

## 6. BIOSTIMULATION THERAPY IN THE COMPLEX TREATMENT OF PERIODONTAL DISEASE



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**Introduction.** In periodontal disease (PD), the advanced stage of damage to the periodontal elements is often irreversible. This necessitates a comprehensive treatment approach for gingivitis and periodontitis, including medication administration, surgical procedures, and maintenance treatment, including biostimulation therapy (PRP therapy). In the context of the therapeutic effects of platelet-enriched autologous plasma, the use of biostimulation therapy in PD can be justified by its beneficial properties, attributed to the content of growth factors and other biologically active substances that initiate the regeneration and recovery processes of partially or totally damaged tissues. The present growth factors stimulate and initiate the regeneration and recovery processes of affected tissues precisely in the area and location where the autologous plasma (injectable form) is introduced, through the interaction mechanism between the specific growth factor and the tissue receptors of the recipient area. The effect of biostimulation therapy begins within 30 minutes, and after a course of treatment, it persists from 6 months to 1 year.

**Aim of study.** Introducing biostimulation therapy into the complex treatment plan of periodontal disease.

**Methods and materials.** The "Plasmodent" technology was used as the material for biostimulation therapy (EBA-20 centrifuge, standardized Plasmodent tubes, accessories for collecting venous blood from the patient, consumables). Thirty-two patients with PD were included (9 with plaque-induced gingivitis and 23 with marginal periodontitis (MP) of various severity degrees, including severe MP/stage IV).

**Results.** As a result of using injectable biostimulation therapy in patients with PD at all stages of complex treatment, including the maintenance phase, good and very good clinical outcomes were achieved, expressed by a noticeable reduction in inflammation, suppression of gingival bleeding, reduction in tooth mobility, and an extension of the remission period in PD treatment (gingivitis, MP).

**Conclusion.** 1. Biostimulation therapy is a modern adjunctive method in the complex treatment of PD. 2. Autologous plasma used in biostimulation therapy serves as a safe and harmless "biological tool" for initiating and accelerating all natural regeneration and tissue recovery processes. 3. When using biostimulation therapy, any allergic reaction is excluded (as it is self-produced), and it is accessible and straightforward for use in the dental office.