

SCREENING AND EVALUATION OF ANTI-MICROBIAL ACTIVITY IN *COLEUS FORSKOHLII* AND *STEVIA REBAUDIANA*

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Abstract: The results showed that aqueous and alcoholic extracts of leaf of parent plant of *Coleus forskohlii* showed antibacterial activity against *Staphylococcus aureus*, *Staphylococcus epidermidis* and *Bacillus* species. Alcoholic extract of stem of parent plant of *Coleus forskohlii* showed significant activity against *Staphylococcus aureus* and *Staphylococcus epidermidis*. Antibacterial activity shown by the alcoholic as well as aqueous extracts of *in vitro* raised plant of *Coleus forskohlii* against the gram-positive bacteria was tested. The significant amount of activity against *Bacillus* species only was shown by the alcoholic leaf extract but the alcoholic stem extract exhibited mild but statistically insignificant ($P < 0.05$) activity against *Enterococcus faecalis* and *Bacillus* species. The aqueous leaf extract of parent plant of *Stevia rebaudiana* exhibited significant activity against only *Staphylococcus epidermidis* and the alcoholic leaf extract showed significant activity against *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus faecalis* and *Bacillus* species. MIC values of the alcoholic leaf extract of parent plant of *Coleus forskohlii* against the tested gram-positive bacterial species ranged from 9.43×10^{-3} to 18.65×10^{-3} $\mu\text{g/ml}$ and MIC values of the aqueous leaf extract of parent plant of *Coleus forskohlii* against the tested bacterial species ranged from 3.15×10^{-3} to 4.65×10^{-3} $\mu\text{g/ml}$. MIC values of the alcoholic leaf extract of parent plant of *Stevia rebaudiana* against the tested gram-positive bacterial species ranged from 9.43×10^{-3} to 25.15×10^{-3} $\mu\text{g/ml}$ and aqueous leaf extract of parent plant of *Stevia rebaudiana* against *Staphylococcus epidermidis* was found to be 12.5×10^{-3} $\mu\text{g/ml}$.

Keyword: Antimicrobial activity, MIC, *Coleus forskohlii*, *Stevia rebaudiana*

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