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Phytochemical Analysis and their Antibacterial Efficacy of some Medicinal Plants of the Local Areas of Tumakuru

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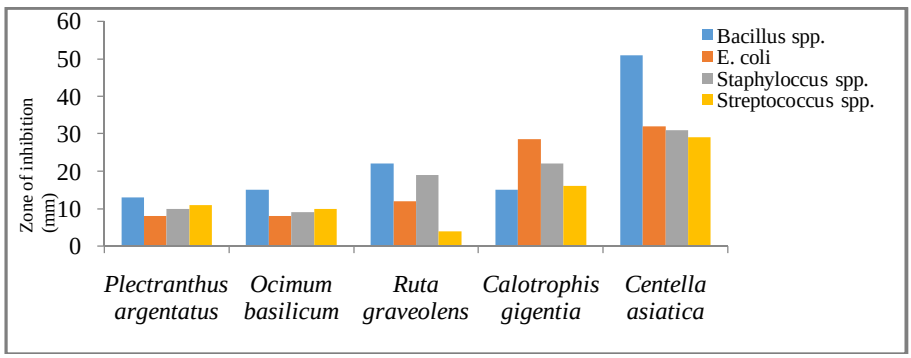
ABSTRACT

Microorganisms are becoming resistant to drugs used to kill them, hence the need for alternative drugs to treat them. Phytochemicals have been associated with reduction of drug resistant forms of bacteria. Pharmacological studies have reported appealing results showing the importance of using plant extract to treat diseases. The present study explores the photochemical and antibacterial efficacy of leaf extracts of Plectranthus argentatus, Ocimum basilicum, Rutagraveolens, Calotrophis gigentia, and Centella asiatica. The phytochemical analysis revealed that major phytoconstituents of Plectranthus argentatus are alkaloids, terpoinoids, phenols, tannins, flavonoids and steroids. Ocimum basilicum L. revealed the presences of glycosides, tannins, Saponins terpenoids and phenols. Rutagraveolens L. has shown the presence of steroids, flavonoids, phenols, tannins, terpenoids and saponins. Phytochemical analysis of Calotrophis gigentia showed the presence of alkaloids, phenols, saponin, and steroids. Similarly, Centella asiatica revealed the presence of flavanoids, tannins, terpenoid, saponin and steroids. The antibacterial activity of the plant extracts was screened by agar well diffusion method against the bacterial strains such as Bacillus, E. coli, Staphylococcus and Streptococcus respectively. Hence, further work has to be carried out to isolate and identify the active constituents of the plants responsible for antibacterial activity.

Graphical Abstract



Antibacterial activity of plant extracts against some human pathogens

Keywords: Medicinal plants, Photochemical, Antibacterial efficacy, Phytoconstituents, Zone of inhibition.