

TITLE: EVALUATION OF THE ANTIMICROBIAL ACTIVITY OF ETHANOLIC EXTRACTS OF PLANTAGO MAJOR L. (TANCHAGEM) AND MYRACRODRUON URUNDEUVA (AROEIRA)

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ABSTRACT:

The beginning of the use of vegetal extracts refers to human antiquity aiming either at healing or relief symptoms from the most varied causes. Furthermore, studies and research with plants, as well as the search for alternative treatments and the cure of infectious diseases are being resumed, due to individual or synergic action of secondary metabolism of natural products. In addition to the microorganisms acquired resistance and health emergencies, the goal is to learn more about the antimicrobial potential from the extracts of *Plantago major* L. e *Myracrodruon urundeuva*. Thus, were used standards samples of *Staphylococcus aureus* (ATCC 25923), *Bacillus subtilis* (ATCC 19659), *Escherichia coli* (ATCC 25922), *Pseudomonas aeruginosa* (ATCC 27853), *Salmonella* sp (ATCC 19196), and the yeast *Candida albicans* (ATCC10231). After dried and stabilized, the plant samples were submitted to maceration. The extracts were prepared in the proportion of 1:10 with ethanol, generating a final concentration of 1mg / mL. Following the use of the extracts prepared, triplicate tests were performed on the evaluation of the antimicrobial activity by the agar diffusion method, using 10% (C +) chlorhexidine as control. The results showed that the extracts from the aerial parts of *Plantago major* L. (E3), bark (E2) and leaves (E1) of *Myracrodruon urundeuva* do not present antimicrobial activity for the strains used in the research. However, when combined, at a concentration of 1mg / mL, they presented a synergistic effect. The highest inhibition halos for *S.aureus*, *B. subtilis*, *E. coli*, *P. aeruginosa*, *Salmonella* sp and *Candida albicans* were found, respectively, for the E1 + C + combinations; E1 + C +, E1 + E3 + C + and E1 + E5 + C +; E3 + C +; E3 + C + and E1 + E3 + E5 + C +; E1 + C + and E5 + C +; E3 + C + and E3 + E5 + C +, which demonstrates the inherent particularity of the combinations and their action on the growth of these microorganisms. Nonetheless, further studies using different concentration, solvent, temperature, time and extraction method are necessary to verify if there was loss of compounds sensible to these variations.