Efficacy of Three Varieties of Syzygium aqueum (Tambis) as Antimicrobial Agent and its Bioactive Component

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Abstract
The use of medicinal plants is a deeply rooted tradition which transcends the social strata of the Philippines. Syzygium aqueum (water apple) belongs to family Myrtaceae found to have red, green and white varieties. The study aimed to compare the three varieties of Syzygium aqueum in its antimicrobial activity and the presence of secondary metabolites. Fruits and leaves were collected and subjected to histochemical test, phytochemical analysis and antimicrobial activity against Gram negative bacteria Escherichia coli, Pseudomonas aeruginosa; Gram positive bacteria Staphylococcus aureus, Bacillus subtilis; and fungi Aspergillus flavus and Saccharomyces cerevisiae. The screening of bioactive components indicates the presence of alkaloid, tannins, glycosides, formic acid, tartaric acid, flavonoids and steroids. Crude ethanolic extracts of fruits and leaves of the three varieties showed to be effective against the growth of S. aureus, B. subtilis, E. coli and P. aeruginosa. However, no inhibition is observed against Aspergillus flavus, Saccharomyces cerevisiae.