Antimicrobial Activities of Whole Plant of *Voila canescens* and *Bauhinia variegate*

Dwarika Prasad

Department of Chemistry, Lovely Professional University Phagwara Punjab, India.

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In the present new investigation an attempt have been done to screen the antimicrobial activity of two commonly available medicinal plants of Garhwal region. The plants selected for the study are Whole plant of *Voila canescens* and *Bauhinia variegate*. These plants have been tested and gave effective antimicrobial activity against *E. coli*, *Staphylococcus aureus*, *Psudomonaus* and *Bacillus subtilis* which have been procured from Lovely professional university panjab.

**Key words:** Antimicrobial activity, *Voila canescens*, *Bauhinia variegate*.

EXPERIMENTAL

**Plant material**

The whole plant of Whole plant of *Voila canescens* and *Bauhinia Variegate* were collected from Bacchear District. Chamoli Uttarakhand in the month of October and identified by Department

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* To whom all correspondence should be addressed.
Botany, P.G. College Gopeshwar where voucher specimen were deposited.

**Extraction**

Exactly 150 g each of the powdered three plants were separately extracted in cold using 60% alcoholic for 4 days. The ethanol extract was concentrated to dryness through rotatory evaporator.

**Sensitivity testing**

The sensitivity testing of the extracts were determined using agar well diffusion method(4&6). The bacterial isolates were first grown in nutrient broth for 18 h before use. The inoculums suspensions were standardized and then tested against the effect of the two plant extracts at a concentration of 20 mg/ml each in DST medium. The plates were later incubated at 37°C ± 0.5°C for 24 h after which they were observed for zones of inhibition (Table1 and 2). The effects were compared with that of the standard antibiotic streptomycin at a concentration of 1 mg/ml (Khan and Omotoso,2003).

**RESULTS AND DISCUSSION**

*Voila canescens* extract showed positive tests for some bacterial cultures as given below:

(i) *E.coli* – solution of *Voila canescens* extract showed 10 mm zone of inhibition against *E.coli*.

(ii) *Bacillus* – solution of the extract showed 12 mm zone of inhibition against *Bacillus*.

(iii) *Staphylococcus Aureus* – solution of the extract showed 20 mm zone of inhibition against *Staphylococcus aureus*.

(iv) *Psudomonas* - solution of the extract showed 20 mm zone of inhibition against *Psudomonas*

**Antibacterial activity of *Voila canescens* Extracts:-**

<table>
<thead>
<tr>
<th>Extract of seeds</th>
<th>Bacteria Culture</th>
<th>Zone of inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extract of whole plant</td>
<td><em>E.coli</em></td>
<td>10</td>
</tr>
<tr>
<td>Extract of whole plant</td>
<td><em>Bacillus subtilis</em></td>
<td>12</td>
</tr>
<tr>
<td>Extract of whole plant</td>
<td><em>Staphylococcus Aureus</em></td>
<td>20</td>
</tr>
<tr>
<td>Extract of whole plant</td>
<td><em>Psudomonas</em></td>
<td>14</td>
</tr>
</tbody>
</table>

*Bauhinia Variegate*

Extract showed positive tests for two bacterial cultures as given below:

(i) *E.coli* –100mg/ml solution of this extract showed 10 mm zone of inhibition against *E.coli*.

(ii) *Bacillus* –100mg/ml solution of this extract showed 25 mm zone of inhibition against *Bacillus*.

**Antibacterial activity of extract of Whole plant of *Bauhinia Variegate***

<table>
<thead>
<tr>
<th>Extract</th>
<th>Culture</th>
<th>Zone of inhibition</th>
</tr>
</thead>
<tbody>
<tr>
<td>extract of whole plant</td>
<td><em>E.coli</em></td>
<td>10 mm</td>
</tr>
<tr>
<td>extract of whole plant</td>
<td><em>Bacillus subtilis</em></td>
<td>25 mm</td>
</tr>
</tbody>
</table>

**REFERENCES**