The Effectiveness of Commercialized Oral Rinses in Reducing Plaque Microbes.
Momal Najib Md Razi, Emron Aznan, Wan Himratul Aznita Wan Harun
(Faculty of Dentistry, University of Malaya, Kuala Lumpur)

Purpose of study: To compare the effectiveness of antimicrobial compound in commercialized oral rinses, chlorhexidine (Oradex®) and hexetidine (Bactidol®) in reducing plaque microbes and also to determine the duration of controlling plaque microbes.

Materials and Method: The experiment was performed by enabling both mouth rinses and a negative control rinse (distilled water) to be tested on the volunteers for a period of 30 minutes interval for up to 120 minutes. The tooth surfaces of each volunteer were swabbed before rinse and immediately after rinse with the specified oral rinses. Swab samples were taken again after 30, 60 and 120 minutes. Samples were serially diluted and plated on BHI agar and incubated overnight at 37°C. The phenotypic appearance and the colony forming units (CFU/ml) were obtained in the study.

Result: Bacterial CFU were found to be significantly reduced with the use of oral rinses. Hexetidine showed the highest inhibition level immediately after rinse with 39.46% reduction, whereas chlorhexidine was able to reduce the dental plaque microbes by 24.41% after rinse. Chlorhexidine was found to exhibit a better controlling effect as inhibition was prolonged up to 120 minutes. In contrast, hexetidine was able to reduce the plaque microbes immediately after rinse but could not maintain the inhibition effect and the CFU of the plaque microbes was observed to slowly increase with time.

Conclusion: The study showed the efficacy of both mouth rinses in reducing dental plaque microorganism with hexetidine being more effective than chlorhexidine in reducing the dental plaque microbes after rinsing but chlorhexidine has a longer suppression effect compared to hexetidine.