

Chemical composition, antibacterial and antifungal activities of essential oil from *Cordia verbenacea* DC leaves

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ABSTRACT

Background *Cordia verbenacea* is a Brazilian coastal shrub popularly known as "erva baleeira". The essential oil from fresh leaves was obtained by hydrodistillation and analyzed by CG/MS. The main components were identified as b-caryophyllene (25.4%), bicyclogermacrene (11.3%), q-cadinene (9.%) and a-pinene (9.5%). **In this study,** the antimicrobial activity of *Cordia verbenacea* was evaluated. **Materials and Methods** The minimal inhibitory concentration (MIC) of the essential oil was obtained using the broth microdilution assay (from 512 to 8 mug/ml). **Results** The results showed that the essential oil presented fungistatic activity against *Candida albicans* and *Candida krusei* and antibacterial activity against Gram-positive strains (*Staphylococcus aureus* and *Bacillus cereus*) and against multiresistant Gram-negative (*Escherichia coli* 27), in all tests the MIC was 64 mug/ml. When the essential oil was associated to aminoglycosides (subinhibitory concentrations, MIC/8), a synergic and antagonic activity was verified. The synergic effect was observed to the amikacin association (MIC reduction from 256 mlto 64 mug/ml) in all strains tested. **Conclusion** The essential oil of *Cordia verbenacea* influences the activity of antibiotics and may be used as an adjuvant in antibiotic therapy against respiratory tract bacterial pathogens.

KEYWORDS

Aminoglycosides . antimicrobial activity . *Cordia verbenacea* . essential oil

REFERENCES