

Barks and leaves of lauracea plants as anti-acne

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Abstract: Acne vulgaris is an inflammatory skin disease that is caused by several factors, including increased sebum production by sebaceous glands, follicular keratinization of sebaceous ducts and an imbalance of microorganisms compared to the normal microbial distribution in healthy tissue. These factors interact, resulting in the following symptoms; Microbial growth increases. Pharmacological activities the *Lauraceae* family which have been reported from include antioxidant, antipruritic activity, antiseptic, decongestant and carminative. This research was conducted to assay the compounds, the biological activity of the *Lauraceae* plant essential oil (EO) could against *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Cutibacterium acnes*. EO Were isolated by steam water distillation and had antibacterial effects were analyzed by microdilution in broth medium and EO compounds were analyzed by GC-MS. The bark yield is the same for three species *Cinnamomum burmanni*, *Cinnamomum verum* and *Cinnamomum champora*, while the yield in the leaves was *Cinnamomum champora*. The most abundant components present in *Neolitsea cassia* leaves cinnamyl acetate, *Neolitsea cassia* bark beta-citronellol, linalool, e-citral and geraniol, *Cinnamomum verum* bark eugenol, *Cinnamomum burmanni* leaves linalool, alpha-terpineol, eucalyptol, cinnamaldehyde, caryophyllene, cinnamyl, leaves of *Cinnamomum camphora* contains camphor. The highest antimicrobial activity against *Cinnamomum acnes* was given by oil from the leaves and bark of *Neolitsea cassia*, against *Staphylococcus aureus* and by oil from the bark of *Cinnamomum verum* and *Neolitsea cassia* and *Cinnamomum burmannii* leaves. The oil of *Cinnamomum champora* leaves gave better activity than the barks against these microbes. It was found that the leaves of *Cinnamomum champora* had the highest yield of oil compared to the other part of *Lauraceae* plants tested and it has a strong antibacterial activity toward three bacteria commonly present in acne vulgaris.

Keywords: GCMS spectrum, antimicrobial, *Cinnamomum species*, EO.
