DEVELOPMENT OF PEEL OFF MASK FROM TRIPHALA HERBALS REMEDY

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This research aims to study 1) the amount of antioxidants by DPPH method 2) development of Peel off Mask from Triphala Herbals Remedy. 3) to test the effectiveness of peeling facial mask from Triphala extract.

The research found that 1) Ascorbic acid has an IC50 value of 6.105 ± 0.26 mg/ml. Triphala extract has an IC50 value of 1.88 ± 3.1 mg/ml. Determination of total phenolic content using method Folin-Ciocalteu Phenol reagent from the gallic acid standard chart. It was found that Triphala extract had total phenolic content equal to 0.613 ± 0.001 mg/ml. 2) Development of 4 peel-off mask products by formula 1, without extracting and formula 2, 3, 4, containing 1, 2, 3 percent staining. Test physical properties and product stability the film drying time of formula 1 is 28 ± 0.3 seconds. Formulas 2, 3 and 4 have the same drying time 27 ± 0.3 seconds, the pH values are 5.10, 5.34, 5.89 and 5.60, respectively. In order to test the intolerance of all 20 volunteers, it was found red marks in volunteers and red marks in 1 volunteer (5 %). The skin moisturisation test results found that before and after using Formula 1 (formula without extract), there was no statistically significant difference at the level of 0.05, before use and after using the formula 2,3,4 (formula containing extracts). The sample has different moisture values with statistical significance at the level of 0.05. 3) the satisfaction assessment found that Volunteers are satisfied with the products as follows. formula 2 scores the highest satisfaction score in many aspects and is at a high level but not significantly different from other formulas at the level of 0.05.

Keyword: antioxidant activity, phenolic compounds, triphala, peel off mask

Introduction

Nowadays, people are more interested in health and beauty including eating healthy food and exercising. The pursuit of various methods that can help slow down aging facial skin that is an important part of the body which exposed to daily sun pollution. Cleaning the face with a cleansing product alone is not enough. The peel-off facial mask is a new innovation that can cleanse the skin more than regular face wash. The formulation of a face mask contains many important substances, such as moisturizing substances, vitamins, and antioxidants, in order to give the face mask its interesting properties.

Peel-off facial mask is a product used on the face in a liquid or paste style. Then let it for a period of time until dry. The purpose of use is to help make the skin look smoother by
causing the transient tightening effect and cleaning the skin. Psychological and cleaning because after use, the face becomes warm and tight.

The result is a rejuvenated face, while the colloidal clays in the product absorb the dirt and grease on the face. When the product is eliminated, such as washing, wiping, or pulling down a piece of dirt on the face including acne, blackheads and dead cells will be eliminated with this product.

Long used as a general health tonic in Ayurveda (the traditional medicine of India), Triphala is now touted as a natural remedy for a variety of health conditions. A blend of three fruits, Triphala contains Indian gooseberry (Emblica officinalis), black myrobalan (Terminalia chebula), and belleric myrobalan (Terminalia belerica). In Sanskrit, the word Triphala translates to "three fruits."

Triphala is considered an herbal medicine in Ayurveda. The elixir formula consists of 3 types of dried fruits: Terminalia chebula, Terminalia bellirica and Phyllathus emblica in a ratio of 1:1:1. That makes long life with antioxidant activity Is a source of vitamin C. Phenolic substances And favonoid groups.

Study of compound quantity Phenolic and Anti-Oxidation Activity of Triphala Extract. It was found that Triphala has a high amount of phenolic compounds. And has anti-oxidation effect. Therefore Triphala should have the potential to be used as a ingredient for further health promotion.

The purpose of the study was to development of Peel off Mask from Triphala Herbals Remedy and study the amount of antioxidants. In addition to making the peel-off facial mask is a new product on the market with its unique characteristics.increase and increase the value of natural Thai herb extract.

The Objective Of Study

This research aims to study 1) the amount of antioxidants by DPPH method 2) development of Peel off Mask from Triphala Herbals Remedy. 3) to test the effectiveness of peeling facial mask from Triphala extract.

Materials And Methods

Material

Ascorbic acid was from Caro Erba (Italy), 2, 2-diphenyl-1-picrylhydracyl (DPPH), α-tocopherol and were from Sigma (USA). Folin-Ciocalteu reagent was from Merck (Germany) and other analytical grade chemicals were used.

Preparatin Of Plant Extracts

The dried fruits of three fruits, Triphala contains Indian gooseberry (Emblica officinalis), black myrobalan (Terminalia chebula), and belleric myrobalan (Terminalia belerica) were collected from MED YA SHOP, Samut Songkhram provinc, Thailand. The ethanolic extract of Triphala was produced. The plant powder was macerated in 95% ethanol for 7 days then filtered through Whatman® No.4 paper. The supernatant was evaporated under rotary evaporator. The extracts were kept at 4°C until used.
Determination Of Total Phenolic Content

The total phenolic content was determined by the Folin-Ciocalteu method. The extracts were dissolved in methanol at various concentrations (0.1 - 5.0 mg/ml), then the extract solution (0.5 ml) was mixed with the Folin-Ciocalteu reagent (0.25 ml) and 20% sodium carbonate (1.25 ml). After mixing and standing at room temperature for 30 min, the absorbance was measured at 765 nm. The total phenolic content was expressed as mg gallic acid equivalent/g dried extract.

