

ONLINE ISSN : 1881-1361

PRINT ISSN: 0287-4547

Dental Materials Journal Vol. 28 (2009), No. 3 p.307-314

[PDF (1054K)] [References]

## Bactericidal efficacy of glycine-type amphoteric surfactant as a denture cleaner and its influence on properties of denture base resins

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(Received November 21, 2008) (Accepted December 18, 2008)

## Abstract:

The bactericidal efficacy of 1.00–4.50% glycine-type amphoteric surfactant (Gly) was evaluated by measuring its microorganism removal rate in denture plaque. Physical and mechanical properties such as surface roughness, color difference, and bending strength of two different denture base resins were determined before and after cleaning in Gly solutions, a commercial denture cleaner, and tap water. The microorganism removal rates of all the Gly solutions were higher than those of a commercial enzymatic denture cleaner (Polident) (p<0.05). The removal rate of *Candida spp*. by Polident was not significantly different from the removal rate using water. Changes in the surface roughness and color difference among the specimens were slight. There were no significant differences in the bending strengths of the two resins for all concentrations of Gly solution (p<0.05). These results suggested that glycine-type amphoteric surfactant solution may be effective as a denture cleaner in conjunction with an ultrasonic cleaning device.

## Key words:

Resin, Surfactant, Microorganism

To cite this article:

Makiko HASHIGUCHI, Yasuhiro NISHI, Takahito KANIE, Seiji BAN and Eiichi NAGAOKA. Bactericidal efficacy of glycine-type amphoteric surfactant as a denture cleaner and its influence on properties of denture base resins . Dent. Mater. J. 2009; 28: 307-314 .

doi:10.4012/dmj.28.307 JOI JST.JSTAGE/dmj/28.307

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