

Title: GENETIC DIVERSITY OF *Malassezia pachydermatis* BY PCR-RAPD FROM DOMESTIC AND WILD ANIMALS

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Abstract:

The yeast fungus *Malassezia pachydermatis* (*M. pachydermatis*) is associated to human and animal diseases. In veterinary medicine, *M. pachydermatis* can cause otitis and dermatitis. In humans it may affect mainly immunocompromised patients and newborns, resulting from simple pustulosis, seborrheic dermatitis, tinea versicolor and fungemia. The aim of this study was to analysis genetic diversity of *M. pachydermatis* isolates from animals at Cuiaba- MT, Brazil. One hundred and sixty-nine samples from clinical cases (skin lesion or otitis) or healthy animals were collected at Veterinary Hospital (Federal University of Mato Grosso) from February 2008 to November 2010. The samples were cultured in Sabouraud agar with chloramphenicol and incubated at 37 ° C, for a period of seven to ten days. The morphologically compatible isolates were processed for DNA extraction and the PCR specific primers to *M. pachydermatis* (M.pa-F and 5.8SR). Animal samples were distributed in 163 dogs (*Canis lupus familiaris*) three cats (*Felis catus*) and three giant anteater (*Myrmecophaga tridactyla*). Genetic diversity was assessed with RAPD-PCR primer OPT-20 and analyzed at agarose gel electrophoresis. One hundred forty-seven samples were positive (87%) and twenty-two (13%) negative to *M. pachdermatys* isolation. Of the 147 positive samples, 93 (63.26%) were from animals with clinical signs. Of these 57 isolates confirmed by PCR were subjected to RAPD-PCR technique where they were distributed in 4 groups genetic types I (64.9%) and II (8.77%) were more frequent in patients animals, the type III (22.8%) had higher occurrence in healthy animals, and was of type IV (3.5%) equivalently in samples with clinical signs and no clinical signs. Based on this data, genotype I was more frequent in animals with clinical signs and genotype III in healthy animals

Keywords: *Malassezia pachydermatis*, PCR, RAPD.

Development agency: