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PREPARATION AND EVALUATION OF ANTISEPTIC HERBAL Handwash W.S.R. to Messua Ferra.

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ABSTRACT
The hands are the primary routes of transmission of infection to patients. Hence, it brings up the use the anti-septic for hand washing purposes. Herbs are known to have antimicrobial properties thus utilization of such herbs as antimicrobial agent is a common practice now. Present study involves formulation of herbal hand wash using extract of Messua ferra. The results may be attributed to the phytoconstituents present in the extracts. The formulation also evaluated for the quality parameters.

Keywords: Hand wash, Herbal formulation, Messua ferra.

1. INTRODUCTION
Skin is one of the most important parts of the body and very susceptible to microbial infections; this requires great protection and care. Skin protection from harmful micro-organisms can be achieved by proper skin care and hand washing is an important process of skin care. Contaminations through hand is very often since hands are directly exposed to the environment and utilized mostly for the handling purpose thus appropriate hand wash with antimicrobial agent must require to assure removal of transient microorganisms. Hand washing is also important in homes and day to day care operations. Hand washing is an important way to reduces spread of disease. Hand washing removes harmful material from hands along with harmful microorganisms. Plants with medicinal properties are being used as a traditional medicine anciently. The extract from the different parts of various medicinal plants have been employed as a natural remedy in curing various ailments and diseases. Recently the medicinal properties of the plants have been explored largely as therapeutic as well as cosmetic agent.1 Messua ferra, belonging to the family guttif- erace, is a medium sized tree. The major constituents are Mensnol, Silosterol, fatty acids, Cyclohaxodine, Mesuanic acid, a-β AMYRIN. Therapeutically it possesses anti-microbial, anti-inflammatory and anthelminthic properties. Many researchers have investigated plant extract for various purposes. The present study focuses on a novel hand wash formulation with the extract of Messua ferra having antimicrobial and anthelminthic properties, which can also be used as a regular hand-wash.1

2. MATERIALS AND METHODS
Plant material were collected, dried and grinded into powder and stored for further study. Other ingredients used were of analytical grade. The hand wash was prepared from the methanolic extracts of plant material 10 g of the powdered material were extracted with 100 ml of methanol solution (9 parts of methanol and 1 part of distilled water) by means of extraction. This mixture was heated on water bath for 1 hour. The content was filtered through

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Whatman filter paper in order to get particle free extract.

2.1. Preparation of Hand-wash

The hand wash was prepared by adding methanolic extracts of plant material in glycerine and distilled water. Finally, sodium lauryl sulphate, methyl paraben, colouring and flavouring agents were added as per the requirement of standard procedure for preparation of hand wash. The solution was made homogenous using homogenizer under room temperature and stored for the further analysis.

2.2. Evaluation

Stability

The stability studies were carried out by storing at different temperature conditions like 40°C, 25°C & 37°C for 1 week. During the stability studies change in colour and phase separation was observed in the formulated hand wash.

pH

The pH was determined by using digital pH meter.

Viscosity

The viscosity of hand wash was determined by using viscometer.

3. RESULTS AND DISCUSSION

Glycerine was used as viscous media; Methyl paraben and Sodium lauryl sulphate were used as preservatives and surfactant respectively. The formulation evaluated against various quality parameters like pH and viscosity. The results of quality study revealed that the formulation lies within quality parameters as shows in Table 1, the formulation was found to be clear and homogenous with pH value of 6.8 which is optimal for skin use. The rheological value also supported the good quality of hand wash. The stability study of formulation was also performed and it was found to be stable since no phase separation was observed.

4. CONCLUSION

The herbal hand wash was prepared as antiseptic agent and evaluated for antimicrobial activity. Results of study suggested that the constituents of the extract were effective against the skin pathogens. Thus, it can be concluded that such type of herbal extract can be incorporated in bases in order to prepare superior anti-microbial hand wash with less side effects.

5. REFERENCES


5. Prince kumar Pal, Palash Mandal; Formulation & evaluation of hand wash of vitex negundo; ISSN No. 2278-4357.

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6. TABLES

Table No. 1: Composition of Hand wash

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Ingredient</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Drug Extract (g)</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Glycerine (ml)</td>
<td>5</td>
</tr>
<tr>
<td>3</td>
<td>Methyl paraben (ml)</td>
<td>0.2</td>
</tr>
<tr>
<td>4</td>
<td>Sodium lauryl sulphate(g)</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Distilled water</td>
<td>Q.S.</td>
</tr>
</tbody>
</table>

Table No. 2: Quality Control Evaluations of Formulation

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Parameters</th>
<th>observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Appearance</td>
<td>Brown</td>
</tr>
<tr>
<td>2</td>
<td>pH</td>
<td>6.56</td>
</tr>
<tr>
<td>3</td>
<td>Specific gravity</td>
<td>16.56</td>
</tr>
<tr>
<td>4</td>
<td>Viscosity (m pascals)</td>
<td>40-120</td>
</tr>
<tr>
<td>5</td>
<td>Refractive index</td>
<td>1.4005 at 29.2°C</td>
</tr>
</tbody>
</table>