

Molecular profile of *Candida parapsilosis* isolated from the health professionals's hands from a neonatal unit in a university hospital

BESSA, M. A. S.; ALVES, P. G. V.; SILVA, F. F.; MELO, S. G. O. ; SANTOS, G. P. R.; SILVA, N. B. S.; MARQUES, L. A., PENATTI, M. P. A ; RÖDER, D. V. D. B; MENEZES, R. P .

Institution:

Federal University of Uberlândia, Uberlândia, Minas Gerais (Technical Course in Clinical Analysis ESTES-UFU, Av. Amazonas s/nº - Bloco 4K – Sala 111-Umuarama Campus, Uberlândia - MG - CEP 38400-902)

Critical neonates constitute a risk group for the development of fungal infections due to increased susceptibility and immature immune system. Candidiasis caused by *Candida parapsilosis* is severe and generally less susceptible to the action of some classes of antifungal. Worldwide studies have shown the association of infections acquired in the hospital environment with inadequate hand hygiene practice. Consequently it results in the environmental dissemination of virulent micro-organisms and the concern for the safety of newborns becomes even greater. The incorporation of molecular methods for the typing of these nosocomial microorganisms has helped to obtain a more assertive evaluation and propose actions to eliminate reservoirs, in order to reduce the occurrence of invasive infections. The study aims to analyze the molecular profile of *C. parapsilosis* complex isolates from the health professionals's hands of a neonatal unit. Twenty-seven *C. parapsilosis* complex isolates from the health professionals's hands were evaluated. The technique used was Random Amplification of Polymorphic DNA, using two primers OPB11 and OPA09, in order to establish the genetic relationship between the isolates. The amplification products were submitted to agarose gel electrophoresis. The data were analyzed from the statistical program Multi-Variate Statistical Package version 3.22. Genetic relationships were calculated using the Jaccard coefficient (S_j , coefficient of similarity), which values of S_j of 1.00 and 0.99 indicate that the isolates have the same genotype, values between 0.80 and 0.99 indicate clonally related samples (high similarity, but not identical) and S_j values below 0.80 indicate different isolates. Nine isolates (33.3%) had high similarity, and two (22.2%) had the same genotype ($S_j = 1.00$), the remaining 18 isolates were considered distinct. In conclusion, the isolates had high genetic similarity may have been acquired in the hospital environment and disseminated to other sites. The transmission of an exogenous source is facilitated by the health professionals's hands during the installation of invasive devices, raising the possibility of horizontal transmission, consequently, the development of nosocomial infections.

Key words: *C. parapsilosis*, RAPD-PCR, hands.

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