \pm 0.05$  points and after 12 months was  $0.76 \pm 0, 06$  points. In patients of the control group with stage I, the value of the periodontal index decreased 2.10 times from  $1.85 \pm 0.43$  points to  $0.88 \pm 0.02$  points; with the stage II of generalized periodontitis, the value of the PI index decreased 3.64 times from  $3.61 \pm 0.47$  points to  $0.99 \pm 0.07$  points. In patients of the control subgroup, the value of the PI index decreased after treatment 3.52 times from  $2.78 \pm 0.47$  points to  $0.79 \pm 0.08$  points after treatment, and to  $0.91 \pm 0.08$  points after 12 months. Data from patients of the main and control subgroups were statistically significant ( $p < 0.05$ ).

Conclusion. Thus, the obtained clinical and laboratory results of examination of patients in the long-term follow-up indicate the clinical effectiveness of the complex of adrenoblockers for the treatment of patients with generalized periodontitis with manifestations of psychosomatic stress.