ОБЗОРЫ ПО КЛИНИЧЕСКОЙ ФАРМАКОЛОГИИ И ЛЕКАРСТВЕННОЙ ТЕРАПИИ

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CHEMICAL COMPOSITION, ANTIOXIDANT AND ANTIMICROBIAL ACTIVITY OF THE LEAVES OF *HANCORNIA SPECIOSA* GOMES (APOCYNACEAE)

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Hancornia speciosa Gomes is a Brazilian tree which fruit is popularly known as "mangaba". In this study we aimed (I) to characterize the chemical composition and energy content, and to evaluate the antioxidant and antimicrobial activities of the ethanol (EEHS) and methanol (EMHS) extracts from *H. speciosa* leaves.

Chemical composition of leaves followed the official proceedings of the Association of Analytical Communities and the identification of esters of acids was performed by gas chromatography. The antioxidant activity of the extracts was determined by the ferric reducing antioxidant power assay, and the antimicrobial activity was determined by minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of the strains ATTC and nosocomial infection (NI) de *Staphilococcus aureus* and *Proteus mirabilis*. The data are shown as the mean ± standard error of the mean and were submitted to one-way analyses of variance followed of Tukey's Multiple Comparison Test. The differences were considered significant when $P < 0.05$.

The leaves showed content of 14.7 ± 0.2 g of protein, 0.142 ± 0.001 g of lipidic, 82.9 ± 0.3 g of carbohydrates, 2,17 ± 0.01 g of ash and energy value of 392.0 ± 0.04 Kcal/100 g of leaves. Dominant fatty acids were C18:3n3 (34.3 %), C16:0 (22.0 %), C18:2n6c (14.5 %), C24:1 (6.9 %), C18:0 (6.4 %), and C18:1n9c+t (4.5 %). The iron-reducing activity (EC_{50}) of the EEHS, EMHS and controls ascorbic acid and butyl4--hydroxyanisole (BHA) were 18.5 ± 0.8*, 21.1 ± 0.4, 4.3 ± 0.4*** e 8.7 ± 0.3*** µg/mL, respectively. The antimicrobial activity, MIC and MBC, respectively, at mg/mL, were *S. aureus* ATCC: 0.78 and 3.12 (EEHS), 0.78 and 3.12 (EMHS); *S. aureus* NI: 3.12 and 6.25 (EEHS), 3.12 and 6.25 (EMHS); *P. mirabilis* ATCC: 3.12 and 6.25 (EEHS), 3.12 and 6.25 (EMHS); *P. mirabilis* NI: 6.25 and 12.5 (EEHS), 3.12 and 6.25 (EMHS).

Hancornia speciosa leaves show antioxidant and antimicrobial activities with potential for future application in diseases related the oxidative stress and antimicrobial activity.

QUALITY AND MICROBIOLOGICAL SAFETY AND ANTIFUNGAL ACTIVITY *HANCORNIA SPECIOSA* GOMES (*APOCYNACEAE*)

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The aim of this study was to evaluate the quality and microbiological safety and antifungal activity of the ethanolic extract of the leaves of *Hancornia speciosa* Gomes (EEHS), a Brazilian fruit tree, popularly known as "mangabeira".

Total number of mesophilic aerobic colonies, molds and yeasts were determined in dried leaves. Moreover, also were identified and quantified Enterobacterias, coliforms and *E. coli*, using the SimPlates kit, *Salmonella* by imunotest 1–2, and spores sulphite-reducing by Sulfite-polymixin-sufadiazine agar. Agar diffusion technique was used for available of filamentous fungi *Colletotrichum sp.*, *Fusarium sp.*, and *Mucor sp.* The EEHS at final concentrations of 5 and 10 mg/mL were added to the medium Potato Dextrose Agar (PDA) with tartaric acid 1% and chloramphenicol 0.1 g/L. Additionally, the chemical composition of EEHS was determined by mass spectrometry. The data are shown