

TITLE: ANTIBACTERIAL ACTIVITY OF THE EXTRACT OF *Cymbopogon citratus*, FRONT OF THE BACTERIA OF CLINICAL ORIGIN *Staphylococcus aureus*.

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ABSTRACT

The species *Cymbopogon citratus*, belonging to the family Poaceae, originates in India and is widely distributed in several tropical countries, including Brazil, where it assumes different synonyms such as lemon grass, holy grass, lemon balm, among others. It is found throughout the Brazilian territory and commonly cited in surveys of medicinal plants and ethnobotanical studies. Its leaves are rich in citral. The leaves were collected, the whole process of preparing the extract was carried out in the laboratory, washed in running water, dried and prepared to go to the oven (40 ° C for 24 hours). Then the preproduction of the extract of *Cymbopogon citratus*, where the sample was crushed and numbed in 70% alcohol, was carried out for 10 days and subsequently passed through percolation. Afterwards, in the microbiology laboratory, the plates were prepared with the Mueller-Hinton culture medium for the disc diffusion test with strains of *Staphylococcus aureus*. Where they were tested with the antibiotics: Vancomycin, Ampicillin, Azithromycin, in addition to using an alcohol disc as a control and a disc with the extract of *Cymbopogon citratus*. Among the antibiotics in analysis, the ones with inhibition halo were Vancomycin and Azithromycin, with a halo of 23 mm and 20 mm respectively. *Cymbopogon citratus* extract did not promote inhibition halo formation compared to antibiotics, it was ineffective on *Staphylococcus aureus* bacteria without antibacterial activity, thus demonstrating a resistance of the strains under test or an insensitivity to the extract as already described by Alvarenga et al. al (2007), where the strains of *Staphylococcus aureus* tested associated with the hydroalcoholic extract of *Cymbopogon citratus* showed no significant inhibition.

Keywords: Antibiotics; *Cymbopogon citratus*; *Staphylococcus aureus*.

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