

Clinical Comparison of Anti-plaque Efficacy Between Iranian and Spanish Mouthwashes Containing 0.12% Chlorhexidine and 0.05% Sodium Fluoride

Esfehanian V¹, Farhad Shz¹, Nasirian², Memarian J³

¹ Assistant Professor, Periodontics Dept, School of Dentistry, Azad University, Esfahan, Iran

² Dentist

³ Post Graduate Student, Periodontics Dept, School of Dentistry, Azad University, Esfahan, Iran

Abstract

Background and Aim: Chlorhexidine is the most effective substance for chemical removal of dental plaque and is recognized as a golden standard regarding anti-plaque efficacy. The present study aimed to evaluate and compare the anti-plaque efficacy of Kin - Gingival and Epimax mouthwashes. Both these mouthwashes contain the same amount of 0.12% chlorhexidine and 0.05% sodium fluoride.

Materials and Methods: This intervention - experimental study involved 14 participants. Plaque indices were minimized and the participants were instructed on how to use the mouthwash (10cc of mouthwash, every 12 hours for 60 seconds). Afterwards, the subjects were divided into two groups of seven. The study involved no other plaque control method. The first group initially used the Iranian mouthwash for a week. After 10 days of rest period and minimizing the plaque index again, they used the foreign mouthwash for a week.

The second group initially used the foreign mouthwash for a week. After 10 days of rest period and minimizing the plaque index again, they used the Iranian mouthwash for a week. The results were analyzed by paired-t test.

Result: The mean plaque indices of whole mouth ($P=0.04$), mandible ($P=0.03$) and the posterior region ($P=0.006$) after using the foreign mouthwash were significantly lower compared with the values after using the Iranian type. There was no significant difference between the two mouthwashes in maxilla ($P=0.12$) and the anterior region ($P=0.29$). The mean plaque indices related to the Iranian mouthwash were not significantly different between the upper and lower jaws ($P=0.54$), but the mean plaque index was significantly lower in the anterior region compared with the posterior region ($P=0.003$). The mean plaque indices related to the foreign mouthwash were not significantly different between the upper and lower jaws ($P=0.32$), but the mean plaque index was significantly lower in the anterior region compared with the posterior region ($P=0.002$).

Conclusion: Overall, the foreign mouthwash was more efficient in plaque removal in the posterior mandible compared with the Iranian mouthwash. Both Iranian and foreign mouthwashes were more efficient in the anterior region, whereas they showed no difference in their impacts between the upper and lower jaws.

Keywords: *Dental plaque index, Mouthwashes, Fluoride, Chlorhexidine*