

# Effect of Aqueous Extracts of Herbal Tea on Growth of *Propionibacterium acnes*

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## ABSTRACT

*Propionibacterium acnes* are one of the major reasons for causing acnes, such as lipase secreted from the human sebaceous follicle to decompose triglycerides of sebum and then to release acetic acid, propionic acid and butyric acid so that results in skin ulceration and inflammation. Gas Chromatography (GC) was employed in this research to analysis the content of acetic acid, propionic acid and butyric acid. The aims of this research were to investigate inhibit effect of *P. acnes* by 5 and 10 mg/mL extracts of 12 herbal tea. Extracts of herbal tea at 5 mg/mL could effectively control growth of *P. acnes*. Dry weight of microorganism from *Lavandula officinalis*, *Melissa officinalis* and *Calendula officinalis* were only 0.2-0.4 mg, which had great effect of inhibition. In terms of 10 mg/mL, dry weight of *P. acnes* from *Calendula officinalis* was  $18.61 \pm 1.33$  mg, obviously higher than that of control group (P

Keywords : *Propionibacterium acnes*, Extracts of herbal tea, Acetic acid, Propionic acid, Butyric acid

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