TITLE: ANTIFUNGAL ACTION IN VITRO OF MORTODICA CHARANTIA VEGETAL EXTRACT FRONT A *Microsporum gypseum* DPUA 1812

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ABSTRACT:
Dermatophytosis is a frequent mycosis in the small animal clinic, caused mainly by the species *Microsporum canis*, *Microsporum gypseum* and *Trichophyton mentagrophytes*. Phytotherapy stands out as an alternative treatment due to the reduction of the impacts caused to the environment, animals and men. Therefore, the objective of this study was to evaluate the antifungal activity *in vitro* of the plant extract of *Mormodica charantia* against *Microsporum gypseum* associated with skin diseases of domestic animals. The botanical material of *M. charantia* was collected at the IFAM Campus Manaus Zona Leste and deposited at the Herbarium EAFM. The extraction of the vegetal extract was carried out in the Laboratory of Analytical Chemistry of the IFAM Campus Manaus Centro through extraction with organic solvents (Hexane, Ethyl Acetate and Methanol). Three concentrations of the extracts were used in this study (25%, 50% and 100%), using Tween 80 and DMSO, positive control with Itraconazole 16 mg/mL and negative control with Tween 80 and DMSO. The fungus *M. gypseum* was obtained from the DPUA Collection of UFAM. The determination of the antifungal activity was done by the agar diffusion method. The yields of *M. charantia* extracts extracted with hexane, ethyl acetate and methanol were 3.98%, 4.34% and 7.32%, respectively. The extraction with methanol presented higher yield. Only the ethyl acetate extract inhibited the growth of the fungus *M. gypseum*, with formation of inhibition halos larger than 10 mm. There was no antifungal activity at 25% concentration, inhibition halos were observed at concentrations of 50% and 100% (63±5.7 mm and 43±5.7, respectively). The concentration of 50% presented greater antifungal potential. In the negative control, no inhibition halos were observed, suggesting that the diluents used did not present antifungal activity against dermatophyte fungus *M. gypseum*. According to the results obtained in this study, the extract of ethyl acetate of *M. charantia* showed antifungal activity against *M. gypseum*, opening the perspective of studies to characterize its bioactive components, as well as the research to obtain the extract with other solvents.

Keywords: dermatophytes fungus, phytotherapic, melon-of-São-Caetano.

Development Agency: Instituto Federal de Educação, Ciência e Tecnologia do Amazonas (IFAM).