

Evaluation of Antibacterial Property of *Colchicum luetum* Baker (Liliaceae) of Kashmir Himalayas

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ABSTRACT

The present study aimed at evaluating the antimicrobial potential of Aqueous and Ethanolic extracts of *Colchicum luetum* Baker traditionally used medicinal plant with multiple Medicinal (therapeutic) properties. The bacterial strains employed *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Escherichia coli*. And the five different concentrations i.e., 10, 30, 50, 80 and 100 (mg ml⁻¹) of both aqueous and ethanolic extracts against the bacterial strains. Antibacterial activity was observed with both the ethanol and aqueous extracts. Highest antibacterial activity was exhibited by aqueous extract with zone of inhibition *Escherichia coli* (82.88%), *Pseudomonas aeruginosa* (80.14%) , *Staphylococcus aureus* (79.05%) at the concentration of 100 mg/ml plant extract. Ethanolic extract showed highest antibacterial activity against *Staphylococcus aureus* and *Pseudomonas aeruginosa* with zone of inhibition (81.92 %) and (80.03 %) at the same concentration of (100 mg/ml) respectively. The study concludes that the plant possess novel compounds with significant antibacterial properties. Isolation and characterization of these novel compounds could provide potent antimicrobial agents to combat pathogenic infections / Diseases.

Key Words: Antimicrobial, Baker, *Colchicum luetum*, Zone of Inhibition,