

ANTIMICROBIAL ACTIVITY OF MEDICINAL PLANTS OF THE AMAZON: SCIENTIFIC VALIDATION OF POPULAR KNOWLEDGE

Authors: Brennda Pérola Barreto Farinha¹, Tarcisio Navegante de Queiroz Filho¹, Solange do Perpétuo Socorro Evangelista Costa¹, Rosildo Santos Paiva¹, Mara Sílvia Pinheiro Arruda¹, Wandson B. S. Pinheiro¹, Sheyla Mara de Almeida Ribeiro¹

Institution: ¹ UFPA – Federal University of Pará (Augusto Corrêa Street 01-Guamá-66017050-Belém - PA)

The popular use of medicinal plants is commonly observed in the Amazon region, both in rural and urban areas. This practice is widespread in the population not only because of the low cost but also by cultural reasons. The city of Belém, state of Pará, has great expression in this area. Many medicinal plants are sold in free town fairs, such as the Ver-o-peso market, an important commercial and tourist area where these plants are sold with indication for a large number of diseases. The objective of this study was to test the antimicrobial activity of plants sold in the ver-o-peso market and indicated for the treatment of fungal and bacterial infections, and create a booklet containing useful information to both the consumer and the merchant of medicinal plants. Four plants were selected: *Caesalpinia ferrea* (Jucá), *Scoparia dulcis* (Vassourinha), *Momordica charantia* (Melão de São Caetano) and *Centella asiatica* (Salsa de rua). The plants were extracted with water as popular indication, and organic solvents hexane, ethyl acetate and ethanol as scientific indication. The antimicrobial activity of the extracts was evaluated by disk diffusion test against strains of Gram positive, Gram negative, alcohol-acid resistant bacteria and filamentous fungi. Microbial suspensions were inoculated on Petri plates containing Mueller-Hinton agar for bacteria and Sabouraud agar for fungi. Paper disks 6 mm in diameter were impregnated with 20 µL of each plant extract at a concentration of 4mg / mL and deposited on the medium previously inoculated. The experiments were incubated at 36°C and 30°C for bacteria and fungi, respectively, and evaluated by the formation and size of the inhibition zone around the discs. The data showed that the four species of medicinal plants have antimicrobial action and that organic solvents are more efficient in active principles extraction. The results indicate the potential of these plants to control fungal and bacterial infections, scientifically confirming the popular knowledge.

Keywords: Bacteria, Fungi, Medicinal plants.

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