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Chemical Composition and *In vitro* Antimicrobial, Anti-MRSA Activities of Essential Oil of *Clerodendrum inerme* (L.) Gaertn- grown in Western Ghats Region

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Abstract: The present study examines the chemical composition of essential oil of*Clerodendruminerme* (L.) Gaertnleavesand belongs to the family Verbenaceae. The GC-MS analyses revealed that the presence of 18 compounds in the essential oil obtained from hydro distillation of*C. inerme* leaves. The major essential oil component was isoeugenol (35.50%), dibutyl phthalate (27.52%), eugenol (5.67%), α-pinene (5.54%),other minor components are Benzoic acid, 4-formyl-benzoic acid ethyl ester (3.44%) and 2-Nitro-1-octanol (4.08%). The *invitro* antibacterial, antifungal and anti MRSA activity against selected pathogens were evaluated, the zone of inhibition and minimum inhibitory concentrations showed that the tested essential oil has very significant antimicrobial and anti MRSA properties.These findings are very useful and provide scientific evidence that the plant is used for curing skin diseases. There are few reports available for the essential oil of *C. inerme.* There is no report on the antimicrobial activity of essential oil of *C.inerme.* This is the first kind of report of essential oil for its *invitro* antimicrobial activity.

Key words:*Clerodendruminerme,* essential oil,antibacterial activity, antiMRSa and GC-MS analysis.

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