COMPARATIVE EVALUATION OF THE ANTI-MICROBIAL AND ANTI-INFLAMMATORY EFFICACY OF TWO COMMERCIALLY AVAILABLE MOUTHWASHES - A CLINICO-MICROBIOLOGIC STUDY.



By

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ABSTRACT

Background and Objectives: Gingivitis, the mildest form of periodontal disease, is highly prevalent and readily reversible by simple, effective oral hygiene. Chemical agents are used as an adjunct to mechanical therapy to reduce gingival inflammation. Anti-inflammatory and antiplaque oral rinses reduce inflammation by removing or inhibiting plaque formation. The aim of this randomized controlled clinical trial was to evaluate the anti-microbial and anti-inflammatory efficacy of two commercially available mouthwashes namely Rexidin® and Befresh®.

Materials & Methods: Antimicrobial activity of the mouthwashes was analyzed by evaluating their MIC in vitro. The anti-inflammatory efficacy was evaluated in eighty four subjects in this study which was conducted over a period of 2 weeks and were randomly divided into four groups of 21 each based on their gingival index (GI) score (score of ≤2). The groups were as follows - Group 1: subjects receiving only scaling and root planing, Group 2: subjects receiving scaling and root planing and a placebo mouthwash, Group 3: subjects receiving scaling and root planing and chlorhexidine mouthwash, and Group 4: subjects receiving scaling and root planing and the herbal mouthwash. PI, GI and mSBI of the subjects were recorded at baseline and 14 days.

Results: Plaque and gingival inflammation reduced in all the four groups at the end of 14 days with Group 3 (CHX) showing more amount of reduction. Group 4 (herbal mouthwash) showed statistically significant better clinical outcomes when compared to Group 1 and 2 (p value =0.001) and showed comparable results with that of Group 3.

Conclusion: The herbal mouthrinse Befresh® had antimicrobial and anti-inflammatory effects comparable to that of 0.2% CHX and it can also be safely prescribed as an adjunct to scaling and root planing.

Key words: Gingivitis; gingival inflammation; herbal mouthwash; chlorhexidine; gingival index; plaque index.