

In vitro adhesion of oral Candida species to denture materials

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Objectives: Adhesion of *Candida* species to prosthetic acrylic resins is an essential first step in the pathogenesis of denture stomatitis. Data on the relative adhesion of pathogenic non-albicans *Candida* species to different denture base materials are sparse. The purpose of the present study was to investigate in vitro the adhesion of *C. albicans*, *C. glabrata*, *C. krusei*, and *C. dubliniensis* to four different denture base materials. Methods: Specimens of both heat cured resins (VertexTM Rapid Simplified & ProBaseTM Hot) and cold cured resins (Paladur[®] A & Paladur[®] B) were prepared using a novel method and the adhesion of four strains each of the foregoing *Candida* species evaluated microscopically using a Soft Imaging System. Results: There was a significant difference in yeast adherence between Vertex and the other resins. Only *Candida glabrata* attached to Vertex, while all the remainder of the tested species adhered to all other resins tested except ProBase, which resisted *C. krusei* adhesion. There was a significant difference in candidal adhesion between cold-cured and heat-cured resins for three *Candida* species (*C. albicans*, $P=0.039$; *C. glabrata*, $P=0.002$; and *C. krusei*, $P=0.000$). Conclusions: The type of denture base material and whether they are heat-cured or cold-cured play an important role in modifying candidal adhesion.

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