



Antimicrobial Activities of Ethanol Extract and Coumestans from *Eclipta alba* (L.) Hassk (Asteraceae)

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SUMMARY. Ethanol extract and fractions from aerial parts of *Eclipta alba* (L.) Hassk (Asteraceae) were screened for the antibacterial and antifungal activities against different species of human pathogenic bacterial ATCC, antibiotic-resistant clinical isolates and strains of the dermatophyte *Trichophyton rubrum* (wild and mutant for *TruMDR2* gene) using a microdilution method. Demethylwedelolactone/wedelolactone (DWL/WL) and only wedelolactone (WL), both in a high homogeneity degree, were efficient to inhibit the ATCC strains of *Staphylococcus aureus* (Minimal Inhibitory Concentration MIC = 75 µg/mL), *Staphylococcus epidermidis* (MIC = 125 µg/mL) and *Escherichia coli* (MIC = 125 µg/mL) as well as antibiotic-resistant clinical isolates of *Enterococcus* spp (MIC = 250 µg/mL) and *S. aureus* (MIC = 125 µg/mL). Ethanol extract was more effective than the purified fractions against *Trichophyton rubrum* strains (MIC = 125 µg/mL), suggesting that anti-fungal activity is not only related to demethylwedelolactone and wedelolactone, but also to a synergistic action between these coumestans and other compounds found in that extract. Thus, this work suggests that *E. alba* possesses a significant antimicrobial activity, including that against multi-drug resistant microorganisms, which could be of relevance for the treatment of infectious diseases.

KEY WORDS: Antimicrobial activity, Demethylwedelolactone, *Eclipta alba*, Wedelolactone.

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