

Title: THE ANTIMICROBIAL ACTIVITY OF ETHANOL EXTRACT OF *Smilax campestris Grisebach* LEAVES.

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Abstract:

Medicinal plants represent an economical alternative, accessible and applicable to several diseases, especially in developing countries. Among them, the *Smilax campestris Grisebach* is commonly used by people to treat flu, fevers, colds and diseases caused by microorganism. Given the growing importance of search for new antimicrobial agents is intense due to the increased resistance of pathogenic microorganisms front of the intensive use of synthetic products, this study aimed to analyze the antimicrobial activity of ethanol extract of *Smilax campestris Grisebach* leaves. The Minimum Inhibitory Concentration (MIC) was determined for 16 microorganisms of clinical interest through the broth microdilution technique. The evaluated microorganisms were: *Candida albicans* ATCC 90028, *Candida tropicalis* ATCC 750, *Candida glabrata* ATCC 2001, *Candida krusei* ATCC 6558, *Klebsiella pneumoniae* ATCC 13883, *Salmonella* Typhimurium ATCC 14028, *Proteus mirabilis* ATCC 35659, *Enterobacter aerogenes* ATCC 13048, *Salmonella* Enteritidis ATCC 13076, *Enterococcus faecalis* ATCC 29212, *Escherichia coli* ATCC 25922, *Listeria monocytogenes* ATCC 7644, *Bacillus cereus* ATCC 11778, *Staphylococcus epidermidis* ATCC 12228, *Staphylococcus aureus* ATCC 25923, *Pseudomonas aeruginosa* ATCC 27853. The ethanol extract of the *Smilax campestris Grisebach* leaves showed activity for *Candida tropicalis* (MIC = 500ug/ml) and *Staphylococcus epidermidis* (MIC = 1000ug/ml), for other microorganisms the extract showed no activity. The yeast *Candida tropicalis* is one of the most common species isolated in hospital infections and a frequent agent in cases of candidemia. *Staphylococcus epidermidis* is the most frequent specie found in hospital epidemic, cause severe infections in neonates, immunocompromised individuals and hospitalized for long periods. The results showed that the use of ethanol extract of *S. campestris* leaves may be a promising alternative for the control of these pathogens.

Key words: medicinal plants, japecanga, antimicrobial.

Financial Support: Fundect, UFGD.