

Título: ADHESION ABILITY AND ENZIMATIC PRODUCTION OF *Candida parapsilosis* OBTAINED FROM HIV/AIDS PATIENTS ONICOMICOSIS

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Resumo:

Superficial or systemic infections caused by *Candida* are more likely to develop in severe illness or immunocompromised patients. Among these infections we can emphasize nail infections that can affect both immunocompetent and immunocompromised patients, however in the last ones it can be more intense and can cause systemic and fatal disease. The species *Candida parapsilosis* has been identified as the main infectious agent in various studies conducted with patients with onychomycosis. This study aimed to evaluate two virulence factors of *Candida*: secretion of enzymes and adhesion ability. Samples of fungi were obtained from skin lesions of 49 patients with HIV or AIDS in São Luís city, Maranhão. The identification was carried out by CHROMagar *Candida*® (BioMerieux, France) and later by the VITEK YBC (BioMerieux, France) method. Enzyme tests were performed to evaluate the production of hemolysin, proteinase, phospholipase and catalase. Adherence test was made with the inoculum in contact with silicone or stainless steel material for 3 hours and then CFUs were counted. Seven strains of *C. parapsilosis* were used. The results of enzymatic production showed that 100% of the samples were not producing phospholipase. In contrast, all isolates were capable of producing catalase. Half of the samples were proteinase producers, two classified as strong and one as weak producer. Regarding the production of hemolysin, all samples were strongly positive with hemolytic ratios ranging from 2.07 to 3. The adhesion test to silicone latex revealed that *C. parapsilosis* showed great performance for this property with positivity of 100%, with 66.67% being classified as weak adherent and 33.33% as moderately adherent. By analyzing the strength of adhesion to stainless, 50% of the strains of *C. parapsilosis* presented as weakly adherent, 33.33% as strongly adherent and 16.67% had a very strong adherence pattern. Taking all these results together one verified that *C. parapsilosis* isolates have showed some important virulence properties and factors and, therefore, they might be able to cause infections mainly in immunocompromised patients.

Palavras-chaves: *Candida parapsilosis*, adherence, enzymatic production

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