Antimicrobiol effects of chinese herbal extracts

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ABSTRACT

Since there are more infectious bacteria with resistances to clinical used antibiotics, it is necessary to search for new compounds or extracts that can inhibit or suppress growths of bacteria. We used microorganism including bacteria, fungi and pathogens, to test whether extracts from 5 Chinese herbs and plant can inhibit or suppress growths of microorganism, respectively. We first used filter diffusion assay to test if extracts can inhibit bacterial growths. We next determined the minimum inhibitory concentrations (MICs) of different anti-bacterial extracts. The results showed that the Chinese mahogany and phellodendron, Paeonia lactiflora Pall, Guava extracts of the MIC of the bacteria Staphylococcus epidermidis was 0.0200 mg/ml and > 1.9223 mg/ml, 0.0599 mg/ml, 0.0200 mg/ml ; The MIC against Bacillus cereus were 0.0892 mg/ml, 0.0918 mg/ml, 0.9736 mg/ml, 0.5111 mg/ml and 0.0595 mg/ml. Chinese mahogany and Galangin, Guava, phellodendron, Paeonia lactiflora Pall, on fungal Saccsharomyces cerevisiae the MIC was > 1.9147 mg/ml, 0.4199 mg/ml, 1.7316 mg/ml, 0.5911 mg/ml and > 1.9147 mg/ml. The MIC against Candida albicans were > 1.9184 mg/ml, 0.2728 mg/ml, > 1.9166 mg/ml, 0.6882 mg/ml and > 1.9175 mg/ml. Chinese mahogany and Galangin, Guava, phellodendron, Paeonia lactiflora Pall, on pathogenic Staphylococcus aureus subsp. Aureus the MIC was 1.5499 mg/ml, 0.5768 mg/ml, 1.0706mg/ml, > 1.9225 mg/ml and > 1.9227 mg/ml. Galangal, guava extract Bacillus subtilis subsp. spizizenii the MIC was 0.0798 mg/ml and 1.3612 mg/ml. The anti-bacterial effects of extracts of the less practical, the higher the MIC, the effectiveness of medical treatment in the future the higher.

Keywords : anti-microorganisms、anti-biotics、chinese herbal extracts、minimun inhibitory concentration.

Table of Contents

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