Abstract

Introduction: Some species of Staphylococcus are often recognized as etiological agents of many animal and human opportunistic infections. This study is the first test of change in resistance of antibiotic activity by Croton campestris A. and Ocimum gratissimum L. against multiresistant strains of Staphylococcus aureus. Objective: In this study, the hexane and methanol extract of Croton campestris A. and Ocimum gratissimum L. was tested for antibacterial activity alone and in combination with norfloxacin against the strain SA1199B. Materials and methods: The minimum inhibitory concentration (MIC) and the modulatory effect of extracts was assayed using microtitre assay. Results: By the fact of the MIC observed was not clinically relevant (MIC= 512 to 1.024 ¿g/ml), the antibiotic activity of norfloxacin was enhanced when this antibiotic was combined with sub-inhibitory concentrations of extracts, mainly the hexane extracts. Conclusions: These results indicate that the assayed extracts present compounds that can be used as a putative efflux pump inhibitor, indicating that Croton campestris A. and Ocimum gratissimum L. can be a source of plant derived products with antibiotic modifier activity.

Keywords

Staphylococcus aureus, Croton, Ocimum, drug resistance, microbial, anti-bacterial agents, norfloxacin.