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STEM AQUEOUS EXTRACT IN Plasmodium falciparum
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ESSENTIAL OIL EXTRACT OF Citrus Aurantifolia L. HAS BETTER ANTIBACTERIAL EFFECT THAN SULFUR TOWARDS Staphylococcus epidermidis

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Abstract

The use of sulfur as the cure of most common skin disease is well known around the world. But its effectiveness is quite not reliable some disease such as for acne vulgaris, the multifactorial skin disease. One of the cause for acne growth is bacterial infection, including Propionibacterium acnes and Staphylococcus epidermidis. Meanwhile, some research suggests that essential oil of Citrus aurantifolia L., which is usually used for cooking, have the antibacterial activity. The purpose of this study is to compare the antibacterial activity of sulfur and essential oil of Citrus aurantifolia L. toward the acne causing bacteria, Staphylococcus epidermidis. This research was laboratory experimental study. The essential oil extract of Citrus aurantifolia L. was made with Water and Steam Distillation while we use sulfur in the form of powder. This extract was examined in Staphylococcus epidermidis. Experimental method is serial dilution. Result was analyzed descriptively with Minimum Inhibitory Concentration (MIC). The examination in each bacterium was repeated 5 times. The result showed that essential oil extract of Citrus aurantifolia L. has ability to inhibit the growth of Staphylococcus epidermidis at concentration 25%. While the ability of sulfur to inhibit the growth of Staphylococcus epidermidis on 50% or no inhibition at all (visual observation). From result repetition in 5 times, gram positive is more stable rather than gram negative. In conclusion, the essential oil extract of Citrus aurantifolia L. has better antibacterial effect than sulfur towards Staphylococcus epidermidis. MIC for essential oil of Citrus aurantifolia L. at 25% while for MIC sulfur at 50% (FMI 2012;48:115-120).

Keyword : antibacterial, Citrus, hystrix, DC, sulfur, Staphylococcus, epidermidis,