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EVIDENCE-BASED JUSTIFICATION OF ALTERNATIVE THERAPEUTIC APPROACHES WITH HEMOSTAT AND CLOVE ESSENTIAL OIL PHYTOPREPARATIONS IN SEVERE CHRONIC GENERALIZED PERIODONTITIS

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Background

The widespread prevalence of periodontal tissue diseases, including severe chronic generalized periodontitis, has increased interest in the use of plant-based herbal remedies for treatment due to their safety and positive outcomes [1-3].

The aim of this study was to treat severe chronic generalized periodontitis using the liquid extract of the herbal remedy Hemostat as an alternative.

Materials and Methods

A total of 326 patients aged 41-60 years with a diagnosis of chronic generalized periodontitis (K05.5) were evaluated for periodontal tissue condition using a special chronological chart. Measurements were taken before treatment, as well as 10 and 20 days after treatment, based on eight clinical indicators: oral hygiene, quantitative and qualitative characteristics of the microflora of periodontal pockets, neutrophil infiltration, local allergic reactions, bleeding of periodontal pockets and gingival sulci, tissue repair, and atrophy of interproximal alveolar bone ridges [4-6]. Observations based on these eight indicators during the treatment of severe chronic generalized periodontitis led to the conclusion that, for eliminating pathology, the clinical effectiveness of the integral indicators demonstrates the possibility of using alternative methods when selecting oral antiseptics: liquid extract of the herbal remedy Hemostat followed by Clove Essential Oil and, with satisfactory results, the synthetic drug Chlorhexidine Bigluconate.

Result and Discussion

In the treatment of severe chronic generalized periodontitis , the use of natural local infusion and phytopreparations, in combination with the Chlorhexidine bigluconate preparation and applied separately in the second phase; in Group 1: oral hygiene (PMA = 46.7±6.8%; PI = 0.42±0.03), the number of microbes in the tooth-gum pocket (318.4±33.12 CFU/ml) and quality indicators (candidiasis - 10.7±0.24), neutrophil infiltration (8.43±0.33 cells), local allergic reactions (13.3±0.44), gum bleeding (24.4±0.24), tissue repair (3.3±0.34 mm). In the third phase, the following indicators were observed: in sequence - 29.1±2.6%; 0.3±0.01 (p = 0.082337); 94.32±27.42 CFU/ml (0.026199); 4.23±0.33 cells; 6.25±0.08; 14.2±0.18 (s = 0.000482); 1.6±0.01 mm. Positive indicators were significantly higher than those of Group 2 and markedly higher than those of Group 3. Additionally, there was a significant difference between Groups 1 and 3, as confirmed using various statistical methods.

Conclusion

The effect of the combination of Hemostat + Chlorhexidine bigluconate in the treatment of severe chronic generalized periodontitis showed significant positive results across 8 clinical parameters of periodontal tissue, with a sharp positive difference compared to the Chlorhexidine bigluconate preparation. Additionally, compared to the second phase, the third phase demonstrated that the use of Hemostat infusion led to a reduction in neutrophil infiltration and an improvement in the local immunomicrobiological environment, contributing to the activation of periodontal tissue vitality. This supports the scientific hypothesis of the integrated evaluation and proves the effectiveness of an alternative algorithm for treatment and prevention.

Keywords: Chlorhexidine bigluconate, Hemostat, Clove essential oil, dental pathologies, hygiene indicators, oral tissue physiology, herbal remedies, periodontal tissue inflammation.

References

1. Нурматова НТ, Гаффоров СА, Собиров АА. Анализ микробиоты слизистой ротовой полости у детей и подростков с хроническими формами гингивитов. Sciences of Europe, 149, 20-26. https://doi.org/10.5281/zenodo.13842678
2. Одилжонов ЖД, Собиров АА, Нурматова НТ. Парадонтитнинг Этиологияси, Диагностикаси, Клиникаси Ва Даволаш Усуллари Тугрисида Тадкикотлар Тахлили. Excellencia: International Multi-disciplinary Journal of Education, 2 (4), 499-505.
3. Казакова, Н. Н., & Собиров, А. А. (2020). Изучение влияния зубных паст на микробиоту ротовой полости. Актуальные вопросы фармакологии: от разработки лекарств до их рационального применения» Бухара, 36-38.
4. Даминова, Ш., Казакова, Н., & Собиров, А. (2020). Стоматологический статус у пациентов с воспалительными заболеваниями суставов. Дни молодых учёных, (1), 93-94.
5. Akhrarova Sh., S. A. (2024). Biochemical characteristics of oral cavity pathology in children and adolescents with cerebral palsy. Sciences of Europe, 144, 32-39. https://doi.org/10.5281/zenodo.12739920
6. Shamsiyeva, M. O., Gafforov, S. A., & Sobirov, A. A. (2024). Basing the formation of pathologies of the oral cavity in children and adolescents with cerebral palsy with the help of clinical and laboratory studies. Sciences of Europe, 144, 40-45. https://doi.org/10.5281/zenodo.12739930