

ANTIMICROBIAL ACTIVITY OF *Aristida pallens* IN BACTERIA AND YEAST OF CLINICAL INTEREST

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Medicinal plants are widely used as natural medicines in various forms such as: teas applications, extracts and may be further source of bioactive principles for the synthesis of drugs. The *Aristida* genus has about 670 species, and the *Aristida pallens* are popularly known as capim barba-de-bode and it is found in low fertility soils of the Brazilian cerrado. The increased use of herbal medicines occurs for several reasons, among these, the development of resistant microorganisms to synthetic antimicrobials since then in use, has great importance. The objective of the study was to determine the Minimum Inhibitory Concentration (MIC) against microorganisms of clinical interest. From the *American Type Culture Collection* (ATCC, Rockville, MD, USA), were they: bacteria *Bacillus cereus* ATCC 11778, *Enterobacter aerogenes* ATCC 13048, *Enterococcus faecalis* ATCC 29212, *Escherichia coli* ATCC 25922, *Klebsiella pneumoniae* ATCC 13883, *Listeria monocytogenes* ATCC 7644, *Pseudomonas aeruginosa* ATCC 27853, *Proteus mirabilis* ATCC 35659, *Staphylococcus aureus* ATCC 25923, *Staphylococcus epidermidis* ATCC 12228, *Salmonella* Enteritidis ATCC 13076, *Salmonella* Typhimurium ATCC 14028 and yeast *Candida albicans* ATCC 90028, *Candida glabrata* ATCC 2001, *Candida tropicalis* ATCC 750, *Candida krusei* ATCC 6558. The dried and powdered plant material was mixed in 1000 mL of absolute ethyl alcohol 95% and left at 25° C for 48h, with occasional agitation. After being filtered, the plant extract was completely evaporated at 35° C and subsequently lyophilized. The MIC susceptibility assays were performed using the broth microdilution assay in sterile 96 well microplates in accordance with the guidelines of the *Clinical and Laboratory Standards Institute* (CLSI, 2008; CLSI, 2014). It was used RPMI-1640 medium for yeast and Muller-Hinton medium for bacteria. The ethanol extract *A. pallens* showed antimicrobial activity against *Salmonella* Enteritidis (MIC = 1000 mg / mL) and *Candida tropicalis* (MIC = 250 mg / mL). *C. tropicalis* species are often isolated in hospitals and can cause serious infections in hospitalized patients. The bacteria of the species *S. Enteritidis* are commonly found in foods such as poultry and eggs and can cause food poisoning. The results show that *A. pallens* may be a possible alternative to combat infections microorganism of clinical interest and that further research should be encouraged to evaluate the antimicrobial potential of plants available in the Brazilian cerrado.

Keywords: medicinal plants, antimicrobial potential, *Aristida pallens*.

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