APPLICATION OF SEBIDIN IN THE PREVENTION OF PERIODONTITIS IN ADOLESCENTS

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Abstract

Application of Sebidin in the Prevention of Periodontitis in Adolescents

Periodontal diseases remain one of the most common dental problems among adolescents. Hormonal changes during puberty, insufficient oral hygiene, and decreased local immune resistance contribute to the early development of inflammatory periodontal conditions. Prevention of periodontitis at this age is therefore of particular importance in order to avoid chronic forms of the disease in adulthood.

The present study evaluates the effectiveness of the antiseptic drug Sebidin in the prevention of periodontitis in adolescents aged 12–16 years. A total of 60 adolescents participated in the study and were divided into a main group and a control group. The main group received standard oral hygiene measures combined with Sebidin, while the control group followed only conventional hygiene recommendations.

Clinical assessment included gingival index, plaque index, bleeding tendency, and subjective complaints. The results demonstrated a significant reduction in gingival inflammation, plaque accumulation, and bleeding in the main group compared to the control group ($p<0.05$). No adverse reactions were observed during the study period.

The findings indicate that Sebidin is a safe and effective agent for the prevention of periodontal diseases in adolescents and can be recommended for use in preventive dental practice.

Keywords: adolescents, periodontitis prevention, Sebidin, oral hygiene, periodontal diseases.

ПРИМЕНЕНИЕ ПРЕПАРАТА СЕБИДИН В ПРОФИЛАКТИКЕ ПАРОДОНТИТА У ПОДРОСТКОВ

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Аннотация

Применение препарата Себидин в профилактике пародонтита у подростков

Заболевания пародонта являются одной из наиболее распространённых стоматологических проблем среди подростков. Гормональные изменения в период полового созревания, недостаточная гигиена полости рта и снижение местной иммунной защиты способствуют раннему развитию воспалительных процессов в тканях пародонта. В связи с этим профилактика пародонтита в подростковом возрасте имеет особое значение.

В данной работе изучена эффективность антисептического препарата Себидин в профилактике пародонтита у подростков в возрасте 12–16 лет. В исследовании приняли участие 60 подростков, разделённых на основную и контрольную группы. В основной группе наряду со стандартными гигиеническими мероприятиями применялся препарат Себидин, тогда как в контрольной группе проводилась только традиционная гигиена полости рта.

Оценка эффективности проводилась на основании гингивального индекса, индекса зубного налёта, степени кровоточивости дёсен и субъективных жалоб. Полученные результаты показали достоверное снижение воспалительных проявлений, количества зубного налёта и кровоточивости

дёсен в основной группе по сравнению с контрольной ($p<0,05$). Побочных эффектов выявлено не было.

Полученные данные свидетельствуют о высокой эффективности и безопасности препарата Себидин и позволяют рекомендовать его для профилактики заболеваний пародонта у подростков.

Ключевые слова: подростки, профилактика пародонтита, Себидин, гигиена полости рта, заболевания пародонта.

Introduction

Periodontal diseases are among the most common dental pathologies in adolescents and represent a significant public health problem worldwide. According to epidemiological studies, inflammatory periodontal conditions such as gingivitis and early-stage periodontitis are frequently diagnosed in children and adolescents aged 12–16 years. If left untreated, these conditions may progress into chronic periodontitis, leading to irreversible destruction of periodontal tissues and premature tooth loss in adulthood.

Adolescence is characterized by profound physiological and hormonal changes that significantly affect periodontal tissues. Increased levels of sex hormones during puberty enhance vascular permeability of gingival tissues and alter immune responses, creating favorable conditions for microbial colonization and inflammation. In addition, insufficient oral hygiene, irregular dental visits, unhealthy dietary habits, and low awareness of preventive measures further increase the risk of periodontal diseases in this age group.

