

Antibacterial Activity of Methanol Extract of Leaves of *Blumea balsamifera* Targeting Pathogens Contributed of Bacterial Skin Infections

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ABSTRACT

The skin has the largest surface area of all of the body organs and is the most exposed organ. Although the skin is remarkably effective in providing protection against the external environment, skin infections are nevertheless a common presentation in most family practices. *Blumea balsamifera*, a flowering plant, known as “Da Feng Ai” is used in traditional Thai and Chinese medicine for the treatment of septic wounds and other infections. In this study, we aim to investigate whether the methanol extract of *Blumea balsamifera* is able to treat bacterial skin infections by determining the antibacterial activity of *Blumea balsamifera* against *Staphylococcus aureus* ATCC 25923, Methicillin-Resistant *Staphylococcus aureus* ATCC 43300, *Pseudomonas aeruginosa* ATCC 27853 and *Streptococcus pyogenes* ATCC 49399 using well diffusion method. Antibacterial activity of the plant was detected against *Staphylococcus aureus*, Methicillin-Resistant *Staphylococcus aureus* and *Streptococcus pyogenes* showing positive zone inhibitions. Minimum Inhibitory Concentration (MIC) and Minimum Bactericidal Concentration (MBC) of the plant were also evaluated, showing the MIC of 0.39 mg/ml against *Streptococcus pyogenes*, 6.25mg/ml against *Staphylococcus aureus* and Methicillin-Resistant *Staphylococcus aureus*. The positive results indicate that *Blumea balsamifera* can act as an antibacterial agent to treat bacterial skin infection caused by *Streptococcus pyogenes*, *Staphylococcus aureus* and Methicillin-Resistant *Staphylococcus aureus*.