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SESSION THREE: DAY 2 (Morning)
Treatment Part I: Dentifrice/Mouthrinse
Moderator: Dr. Tonzetich

Clinical and Microbiological Effects of an Antimicrobial Mouthrinse in Oral Malodor

S. Roldan*, D. Herrera, M. Sanz

Section of Periodontology and Laboratory of Microbiology. University Complutense,
Madrid, Spain.

The purpose of the present study was to evaluate in a population of non-periodontitis patients, the effects of a newly formulated mouthrinse containing chlorhexidine, cetylpyridinium chloride and zinc lactate (Halita[®]), on clinical and microbiological parameters. Materials & methods: Eight subjects complaining or oral malodor were included in a double-blind placebo-controlled parallel study design. Entrance criteria required a score >1 on a 0-5 organoleptic scale, VSC level >170 ppb (Halimeter[®]) and a tongue coating score according to the Tongue Coating Index. Untreated periodontitis with probing pocket depths ≥ 4 mm and intake of antibiotics in the previous month were the exclusion criteria. Patients enrolled in the study abstained from oral hygiene and ingestion of food and liquids eight hours before examinations. At baseline examination the following variables were recorded: full-mouth odor organoleptically; two consecutive measurements of VSC levels by means of Halimeter[®]; Tongue Coating Index, and standardised microbiological samples from the tongue dorsum and from unstimulated whole saliva for culture analysis (total aerobic and anaerobic counts, numbers and proportions of *P. gingivalis*, *P. intermedia*, *B. forsythus*, *F. nucleatum*, *P. micros aerobius*). Patients were randomly assigned to the test or placebo group, and instructed to gargle with the mouthrinse twice daily during one minute for a period of two weeks. After the treatment phase the same variables were recorded. T-test was used to analyze intra and intergroup differences. Results & Discussion: the tested mouthrinse obtained higher mean reductions in organoleptic scores (-1 (0.5) vs. 0(0)) ($p < 0.01$) and VSC values (-134 ppb (141) vs -10 ppb (112))(NS) as compared with the placebo. Tongue coating scores remained unchanged in both groups. Regarding microbiological parameters, test was able to reduce total anaerobic counts in tongue ($-2.7 \cdot 10^6$ CFU ($2.8 \cdot 10^6$) vs $-8.1 \cdot 10^5$ (CFUs ($3.8 \cdot 10^6$))(NS); and saliva samples ($-1.4 \cdot 10^8$ CFUs ($1.3 \cdot 10^8$) vs $1.7 \cdot 10^8$ CFUs ($2.4 \cdot 10^8$))(NS). By contrast, total aerobic counts ($1.4 \cdot 10^6$ CFUs ($4.8 \cdot 10^6$) vs $-7.1 \cdot 10^5$ CFUs ($1.2 \cdot 10^6$))(NS) and the number of aerobic colonies (1.8 (2,4) vs 0.3 (1))(NS) in tongue samples increased in the test group. Total aerobic counts in saliva samples decreased in both groups ($-1.3 \cdot 10^7$ CFUs ($5.8 \cdot 10^7$) vs $-2.4 \cdot 10^7$ CFUs ($8.2 \cdot 10^7$))(NS) Conclusions: the tested mouthrinse was statistically significant more effective in improvement of organoleptic values than placebo, Halita[®] showed higher trend to reduce anaerobic tongue and saliva microflora and to increase aerobic tongue microflora than placebo.

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