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ABSTRACT

Quorum quenching is the process of disrupting bacterial communication preventing the production of virulence expression in bacteria. The extracts were tested for anti-bacterial property. The results showed that there is no zone of inhibition around the disks, thus anti-bacterial property is absent. Furthermore, the extracts were tested to Gram-positive and Gram-negative bacteria. For Grampositive bacteria, Staphylococcus aureus was used to test the inhibition of alpha toxin and DNase production. In alpha toxin test, aqueous flower and methanolic leaf has no halo around the colonies while in DNase methanolic leaf has no clear zone around streaks, both tests contain quorum quenching. For Gram-negative bacteria, Pseudomonas aeruginosa was used to test the inhibition of swarming motility and pyocyanin. In swarming test, aqueous leaf, methanolic leaf and methanolic flower inhibit the spreading movement of bacteria. In pyocyanin test, aqueous leaf and flower detect that has capability to inhibit the said virulence assay because their value is less than the negative control at (p<0.05). The Lantana camara leaf is highly significant for having quorum quenching activity while the flower showed poor inhibition compared to leaf. Among the four extracts, methanol leaf was positive in three virulence assays which performed the highest quorum quenching activity.