

TITLE: RESISTANCE PROFILE OF *Trichophyton rubrum* STRAINS

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Dermatophytes can be classified as anthropophilic, zoophilic and geophilic fungi. *Trichophyton rubrum* is considered anthropophilic, since the contamination occurs between humans. The infections are called tinea, and affect keratinized tissues due to the preference of this fungus by keratin present in several tissues as in hair, skin, nails and beard. The objective of this work was to determine the minimum inhibitory concentrations (MIC), minimum fungicidal concentration (CFM), evaluating the resistance profile of two strains of *T. rubrum* against amphotericin B, fluconazole, itraconazole, thymol, miconazole and cyclopirox. The 96-well microplate microdilution technique containing RPMI was used, and the concentrations ranged from 0.25 to 128 µg / mL for fluconazole and 0.03-16 µg / mL for the other drugs. The strains used were *T. rubrum* ATCC 28189 and a *T. rubrum* (Tr1) clinical isolate. The strains were maintained in PDA agar (Potato Dextrose Agar) and seven days after the cultivation, the fungi were inoculated in the microplate at the concentration of 5.0×10^4 CFU / mL in saline. The microplates were incubated at 28 °C under agitation for seven days and the development was using resazurin (0.01%) as developer. The determination of the minimum fungicidal concentration (CFM) was performed on PDA agar plates. The results obtained show that the ATCC strain showed higher sensitivity to the evaluated drugs, except for fluconazole and thymol, which presented high resistance. Amphotericin B showed the same results to the two strains. Thymol was the drug that the strains presented higher resistance. In conclusion the clinical isolated strain already presents a resistance to 4 drugs of the 6 evaluated in this study in comparison with the ATCC strain. Thymol was not a drug indicated for therapy to this type of infection, since the strains presented growth in the highest concentration evaluated.

Key words: Dermatophytes, *Trichophyton rubrum*, antifungal agents.

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