Inhibition of candida adhesion to denture acrylic by *Boesenbergia pandurata*

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**ABSTRACT**

Objective: To investigate effect of *Boesenbergia pandurata* (*B. pandurata*) rhizome extract on adhesion of *Candida albicans* (*C. albicans*) to acrylic surface. Methods: Transparent acrylic strips were prepared and divided into three groups with pretreatment by extract solution of *B. pandurata* rhizome at concentration of 25, 50 and 100 mg/mL, respectively. After washing, the strips were then inoculated with two strains of *C. albicans* (ATCC13803 and the clinical isolate) (10⁷ cells/mL). Normal saline solution and 0.2% chlorhexidine gluconate were used as negative and positive controls, respectively. Stained the strips with modified Gram stain without counterstain. Adherent yeast cells were direct counted under microscope (Olympus–CX31, Japan) in 20 randomly selected fields on each strip. The statistical significance was calculated by Kruskal–Wallis and Mann–Whitney non–parametric tests at a significance level of *P* < 0.05. Results: Pretreatment with *B. pandurata* extract significantly reduced the adhesion of both strains of *C. albicans* to acrylic surfaces in a dose dependent manner. Conclusions: This observation indicates that *B. pandurata* extract has an inhibitory effect on the ability of *C. albicans* to adhere to denture acrylic and could be employed as an antifungal agent for preventing denture stomatitis.

**Keywords**: Candida; Adhesion; Denture; *Boesenbergia pandurata*

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