

‘Efficacy of a low-concentration chlorhexidine mouth rinse in non-compliant periodontitis patients attending a supportive periodontal care programme: a randomized clinical trial’

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AIM

To assess the clinical and microbiological efficacy of a 0.05% chlorhexidine and 0.05% cetylpyridinium chloride mouth rinse in supportive periodontal care (SPC) in patients with inadequate plaque control

MATERIAL & METHODS

The study was a randomized, double-blinded, placebo-controlled clinical trial in patients with moderate to severe chronic periodontitis under SPC with an inadequate plaque control (Turesky index > 1). After supragingival prophylaxis and oral hygiene reinforcement, participants rinsed twice a day for 3 months with the test or placebo solutions, in addition to conventional hygiene. Primary clinical outcome variables included plaque and gingival indices. As secondary outcomes, periodontal and microbiological variables were studied. ANCOVA and chi-squared tests were used to compare the variables.

RESULTS

Forty-seven patients (22 placebo and 25 test group) participated. After 3 months, plaque levels increased in the placebo group, while diminished in the test group ($p < 0.001$). Similar effects were found for bleeding on probing. The other clinical parameters did not show significant differences. Microbiological variables demonstrated inter-group significant reductions in subgingival counts of *Fusobacterium nucleatum* and *Prevotella intermedia* and a decrease of the total bacterial counts in saliva.

	Placebo			Test			<i>p</i> inter-group
	mean	SD	<i>p</i> intra	mean	SD	<i>p</i> intra	
Gingival index	-0.40	0.70	0.019	-0.52	0.65	0.001	0.568
Plaque index	0.16	0.72	0.325	-0.76	0.64	0.000	0.000
Mean probing pocket depth	-0.09	0.32	0.206	-0.19	0.34	0.010	0.318
Mean % of 1–3 mm pockets	3.70%	6.97%	0.021	6.60%	10.21%	0.004	0.257
Mean % of 4–6 mm pockets	-3.28%	6.39%	0.025	-6.46%	10.07%	0.004	0.198
Mean % of >6 mm pockets	-0.29%	1.11%	0.239	0.00%	0.41%	0.955	0.255
Bleeding on probing	0.33%	18.50%	0.936	-11.00%	14.60%	0.001	0.029
Mean clinical attachment level	-0.27	0.38	0.004	-0.15	0.43	0.087	0.329
Mean % of 1–3 mm CAL	6.71%	10.75%	0.010	3.50%	10.17%	0.098	0.307
Mean % of 4–6 mm CAL	-4.52%	10.83%	0.070	-3.33%	8.56%	0.063	0.685
Mean % of >6 mm CAL	-2.08%	3.60%	0.016	-0.23%	5.05%	0.825	0.155

CONCLUSIONS

The tested mouth rinse demonstrated efficacy in reducing plaque and gingivitis, as well as in decreasing the microbial load in saliva and gingival sulcus.

PRACTICAL IMPLICATIONS

This clinical study demonstrated the efficacy of a low-concentration chlorhexidine mouthrinse in reducing plaque levels and bleeding on probing scores, as well as a microbiological impact at both the salivary and the subgingival niches. These effects may improve the clinical conditions of treated periodontitis patients with an inadequate mechanical plaque control.