



ABSTRACT

An evolving problem with regards to the misuse of antimicrobial drugs is the emergence of higher-level tolerance of target organisms against available broad-spectrum antibiotics. Quorum quenching is another approach to combat bacterial infections by disrupting its communication or quorum-sensing mechanisms to prevent cell-density associated pathogenicity, while minimizing drug resistance development. Quorum quenching potential of *Catharanthus roseus* leaf extracts against *Pseudomonas aeruginosa* and *Staphylococcus aureus* was conducted to identify the potential of the plant extracts to inhibit the quorum sensing mechanism. Disk-diffusion assay was done to test the extracts' antibacterial properties. Its quorum quenching potential was tested against *Chromobacterium violaceum*. Its quorum quenching ability was then tested against *Pseudomonas aeruginosa* and *Staphylococcus aureus*. Results show that the leaf extracts of the plant do not have antibacterial properties. It exhibited quorum quenching against the virulence factors of *Staphylococcus aureus*, hemolysin and DNase. Quorum quenching was not observed against *Pseudomonas aeruginosa*, its pyocyanin production and swarming motility. Therefore, the plant has the potential to inhibit bacterial communication that is important in preventing the formation of resistance of bacteria while having its therapeutic effects on infected individuals.