



***Rhodotorula sp.* ANALYSIS OF THE ANTIFUNGAL ACTIVITY OF ESSENTIAL OILS**

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INTRODUCTION

The *Rhodotorula sp.* genus was described by F.C. Harrison in 1927. *Rhodotorula sp.* are pink yeasts¹, which belong to the Fungi kingdom, *Basidiomycota* filo, *Urediniomycetes* class, *Sporidiales* order, *Cryptococcaceae* family and *Rhodotorulalodeae* subfamily. Until recent past, *Rhodotorula sp.* was considered non-virulent saprophyte as well as a frequent contaminant. However, members of the *Rhodotorula sp* genus emerged as pathogens in humans due to immunosuppression and the technology of implantation of foreign bodies in the human organism. It is composed of yeast species, which can be isolated from soil samples, feces, food and air. Considered as non-pathogenic until the last two decades, it has become an emerging agent causing infections in immunosuppressed humans. Amphotericin B and fluconazole are the drugs of choice used in the treatment of *Rhodotorula sp* infections, but some strains of this yeast already show degrees of resistance to fluconazole².

MATERIAL AND METHODS

Antifungal sensitivity tests were done by the broth microdilution assay according to the methodology recommended by the National Committee of Clinical Laboratory Standards, documented in M-27 A2. The following antifungal agents were tested: *fluconazole*, *itraconazole*, *ketoconazole*, *nystatin* and essential oils of *Cinnamomum cassia* L. (*Lauraceae*) and *Syzygium aromaticum*³ L. Merr. E L. M. Perry (*Myrtaceae*) and *Myristica fragrans* Houtt (*Myristicaceae*)⁴. Ethical approval

RESULTS

2,236,863. CEP-UFRGS. All the evaluated essential oils presented positive effects against the *Rhodotorula sp* species evaluated. In general, this study showed inhibition activity for all essential oils evaluated, with the best results obtained with essential oil of cinnamon, followed by clove oils and both geraniums.

CONCLUSIONS

All evaluated oils presented promising potential in antifungal activity. Further studies are in progress, such as the analysis of the chemical composition of the essential oils by GC/MS.

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