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**EFFICIENCY IN NON-SURGICAL TREATMENT PHASE OF PATIENTS WITH SEVERE CHRONIC GENERALIZED PERIODONTITIS, A PRELIMINARY CLINICAL STUDY**

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**Introduction:** The principal reason of the complex destruction of dental structure is the pathogenic flora of dental pellicle, bacteria of which cause immune and inflammatory processes in periodontal tissues (Carranza, 2009). Untreated inflammatory and degenerative periodontal diseases, chronic generalized periodontitis (CGP) is the most widespread among them, lead to considerable destructions of connective tissue structures of alveolar area and, consequently, result in loss of natural teeth. The most appropriate way to deal with supra- and subgingival pellicle is to remove it mechanically, that is the essential condition in achieving the positive results and preventing the complications of periodontal diseases (Goodson, 1994). The restoration of biocompatible root surface, required for healing of periodontal pockets, is obtained by scaling, smoothing the root surface of a tooth and curettage. Due to the fact that bacteria can re-inhabit the periodontal pockets for a few weeks after active treatment, the periodic mechanical removal of subgingival bacterial substrate is required to prevent any recurrence of inflammations (Sbordone L. et al., 1990). The number of therapeutic measures is determined by various factors, including the degree of motivation and the patient’s facilities.

**Aim:** To determine the effectiveness of non-surgical (initial) stage during complex periodontal therapy in patients with chronic generalized severe periodontitis with a high level of motivation.

**Materials and methods.** The clinical study involved 10 patients (aged 45-55), non-smokers, with severe CGP and high level of motivation for treatment and carrying out the individual hygiene. Prior to treating, a periodontal card was made up, that included the local criteria of patients’ selection: index PI (O'leary, 1972)> 25%, index BOP (Ainamo, Bay, 1975)> 40%, the average depth of periodontal pockets (PPD)> 5 mm, the average clinical level of loss of epithelial attachment (CAL)> 5 mm. General criteria for selecting patients excluded antibiotics and oral antiseptics during the last three months, pregnancy, the presence of systemic diseases or the intake of medications that could affect the results of the clinical study. The protocol of management of periodontal pockets (PP) included: electromechanical removal of dental plaque, careful scaling and smoothing the root surface of a tooth, irrigation of PP (Н2О2 3%, chlorhexidine 0,2%), processing of PP by laser radiation (diode laser 940 μm, 2W/CW), application of the chlorhexidine gel 0,5% for 5 min. The traumatic occlusion was eliminated and the splinting of abnormally mobile teeth was carried out. All patients were prescribed the conventional local anti-inflammatory therapy and were given the standard recommendations for oral care. Mechanical and antiseptic treatment of PP was performed four times at intervals of three months due to fill in the periodontal card repeatedly. The paraclinical criteria of the condition of periodontal tissues such as indices PI and BOP and indicators PPD and CAL, the percentage of teeth with a favorable, doubtful and hopeless prognosis before the treatment and in 12 months, became the parameters of assessment of initial phase of conducted treatment.

**Results.** Before treatment, the average index of BOP in patients was 79%, the average index of PI - 86%, the average indicator of PPD - 5,8 mm, the average index of CAL - 5,3 mm. In a year of the treatment the average BOP index has decreased by 3,3 times to 24%, the average PI index has decreased by 2,4 times (to 26%), the average PPD indicator – by 2,1 times (to 2,7 mm), the average CAL indicator – by 1,2 times to 4,5 mm. The analysis of results of paraclinical parameters of non-surgical phase of periodontal therapy in 12 months has showed that the number of teeth with hopeless periodontal prognosis has decreased by 4,5 times (26,9%) and the number of teeth with doubtful periodontal prognosis has increased by 1,5 times (23,1%), the number of teeth with a favorable prognosis has increased by 1,1 times (3,8%).

**Conclusions.** The results of preliminary clinical studies indicate that carrying out the non-surgical (initial) stage in the complex periodontal therapy of patients with severe degree of CGP is pathogenetically justified and appropriate. Carrying out the non-surgical stage four times a year at intervals of three months helps to normalize the average index of bleeding and reduces significantly the depth of periodontal pockets; it also increases the number of teeth with a favorable (3,8%) and doubtful (23,1%) prognosis as well as decreases the number of surgical intervention. The highest effectiveness of non-surgical phase of treatment is achieved in patients with a high level of motivation, and depends on the degree of local and general risk factors.