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The influence of subinhibitory concentrations of fluconazol and amphotericin B in the adhesion of different Candida species to acrylic

Mariana Henriques, Joana Azeredo, Rosário Oliveira*

University of Minho - Portugal
*roliveira@deb.uminho.pt

The most common antifungal agents used to treat candidiasis are fluconazol and amphotericinB. Candidal species adhesion is the first step in oral pathogenesis, therefore it is very important to study the behaviour of the adhesion of yeasts submitted to subinhibitory concentrations of antifungal agents. In this study the adhesion was done with Candida albicans and Candida dubliniensis. In order to mimetize real conditions the adhesion assays were performed using a medium with artificial saliva and acrylic as substratum, which is the material used to produce prosthetic devices. The results showed that in the case of Candida albicans the adherence decreased in the presence of fluconazol (1/4MIC=0.25µg/ml). Considering Candida dubliniensis there were no significative differences in the number of adhered cells to acrylic either in the presence of fluconazol or amphotericinB (1/4MIC=0.01µg/ml). Observing cell morphology after adhesion, by SEM, it was possible to notice that cells incubated with subMIC fluconazol formed less hifas than those grown in the presence of subMIC amphotericinB, which can explain the differences in adhesion.