

# The antifungal properties of chlorhexidine digluconate and cetylpyridinium chloride on oral Candida

Type: Article

Abstract:

Introduction: *C. tropicalis* and *C. krusei* have emerged as virulent species causing oral infections. Both have developed resistance to commonly prescribed azole antifungal agents. Objective: The study aimed to determine the effect of mouth rinses containing chlorhexidine digluconate (CHX), cetylpyridinium chloride (CPC) and their combination (CHX-CPC) on the growth of these strains. Methods: The minimal inhibition concentrations (MIC) of the mouth rinses were determined. The growth curves of the strains produced under the mouth rinse-treated and untreated conditions, as well as alterations to the morphology of the growth colonies and cells following the treatments were compared and analysed. Results: The MICs of CPC compared to CHX mouth rinses were found to be lower for both *Candida* sp. In the mixed formulation, CPC doubled the inhibitory effect of CHX towards both *Candida* sp., while CHX quadrupled the activity of CPC towards *C. tropicalis*. The growth colonies also appeared coarse, wrinkled and dried. Conclusion: The profound effects shown may suggest the fungicidal activities of the mouth rinses incorporated with CHX, CPC or their combination on both *C. tropicalis* and *C. krusei*. Gargling using mouth rinses with such fungicidal activity would enhance a rapid reduction in the candidal population of patients with fungal infection.

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Source	Journal of Dentistry
ISSN	0300-5712
DOI	10.1016/j.jdent.2012.04.003
Volume (Issue)	40(7)
Page	609-615
Year	July 2012

Keyword:

*C. tropicalis*, *C. krusei*, Growth curves, Oral mucositis, Fungicidal, Activity, in-vitro, albicans, formulations, mouthrinse, resistance, dentin, agents

Please Cite As:

FATHILAH, A. R., HIMRATUL-AZNITA, W. H., FATHEEN, A. R. N. & SURIANI, K. R. 2012. **The antifungal properties of chlorhexidine digluconate and cetylpyrinidinium chloride on oral Candida.** *Journal of Dentistry*, 40, 609-615.

URL:

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