

COMPARATIVE EVALUATION OF COMPREHENSIVE AND CONVENTIONAL THERAPEUTIC STRATEGIES IN PATIENTS WITH CHRONIC VIRAL HEPATITIS B

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Abstract

This article presents the findings of a study evaluating the dental status of patients with chronic viral hepatitis B (CHB). The frequency of key oral symptoms and pathologies was assessed depending on the type of therapy received, and the results were compared with those of a control group. The data obtained confirm that the oral cavity reflects the overall somatic condition of the body and becomes involved in the pathological process associated with chronic viral hepatitis.

Keywords: Chronic viral hepatitis B, dental status, oral cavity, gingivitis, periodontitis, comprehensive therapy.

Introduction

Chronic viral hepatitis B (CHB) remains a pressing issue in modern medicine, as this condition is frequently accompanied by systemic manifestations involving multiple organs, including the oral cavity. Patients with CHB often present with inflammatory lesions of the oral mucosa, periodontal disease, and subjective complaints such as xerostomia, bitter taste, and halitosis. These manifestations negatively affect patients' quality of life and necessitate a comprehensive therapeutic approach. Despite the application of conventional treatment methods, there is a continuing need to develop and implement more effective therapeutic strategies that combine systemic and local interventions.

Objective

To evaluate and compare the effectiveness of comprehensive versus conventional therapy in patients with chronic viral hepatitis B using dental health indicators.

Materials and Methods

The study included patients with chronic viral hepatitis B (CHB) who were under dynamic observation. Depending on the treatment regimen, they were divided into two subgroups:

- **Subgroup A** – patients receiving comprehensive therapy, combining systemic treatment with local dental interventions;
- **Subgroup B** – patients receiving conventional therapy only.





Evaluation was performed using a set of dental indicators, including gingival bleeding, xerostomia, bitter taste, mucosal soreness, halitosis, dental plaque and calculus, prevalence of periodontal disease, and inflammatory lesions of the oral mucosa. Statistical analysis was conducted using the significance criterion ($p < 0.05$).

Results

In both treatment groups, statistically significant improvement in oral health indicators was observed after therapy. However, in the subgroups that received comprehensive treatment, the positive outcomes were more pronounced, demonstrating the superiority of the combined systemic and local therapeutic approach.

In subgroup 1A, gingival bleeding was recorded in 33% of patients (5 out of 15), compared with 60% in subgroup 1B (9 out of 15), $p < 0.05$. In subgroup 2A, the frequency was 36% (5 out of 14), whereas in subgroup 2B it was also higher at 60% (9 out of 15), $p < 0.05$.

Xerostomia was reported by 26% of patients in subgroup 1A (4 out of 15) versus 33% in subgroup 1B (5 out of 15). In subgroup 2A, oral dryness was present in 40% of patients (6 out of 15), while in subgroup 2B it was reported in 27% (4 out of 15). This symptom reflects impaired salivary secretion in CHB patients, but the use of moisturizing gels as part of comprehensive therapy minimized the severity of dryness.

In subgroup 1A, bitter taste in the mouth was noted in 35% of patients (5 out of 15), whereas in subgroup 1B it was significantly higher at 53% (8 out of 15), $p < 0.05$. In subgroup 2A, the frequency was 34% (5 out of 15), while in subgroup 2B it was 46% (7 out of 15). This reduction is associated with improvement in bile duct function and reduction of bile reflux in patients undergoing comprehensive therapy.

Oral mucosal pain. Pain in the oral cavity was present in 13% of patients in subgroup 1A (2 out of 15), compared with 33% in subgroup 1B (5 out of 15), $p < 0.05$. In subgroup 2A, the symptom was noted in 20% of patients (3 out of 15), whereas in subgroup 2B it was reported in 27% (4 out of 15). The reduction in pain was attributed to the use of local anti-inflammatory therapy and improved hepatic function.

Halitosis was identified in 33% of patients in subgroup 1A (5 out of 15), compared with 46% in subgroup 1B (7 out of 15). In subgroup 2A, it was present in 40% of patients (6 out of 15), while in subgroup 2B it was detected in 29% (4 out of 14). The decrease in halitosis with comprehensive therapy is explained by improved oral hygiene and reduced oral inflammation.

Dental plaque and calculus. In subgroup 1A, plaque and calculus were present in 40% of patients (6 out of 15), compared with 60% in subgroup 1B (9 out of 15), $p < 0.05$. In subgroup 2A, these findings were reported in 33% of patients (5 out of 15), while in subgroup 2B they were considerably higher at 67% (10 out of 15). Regular professional dental hygiene procedures within comprehensive treatment contributed to the reduction of plaque and calculus.

Periodontal disease. The prevalence of periodontal disease was higher in the subgroups receiving conventional treatment: 53% in subgroup 1B and 60% in subgroup 2B. By contrast, the frequency was 40% in subgroup 1A and 33% in subgroup 2A, $p < 0.05$.





Inflammatory lesions of the oral mucosa. Inflammatory mucosal lesions were significantly less frequent in the comprehensive therapy groups, with a prevalence of 13% in subgroups 1A and 2A, compared with 34% in subgroup 1B and 27% in subgroup 2B.

Glossitis was detected only in the conventional therapy subgroup 1B (7% or 1 out of 15 patients), indicating insufficient efficacy of standard treatment in preventing inflammatory conditions of the tongue.

Interpretation of Results

The results of the present study clearly demonstrate the advantage of comprehensive therapy, which includes local dental interventions, over conventional treatment in patients with CHB. The addition of targeted local measures significantly reduced the incidence of gingival bleeding, oral mucosal pain, bitter taste, and other subjective complaints. Furthermore, it effectively lowered the prevalence of periodontal disease, decreased the formation of plaque and calculus, and contributed to the overall improvement of oral health.

These outcomes confirm that the oral cavity and associated tissues actively reflect the systemic pathological processes occurring in chronic viral hepatitis B and therefore require special therapeutic attention. The incorporation of dental care into the management of CHB patients is essential for both preventing oral complications and improving patients' quality of life.

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