

## **‘Microbiological effects of an antiseptic mouthrinse in irradiated cancer patients’**

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### **INTRODUCTION**

Oral mucositis and xerostomia are common complications in patients with non-surgical anti-tumor therapy. In patients with head and neck radiation therapy, these complications can favor an alteration of the oral microbiota, finding higher prevalence of certain oral pathogens. Chlorhexidine (CHX) can prevent and reduce bacterial and fungal colonization of the oral cavity. There have been developed new formulations of chlorhexidine whose use is associated with fewer side effects.

### **AIM**

Evaluate the microbiological effect of an antiseptic mouthwash containing CHX and cetylpyridinium chloride (CPC), in patients with head and neck radiotherapy.

### **MATERIAL & METHODS**

A parallel, double-blind, prospective and randomized clinical trial was done. 36 patients with head and neck cancer were included who were randomly assigned to one of two treatments: test mouthwash or control. Patients in the test mouthwash used PERIO • AID<sup>®</sup> treatment (0.12% CHX + 0.05% CPC) and the control group used a placebo identical to the test mouthwash but without the active ingredients. Patients were required to carry out their usual oral hygiene and then to use 15 ml of the assigned mouthwash for 30 seconds, twice a day (morning and evening).

3 visits [baseline (start of radiotherapy), 14 and 28 days] were scheduled. Subgingival, tongue and oral mucosa samples were taken. Microbial population was assessed in different areas.

## RESULTS

En las muestras subgingivales, de mucosa y de lengua, se observaron reducciones significativas de *Candida spp.* En el área subgingival se produjo una disminución de *P. gingivalis*, *C. rectus* y *E. corrodens*. Además, se produjeron cambios menores respecto a *P. intermedia*, mientras que aumentaron en el grupo placebo. In all subgingival, tongue and oral mucosa samples, significant reductions of *Candida spp.* were observed. In the subgingival area there was a decrease of *P. gingivalis*, *C. rectus* and *E. corrodens*. In addition, minor changes were made regarding *P. intermedia*, while they increased in the placebo group.

## CONCLUSIONS

Given the limitations of the study, it suggests that the mouthwash formulated with CHX and CPC has significant benefits at microbiological level in patients with head and neck radiotherapy.

### PRACTICAL IMPLICATIONS

**The use of PERIO-AID® Treatment in patients with head and neck radiotherapy decreases bacterial populations associated with oral pathologies**