

Title : Antimicrobial activity of crude extracts of Asiatic Pennywort, Boesenbergia and Stink Week against some pathogenic bacteria.

Researcher

1. Miss. Janthana	Jaroenchaipong	ID 540138
2. Miss. Sirivipa	Fusabniran	ID 540332
3. Miss. Suwadee	Trakulsupachai	ID 541088

Advisor Dr. Pornthip Paungmoung

Committee

1. Asst. Prof. Watcharin Rangspanuratr
2. Dr. Somying Nyamurulert

No. of page 49 pages Date 28 August 2014

ABSTRACT

In this research, 3 types of crude extracts of herbs, Asiatic Pennywort, Boesenbergia and Stink Week were evaluated for antimicrobial activities using agar well diffusion method on 13 types of bacteria, *Staphylococcus aureus* ATCC 25923, Methicillin-resistant *Staphylococcus aureus* (MRSA), *Staphylococcus epidermidis*, *Bacillus cereus*, *Escherichia coli* ATCC 25922, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *Shigella* spp., *Salmonella enteritidis*, *Vibrio parahaemolyticus*, *Aeromonas hydrophila* and *Plesiomonas shigelloides*. The results showed that all 3 types of herbs could inhibit the growth of *Staphylococcus aureus*, Methicillin-resistant *Staphylococcus aureus* (MRSA), *Bacillus cereus*, *Vibrio parahaemolyticus*, *Aeromonas hydrophila* and *Plesiomonas shigelloides*. In addition, the results indicated that the Boesenbergia crude extract provided the highest antimicrobial activity on these bacteria, except for *Aeromonas hydrophila*. It exhibited the lowest minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) values. However, the maximum growth inhibition of *Aeromonas hydrophila* was remarkably observed in the extract of Stink Week. Moreover, it was found that the crude extracts of Boesenbergia and Stink Week could inhibit the growth of *Staphylococcus epidermidis* and *Acinetobacter baumannii*. Whereas, only Stink Week crude extract showed antimicrobial activity against *Pseudomonas aeruginosa*.

Keywords : Crude herbal extracts, Asiatic Pennywort, Boesenbergia, Stink Week, antimicrobial activity