Altern Integr Med 2015, 4:3
http://dx.doi.org/10.4172/2327-5162.S1.011

OMICS International
conferenceseries.com

3rd International Conference and Exhibition on
Traditional & Alternative Medicine
August 03-05, 2015 Birmingham, UK

A new red propolis mucoadhesive gel: Antimicrobial activity against some oral pathogens

Vagner Rodrigues Santos, Cinthia Figueiredo, Flavio Henrique Abreu Rosa, Adelia Cristina de Souza Araujo, Tatiana Guimaraes Ribeiro, Andre Augusto Gomes Faraco, Miriam Tereza Paz Lopes and **Raquel Oliveira Castilho**
University Federal of Minas Gerais (UFMG), Brazil

In Brazil, red propolis was recently discovered and it originates from Dalbergia ecastophilum, a plant found in wet lands of the states of Paraiba and Alagoas in Brazil's northeast region. The Brazilian red propolis has been shown to be a powerful antimicrobial, however, is less studied against oral microorganisms. The aim of this study was to investigate the antimicrobial activity of a mucoadhesive gel of a Brazilian red propolis against microorganisms involved in the etiology of infections in the oral cavity. For this purpose, we used two gels with propolis concentrations of 5% (RPG 5%) and 10% (RPG 10%) compared with chitosan gel base 5% (CHG), propolis extract 5% (FRP 5%) and chlorhexidine 0.12% (CHX). The products were tested against *S. mutans, S. salivarius, S. sanguinis, L. casei, A. actinomycetemcomitans, E. faecalis, P. gingivalis, F. nucleatum, and C. albicans* ATCC all standards. The Minimum Inhibitory Concentration, Minimal Bactericidal Concentration and agar diffusion tests were performed according to CLSI standards. The results showed that all microorganisms were inhibited by propolis gel. The isolated extract of propolis was significantly more effective than all other products tested including chlorhexidine. However, differences were observed in responses between microorganisms such as *F. nucleatum* was more sensitive to RPG10% (16.6±2.02), while *A. actinomycetemcomitans* was more sensitive to RPG 5% (25.0±0.00). Even presenting antimicrobial properties, CHG did not affect the mechanism of action of propolis on the other hand; molecular synergism was not demonstrated in agar. In vivo and clinical trials studies should be performed to confirm these parameters.

vegneer2003@yahoo.com.br

Notes: