



ABSTRACT

The increasing incidence of multidrug-resistant pathogens is a chronic problem in the field of pharmacognosy and medicine. The occurrence is often attributed to the indiscriminate use of antibiotics, which has placed so much selective pressure to bacteria to develop into resistant forms. 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. The study determined the quorum quenching ability of *Sonchus oleraceus* Linn. (Sow thistle) leaf and flower against *Staphylococcus aureus* and *Pseudomonas aeruginosa*. All extracts did not show presence of inhibitory activity against the test bacteria which made it eligible for other virulence assay tests. In *S. aureus*, aqueous flower inhibited both alpha hemolysis and DNase production. Methanol leaf and flower extracts inhibited hemolysis only. Aqueous leaf extract did not show any quorum quenching activity at all in *S. aureus*. In *P. aeruginosa*, all extracts inhibited pyocyanin production compared to the control. All extracts reduced swarming motility in *P. aeruginosa*. Among the extracts of the plant used, aqueous flower appeared to have the highest quorum quenching activity.

Key words: Quorum quenching, Sonchus oleraceus Linn., Staphylococcus aureus, Pseudomonas aeruginosa