



758 INCORPORATION OF FUNGAL MICs ON ROUGHNESS OF DENTURE LINERS

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Objectives: The aim of this study was to evaluate the effect of incorporation of minimum inhibitory concentrations (MICs) of antimicrobial agents for *Candida albicans* biofilm (SC5314) on the roughness of temporary denture relines. **Methods:** Test groups (n= 8) were formed by rectangular specimens (36 mm x 7 mm x 6 mm) of the resilient materials (Trusoft-T and Softone-S) without (control) or with incorporation of the MICs of five drugs (nystatin- 0.032g/mL; miconazole- 0.256g/mL; itraconazole- 0.256g/mL; chlorhexidine diacetate- 0.064g/mL; ketoconazole- 0.128g/mL). After storage of specimens in distilled water at 37°C for 24h, 7 and 14 days, the roughness assay was conducted in a surface roughness tester (Surfetest SJ-301). Data were statistically analyzed by 3-way ANOVA followed by Tukey's test ($\alpha=.05$). **Result:** After 14 days, the addition of nystatin into the two materials (T=3.20±0.35 μm ; S=3.84±0.66 μm), chlorhexidine into Trusoft (4.03±0.76 μm) and ketoconazole into Softone (3.61±0.45 μm) resulted in no significant ($P>.05$) changes of roughness values compared to the control (T=3.61±0.94; S=3.26±0.39). Itraconazole promoted significant ($P<.0001$) increase of the roughness for both materials after 7 days (T=6.34±1.3 μm ; S=6.89±0.77 μm) and 14 days (T=5.74±0.61 μm ; S=6.25±0.72 μm). Compare to the 24- h period, the roughness at 14- day time with the addition of nystatin, miconazole and ketoconazole was significantly reduced for Trusoft ($P<.05$) and remained unaffected for Softone ($P>.05$). **Conclusion:** Within the limitations of this in vitro study, it can be concluded that at 14 days of water storage, the incorporation of nystatin, miconazole and ketoconazole into both temporary denture relines and chlorhexidine into Trusoft resulted in no detrimental changes on the roughness.

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