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BIOFILM FORMATION AND ANTIFUNGAL SUSCEPTIBILITY OF CANDIDA TROPICALIS AND CANDIDA GLABRATA CLINICAL ISOLATES

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The emergence of the Non-*Candida albicans Candida* (NCAC) species, as fungal pathogens, has becoming more notorious nowadays. Among the several NCAC species, are *Candida tropicalis* and *Candida glabrata*. *Candida tropicalis* is considered the second most virulent *Candida* species, after *Candida albicans*, and *Candida glabrata* is considered less virulent but is more resistant to azole agents. In order to proliferate and infect *Candida* species need to adhere and form biofilms. Biofilms are complex structures of cells embedded in exopolymeric substances that confer to *Candida* cells increased resistance to antifungal agents. So, the main aim of this work was the study of biofilm formation and antifungal susceptibility of oral clinical isolates of *Candida tropicalis* and *Candida glabrata*. Samples were collected from the oral cavity of patients from a periodontology clinic and isolated in CHROMagar™ *Candida*. After isolation samples were identified by PCR using primers of the topoisomerase II gene. Biofilms were formed on 96 well plates and analysed after 48h by crystal violet staining and by formazan salts formation by XTT. Antifungal susceptibility to fluconazole was determined according to the NCCLS M27A standard and also using the XTT method. The PCR results confirmed the presumptive identification of both species in CHROMagar™ *Candida*. From the analysis of biofilms formed by both species it was possible to observe that there are differences in both to-

tal biomass (quantified by crystal violet) and activity (quantified by XTT) either between the species and the isolates. It is also interesting to highlight that there was no correlation between the amount of total biomass and the biofilm activity. From the results of the antifungal susceptibilities it could be noticed that one of *Candida glabrata* isolates was resistant to fluconazole. As in biofilm formation analysis, the different isolates of the same species present different behaviours in terms of resistance to the antifungal agent.