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***Plectranthus zeylanicus* Benth: A potent source of secondary metabolites with antimicrobial, disinfectant and anti-inflammatory activities**

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Plectranthus zeylanicus Benth is widely used in Sri Lankan folk medicine as a remedy for inflammatory and microbial diseases. In continuation of our previous work on anti-inflammatory activity in lipophilic extracts of this plant, the present investigation was undertaken to evaluate the antimicrobial and disinfectant potency in different organic extracts of *P. zeylanicus* and to isolate bioactive secondary metabolites. The activity-guided fractionation of the most potent dichloromethane extract resulted in the isolation of a pure compound which was extensively studied for its antimicrobial activity by broth microdilution method. Further, its disinfectant potency was evaluated by surface disinfectant assay, while the anti-inflammatory activity was determined by investigating its ability to inhibit the pro-inflammatory enzymes 5-lipoxygenase (5-LO) and microsomal prostaglandin E₂ synthase (mPGES)-1. The spectral data revealed the identity of this compound as 7 α -acetoxy-6 β -hydroxyroyleanone. It displayed strong antibacterial activity against clinical isolates of methicillin-resistant *Staphylococcus aureus* along with an extremely potent disinfectant capacity, which is comparable to the potency of a commercial disinfectant. Interestingly, it effectively inhibited 5-LO with IC₅₀ of 1.3 and 5.1 μ g/mL in cell-free and cell-based assay, respectively. Thus, the observed bioactivities of 7 α -acetoxy-6 β -hydroxyroyleanone rationalize the ethnomedicinal significance of *P. zeylanicus*.

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