



AVALIAÇÃO DO POTENCIAL ANTIMICROBIANO DE *Cnidoscolus quercifolius* Pohl (Faveleira)

Leidjane Alves de Souza (G)¹, Ana Beatriz Cardoso Medeiros Lins (G)¹, Mikssael Gomes Ferreira (G)¹, Yáskara Veruska Ribeiro Barros (Prof)¹, Raimundo Gonçalves de Oliveira Junior (Prof)², Juliane Cabral Silva (Prof)³

leidjane.souza@academico.uncisal.edu.br

¹Universidade Estadual de Ciências da Saúde de Alagoas; ² Université Paris Cité; ³ Programa de Pós-Graduação em Saúde da Família (PPGSF/RENASF);- nucleadora Universidade Estadual de Ciências da Saúde de Alagoas

Keywords: faveleira, antimicrobial potential, phytotherapy

ABSTRACT

BACKGROUND: *Cnidoscolus quercifolius*, or “faveleira,” is a plant native to Brazil's Caatinga biome, traditionally used for energy, food, environmental restoration, and medicinal purposes. Known for its antitumoral, anti-inflammatory, and antiseptic properties, there is, however, limited scientific evidence supporting its antimicrobial effects. This study aims to assess the antimicrobial capabilities of *Cnidoscolus quercifolius*, specifically targeting bacterial and fungal strains known for their resistance to conventional treatments. **METHODS:** The study utilized an exploratory, quantitative, double-blind design to evaluate the antimicrobial activity of an ethanolic bark extract and its methanolic, chloroform, and ethyl acetate fractions. Antimicrobial testing was conducted via the disk diffusion method on bacterial strains such as *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Escherichia coli*, *Pseudomonas aeruginosa*, and *Acinetobacter baumannii*, as well as fungal strains *Candida albicans*, *Candida parapsilosis*, and *Candida tropicalis*. Filter paper disks impregnated with 10 μ L of each extract at a 50 μ g/mL concentration were incubated at 35°C for 24 hours. Inhibition halos were measured with calipers, and control antibiotics (Amikacin, Ciprofloxacin, Sulfazotrim, and Ketoconazole) were used for comparison. **RESULTS/DISCUSSION:** The results indicated limited antimicrobial activity, with chloroform and ethyl acetate fractions producing inhibition halos of 9 mm and 8 mm against *Staphylococcus aureus*, classifying them as inactive. None of the extracts demonstrated significant activity against gram-negative bacteria or *Candida* species, and antifungal results were markedly weaker than the positive controls. This aligns with previous studies suggesting that gram-negative bacteria generally exhibit low sensitivity to natural extracts, highlighting the limitations of *C. quercifolius* as an antimicrobial agent. **CONCLUSION:** *Cnidoscolus quercifolius* showed minimal antimicrobial efficacy against the tested microorganisms, suggesting limited potential as an antimicrobial agent under the conditions studied. Further research, including alternative extraction methods, examination of different plant parts, or combined therapeutic approaches, may reveal enhanced antimicrobial properties. Such investigations could validate its traditional medicinal use and potentially contribute to the discovery of new natural therapeutic agents.