International Journal of Dental Hygiene

# A RANDOMIZED DOUBLE-BLIND CLINICAL TRIAL TO EVALUATE THE EFFICACY OF CHLORHEXIDINE, ANTIOXIDANT, AND HYALURONIC ACID MOUTHWASHES IN THE MANAGEMENT OF BIOFILM-INDUCED GINGIVITIS

Ali A. Abdulkareem, Zaid A. Al Marah, Hayder R. Abdulbaqi, Ali J. Alshaeli, Mike R. Milward

First published: 26 February 2020 https://doi.org/10.1111/idh.12432Citations: 7

#### **Abstract**

# **Objectives**

To investigate the antiplaque and antigingivitis efficacy in addition to evaluating side effects and subjects' perceptions of three commercially available mouthwashes.

### Methods

This study was a double-blind, parallel, and short-term trial. A total of 75 dental students with biofilm-induced gingivitis were included in the final analysis of the current study. Clinical parameters (plaque index and bleeding on probing) and the staining effect were measured at baseline and after 7 days. In addition, a VAS-based assessment questionnaire was completed by the participants.

### **Results**

All interventions significantly reduced plaque scores, but chlorhexidine (CHX) had a significantly higher effect than the hyaluronic acid (HA) and antioxidant mouthwashes. However, all mouthwashes significantly reduced the total bleeding scores to <10% in 53% of the patients, compared to the baseline record. Additionally, teeth underwent shade changes in association with all interventions by the end of the study. Analysis of feedback about the mouthwashes showed that the participants seemed to prefer the HA mouthwash over the other mouthwashes.

## **Conclusions**

**CHX remains the most effective antiplaque mouthwash** although HA and antioxidants are as effective as CHX in reducing bleeding.

#### **CONFLICT OF INTEREST**

All authors declare no conflicts of interest related to this work, with no financial relationships between any author and any of the products used in this study.