SUSCEPTIBILITY OF YEASTS ISOLATED FROM *Atta sexdens rubropilosa* TO ANTIFUNGAL DRUGS.

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Resumo:

Some yeasts can cause diseases, especially those belonging to the genera *Candida*, *Cryptococcus* and *Trichosporon*. Information about the susceptibility or natural resistance to the existing antifungal drugs is still limited, mainly for species isolated from the environment. This study aimed to determine the susceptibility of yeasts isolated from alates (males = bitus) of ant *Atta sexdens rubropilosa* collected in Rio Claro municipality (SP), to different antifungal drugs. The minimum inhibitory concentration (MIC) was determined by broth microdilution according to the M27-A2 document and spectrophotometric readings. The antifungal drugs amphotericin B, itraconazole, voriconazole, posaconazole, fluconazole and caspofungin were used in the assays. *Candida krusei* (ATCC6258) and *C. parapsilosis* (ATCC22019) were used as a control. The yeasts were identified using phenotypic methods coupled with sequencing of specific regions of the rDNA. Eight strains of *Cryptococcus haglerorum* and four strains of *Trichosporon chiarellii*, two yeast species isolated only in association with attine ants so far were used for the assays.

All of the isolates were resistant to more than one antifungal. Two strains of *C. haglerorum* were resistant to itraconazole (MIC ≥ 1µg/ml), and the remaining six showed dose-dependent susceptibility for this antifungal (0,25-0,5µg/ml). Additionally, all except one strain were also resistant to anphotericin B (MIC ≥ 2µg/ml) and five were not susceptible to caspofungin (MIC > 2 mg/ml).

In respect to the four isolates of *T. chiarelli,* two were dose-dependent to itraconazole, three were not susceptible to caspofungin and all of them were resistant to anphotericin B. Interestingly, even being isolated from natural environment and without any previous contact with human being, some of the isolates were resistant or dose-dependent to more than one drug indicating that this resistance is natural and not acquired. Considering that attine ants may survive in urban areas the implication of these findings still need to be better evaluated

Keywords: Antifungal drugs, leaf-cutter ant, yeasts.

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