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750 HARDNESS OF TEMPORARY LINERS MODIFIED BY ANTIMICROBIAL MICS FOR *C.ALBICANS*

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Location: Poster Hall (Convention Center)

Presentation Type: Poster Session

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Objectives: The purpose of this study was to evaluate the Shore A hardness of temporary denture relines modified by minimum inhibitory concentrations (MICs) of antimicrobial agents for *Candida albicans* (SC5314) biofilm. **Methods:** Test groups (n= 8) were consisted of rectangular specimens (36 mm x 7 mm x 6 mm) of the resilient materials (Trusoft and Softone) 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 in distilled water at 37°C for 24h, 7 and 14 days, the specimens were submitted to hardness tests performed using a Shore A hardness tester (Woltest, GSD-709A). Data were statistically analyzed by 3-way ANOVA followed by Tukey's test ($\alpha=.05$). **Results:** The addition of the tested antimicrobial agents in both materials demonstrated no evident hardness change or resulted in its decrease compared to the control, except for miconazole incorporation into Softone (16.1±2.2 Shore A), which significantly ($P =.0035$) increased the hardness values after 14 days (23.1±3.6 Shore A). In all conditions, the hardness mean values of Softone (15.8±2.1 Shore A) were lower than those of Trusoft (19.3±2.2 Shore A). **Conclusion:** Under the tested in vitro conditions, it was concluded that the addition of all tested antimicrobials in its MICs, except for the miconazole into Softone, resulted in no deleterious effects on hardness of the resilient materials over the evaluation time.

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Keywords: Antimicrobial agents/inhibitors, Denture liners, Hardness, Polymers and Prostheses