

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.

Author	<ul style="list-style-type: none">• Fathilah, A. R.• Himratul-Aznita, W. H.• Fatheen, A. R. N.• Suriani, K. R.
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