Formulation and development of a herbal based mouth gargle by using African black honey

Shibanjan Paul Roy, Kamal Deka and Shyam Prakash Rai

Abstract
Actually for tonsillitis gargles used for this purpose and these gargles are the aqueous solution as we know. For mild throat infections these gargles are used to relieve soreness. In this research galangal directly collected from Thailand, poblano pepper collected from Mexico, Chinese cinnamon collected from China, African black honey from South Africa and vasaka leaf powder collected by online for this research. In this research total works done under the guidance of Guide-Mr. Shibanjan Paul Roy. Mr. Kamal Deka and Mr. Shyam Prakash Rai performed for the practical works and others work and note the reading.

Keywords: Indian mustard, path coefficient analysis

Introduction
In this research organic galangal roots used for the preparation of gargles for the relieve soreness of mild throat infection. As we know about the definition of gargle that it wash one’s mouth and throat with a liquid kept in motion by exhaling through it. As in this research the borosilicate glass bottles closed with plastic screw cap used. The other side it will be labelled – For external use only.

Gargle with Galangal
By using organic galangal root simmer 15ml grated in a cup of warm water for 12min, after strain the liquid and add 5ml of African black honey or pinch of poblano pepper. For every 32min use this as a gargle until throat feels up to a relaxant mode.

Method of Preparation
In this research galangal directly collected from Thailand, poblano pepper collected from Mexico, Chinese cinnamon collected from China, African black honey from South Africa and vasaka leaf powder collected by online for this research.

Table 1: The formulas used to prepare the formulation of Gargle

<table>
<thead>
<tr>
<th>S. NO</th>
<th>Ingredients</th>
<th>F1-Low conc.</th>
<th>F2-Medium conc.</th>
<th>F3-High Conc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Galangal</td>
<td>9.4gm</td>
<td>17gm</td>
<td>26gm</td>
</tr>
<tr>
<td>2</td>
<td>Vasaka powder</td>
<td>2.5gm</td>
<td>2.9gm</td>
<td>3.4gm</td>
</tr>
<tr>
<td>3</td>
<td>Chinese Cinnamon</td>
<td>0.1gm</td>
<td>0.1gm</td>
<td>0.1gm</td>
</tr>
<tr>
<td>4</td>
<td>Poblano pepper</td>
<td>0.5gm</td>
<td>0.05gm</td>
<td>0.05gm</td>
</tr>
<tr>
<td>5</td>
<td>African Black Honey</td>
<td>5ml</td>
<td>10ml</td>
<td>15ml</td>
</tr>
<tr>
<td>6</td>
<td>Distilled Water</td>
<td>q.s. to 100ml</td>
<td>q.s. to 100ml</td>
<td>q.s. to 100ml</td>
</tr>
</tbody>
</table>
The bacterial strains collected from Malbazar by Lab. The antibacterial activity of gargle against stain Streptococcus mutans, Staphylococcus aureus and E.faecalis. For this research utilization of MHA agar used for the activity to determine the zone of inhibition. After prepared Muller hinton agar and sterilize for 47minutes at 120lbs. After into the sterilized plates media agar poured and let stable for solidification. By using the well cutter the wells were cut and swabbed the test organisms. After by using different concentrations directly loaded and plates will be incubated for 25 hours at 37 °C. After the zone of inhibition incubation time were measured.

**Result and Discussion**

**Antimicrobial Activity**

The gargle antimicrobial activity contains Galangal, Vasaka powder, Chinese cinnamon, poblano pepper and African black honey. The antimicrobial effect of gargle tested against streptococcus mutans, staphylococcus aureus and E. faecalis. The gargle showed zone of inhibition against S. mutans, S. aureus and E. faecalis 19.5,22.75,24.37mm at 100 µL concentration. The antibacterial effect of this herbal based gargle formulation has the capability to attach to the bacterial cell and inhibit it properly.

**Acknowledgement**

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