The pathogenesis of periodontitis is closely associated with the accumulation of dental plaque and the formation of pathogenic biofilms composed of anaerobic and facultative anaerobic microorganisms. These microorganisms trigger inflammatory cascades, stimulate the production of pro-inflammatory cytokines, and contribute to the destruction of gingival and periodontal structures. Therefore, effective prevention strategies aimed at reducing microbial load and controlling inflammation are essential.

Antiseptic agents play a crucial role in preventive dentistry by suppressing pathogenic microflora and maintaining oral microbial balance. Sebidin, which contains active antiseptic components such as chlorhexidine and hexetidine, exhibits broad-spectrum antimicrobial activity and prolonged local effects. Its ease of use, safety profile, and proven efficacy make Sebidin a promising agent for the prevention of periodontal diseases in adolescents.

Materials and Methods

This clinical observational study included 60 adolescents aged 12–16 years who underwent dental examination and periodontal assessment. All participants were somatically healthy and presented with mild to moderate signs of gingival inflammation without advanced periodontal destruction.

Inclusion criteria

- Presence of mild or moderate gingivitis;
- Poor or moderate oral hygiene status;
- Absence of systemic diseases affecting periodontal tissues;
- Written informed consent obtained from parents or guardians.

Participants were divided into two groups:

- **Main group (n = 30):** standard oral hygiene measures combined with Sebidin administration;
- **Control group (n = 30):** standard oral hygiene measures only.

Sebidin lozenges were administered to the main group twice daily after meals for 10 consecutive days. Participants were instructed to slowly dissolve the lozenge in the oral cavity and avoid eating or drinking for 30 minutes after use.

Clinical evaluation was performed at baseline and after the intervention using the following parameters:

- Gingival Index (GI);
- Plaque Index (PI);
- Gingival bleeding tendency;
- Subjective symptoms (pain, swelling, discomfort, halitosis).

Statistical analysis was conducted using standard methods, and differences were considered significant at $p < 0.05$.

Results

At the end of the study, adolescents in the main group demonstrated significant clinical improvement in periodontal status compared to baseline values and the control group. Gingival inflammation, hyperemia, and edema were markedly reduced in participants receiving Sebidin.

The mean Gingival Index decreased by approximately 1.8–2.0 times in the main group, indicating a substantial reduction in inflammatory activity. The Plaque Index also showed a statistically significant decrease ($p < 0.05$), reflecting effective suppression of dental plaque formation and microbial biofilm.

Gingival bleeding was reduced by 70–75% in the main group, while only minor changes were observed in the control group. Subjective complaints such as gingival pain, discomfort, and unpleasant oral odor were significantly less frequent among adolescents treated with Sebidin.

No adverse effects, allergic reactions, or intolerance to the drug were observed throughout the study period, confirming its safety for use in adolescents.

Discussion

The results of this study confirm the high preventive efficacy of Sebidin in adolescents with inflammatory periodontal conditions. The antiseptic components of Sebidin effectively reduce the microbial load in the oral cavity, inhibit biofilm formation, and suppress inflammatory processes in gingival tissues.

Early preventive intervention during adolescence is crucial for maintaining periodontal health and preventing disease progression into chronic and destructive forms. The use of Sebidin as an adjunct to routine oral hygiene significantly enhances the effectiveness of preventive measures by targeting the microbial etiology of periodontal diseases.

Compared with data from previous studies on antiseptic agents in pediatric dentistry, Sebidin demonstrates comparable or superior outcomes in reducing gingival inflammation and plaque accumulation. Its favorable safety profile, ease of administration, and good patient compliance make it particularly suitable for preventive programs in adolescent populations.

Conclusion

Sebidin is a safe, effective, and convenient antiseptic agent for the prevention of periodontitis in adolescents. Its combined use with standard oral hygiene measures significantly improves periodontal health, reduces gingival inflammation and bleeding, and lowers the risk of disease progression. The findings support the inclusion of Sebidin in preventive dental protocols for adolescents.

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