

Efficacy of different mouthwashes in the reduction of Halitosis: A randomized, clinical trial

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Background: Halitosis is the unpleasant and offensive odour in exhaled air; that associated with the presence of Volatile Sulfur Compounds (VSC). Different methods including mouthwashes have been used to treat halitosis.

Objectives: to test and compare the effect of a mouthwash contained 0.05% chlorhexidine, 0.05% cetylpyridinium chloride and 0.14% zinc lactate (CHX-CPC-Zn) and antioxidant (AO) mouthwash on VSC.

Methodology: Thirty five (n=35) subjects with confirmed halitosis were recruited from College of Dentistry /King Saud University to participate in a single center, randomized, double blind, placebo- controlled, crossover clinical trial. At baseline visit a breath sample was taken and analyzed for the level of hydrogen sulphide (H₂S), methyl mercaptan (CH₃SH), and dimethyl sulphide (CH₃SCH₃) using portable gas chromatography(OralChroma™). Two mouthwashes were randomly provided to each subject in addition to saline solution (NaCl 0.9%) as negative control. Subjects were instructed to rinse with 20 ml of the mouthwash for 1 minute twice daily for 2 weeks. At the second visit, post-treatment breath sample was taken. Afterward, the patient was asked to refrain from using mouthwash for a washout period of 1 week. A similar procedure was repeated for each mouthwash interval. Results: No significant differences in VSC level between all three groups were detected at baseline. A significant reduction in VSC level was noticed after using CHX-CPC-Zn mouthwash. On the other Hand, both AO mouthwash and saline, had no significant impact on VSC.

Conclusion: This study has shown that CHX-CPC-Zn mouthwash has a significant effect in VSC level reduction in subjects with confirmed halitosis. In addition, using antioxidant mouthwash regularly for 2 weeks did not have any impact in improving the level of halitosis.

Biography:

Duaa Ali Alsaffar is a Graduate Student at Division of Periodontics, College of Dentistry/ King Saud University. Dr. Alsaffar completed her dental education at King Saud University and received Bachelor degree in Dental Surgery at 2006. She had her internship training for 12 months at King Fahad Military Medical Complex (KFMMC), Dhahran including: General Dentistry, Maxillofacial Surgery, Pedodontic, Periodontics and dental treatment under GA. She has been working at Armed Forces Hospital since January 2007. She is currently a Graduate Student in Master of Science Program in Periodontics (College of Dentistry/ King Saud University).