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Effect of Different Tablets With Zinc Lactate on VSC

P. Porciani, C. Perra, S. Grandini
University of Siena, Siena, Italy

Objectives To assess the efficacy of two sugar-free tablets of different weights containing the same quantity of zinc lactate on oral VSC for 2 hours versus placebo.
Methods Eligible participants had to have at least 24 teeth, no oral or systemic diseases, no removable dentures. They had to avoid professional oral hygiene and drugs for two weeks, brushing teeth, smoking, assuming alcohol, coffee, tea, onion, garlic, licorice for six hours before the test. They had to score the basal measurement of VSC ≥75 ppb. Subjects were randomly assigned to the groups. The test tablets contained 0.51mg zinc lactate, but they were in two different weights (0.7g or 1g); the placebo tablet was 1g without zinc. The OralChroma2© device was utilized to measure the oral VSC at baseline, after sucking one tablet and after 30 minutes, 1 hour and 2 hours. Data were analyzed with SPSS.
Results 90 subjects completed the trial (30 in each group). None reported problems linked to the assumption of zinc lactate. The mean reductions of total VSC from baselines at the end of tablets sucking, after 30 minutes, 1 hour and 2 hours were statistically significant in all the test groups but not in the control group as shown in Table I. The comparisons between each test group and the control group showed a statistically significant difference for reductions at the end of the sucking period ($p<0.005$), after 30 minutes ($p<0.001$), after 1 hour ($p<0.001$) and after 2 hours ($p<0.01$), no statistical difference was reported between the test groups at any time.
Conclusions Tablets containing the same dose of zinc lactate, even with different weights, can statistically significantly reduce the oral VSC levels immediately and for over 2 hours. Moreover, all test tablets reduce oral VSC significantly more than placebo over time.