Determination Of Dpph Radical Scavenging Activity

Determination of DPPH radical scavenging activity was determined by the method. The extract was dissolved in methanol at various concentrations (0.1 - 5 mg/ml), then 2.8 ml of each extract solution was mixed with 0.2 ml of DPPH solution (1 mM in methanol). After incubation at room temperature for 30 min, the absorbance was measured at 517 nm. The negative (methanol) and positive (vitamin C) controls were run in parallel. The scavenging activity was calculated using the formula,

\[
\% \text{ scavenging} = \left( \frac{A_{517\text{control}} - A_{515\text{sample}}}{A_{517\text{control}}} \right) \times 100.
\]

Formulation

This Triphala Herbals Remedy may be used in a of Peel off Mask, the composition of which is as follows Table1

<table>
<thead>
<tr>
<th>ingredients (% w/w)</th>
<th>Formulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td>DI Water</td>
<td>76</td>
</tr>
<tr>
<td>Polyvinyl alcohol</td>
<td>10</td>
</tr>
<tr>
<td>Glycerin</td>
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</tr>
<tr>
<td>95% ethanol</td>
<td>5</td>
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<tr>
<td>Xanthan gum</td>
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</tr>
<tr>
<td>Triphala Extract</td>
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</tr>
<tr>
<td>Phenoxyethanol</td>
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</tr>
</tbody>
</table>

Evaluation Of Peel Off Mask Triphala

Hypoallergenic Test

Patch test was performed on 20 subjects, with the right side of the lower arm covered with saline. And on the left front of the lower arm, apply a peel-off type facial mask 4
formulas applied to the skin, 1 square cm in size and covered with non-irritating waterproof plaster for 24 hours and left open for 2 hours to observe allergic reactions.

**Moisture Efficiency**
Testing the moisture efficiency with 40 male and female volunteers aged 18-23 years. The subjects were to experiment with 4 products, 10 formulas, each by measuring the moisture value, starting with the Skin Digital Moisture Analyzer. Apply for the mask on the right forearm of the volunteer mask. Leave for 30 minutes 3 times a week and evaluate the effectiveness of the product using the method of measurement. Moisturize after using the product for 1 week. Observe and record the change results.

**Assessing Product Satisfaction**
Assessing product satisfaction by having 40 volunteers, 10 persons per formula, assess the satisfaction of the products according to the questionnaire. Designed in 4 sections as follows: Part 1 General information of the respondents, Part 2 Factor information about the types and reasons for choosing a mask, Part 3 The satisfaction with eye care, face mask Stripping out from the extract, tri-result, the hedonic scale questionnaire, which is the questionnaire of the respondents and section 4 suggestions.

**Results**

**Determination Of Total Phenolic Content**
The extract of Triphala t reacted with Folin-cicocalteu reagent and sodium carbonate then measured the absorbance using spectrophotometry. With a wavelength of 765 nm, and then absorb the obtained light values to analyze for total phenolic. From the standard graph of Gallic acid, it was found that Triphala extract had total phenolic content of 0.613 ± 0.001 mg of Gallic acid per milliliter.

**Determination Of Dpph Radical Scavenging Activity**
The extracts of Triphala catalyzed with The DPPH (2,2-Diphenyl-1-picrylhydrazyl radical scavenging capacity assay) was used to measure the absorbance using a 517 nm microplate reader and then use the absorbance obtained to calculate the ability. In eliminating free radicals as well as vitamin C.

From the experiment, it was found that the Triphala extract has the ability to eliminate free radicals, which is the IC$_{50}$ value of 1.88 ± 3.10 milligrams per milliliter. Show that Trivial extract has an IC$_{50}$ value greater than vitamin C.

**Formulation**
Preparing facial mask products from all 4 floor cream formulas, 4 flooring formulas were added by adding 0,1,2 and 3% trivial extracts, and 5 percent alcohol to the ground cream formula. 01, 02, 03 and 04 All 4 face mask formulas are clear, less viscous gel than plain cream. Formula 2 is yellowish, formula 3 is dark yellow, formula 4 is brown, the smell is orange. The The 4 formulas. When set aside for 3 months, no separation was found.

**Hypoallergenic Test**
An allergy test for 20 volunteers aged 18-23 years, with the test strips covering the inner arms for 24 hours after removing the test strips. The irritation effect was observed. The results showed that the test area With saline (negative control) no red marks were found in
any volunteers. While the area tested with facial mask products Red marks were found in 1 volunteer (5%).

**Moisture Efficiency**

Before use and after using Formula 1 (formulas without extracts) there is no statistically significant difference. Before using and after using the formula 2,3,4 (formula with extract), the sample group had the moisture content was statistically significant at the 0.05 level.

**Assessing Product Satisfaction**

The comparison of satisfaction of the peel-off facial mask products from the 4 formulations Treppa extracts showed no statistically significant difference at the 0.05 level.

**Conclusion**

From the study, it can be concluded that The results of the study of DPPH antioxidant activity showed that vitamin C and Triphala extract had IC$_{50}$ values of 6.11 ± 0.26 and 1.88 ± 3.1 milligrams per milliliter respectively, indicating that Triphala extracts had an IC$_{50}$ of 5 times less than vitamin C. Inhibiting antioxidants up to 5 times more than vitamin C.

Total Phenolic Analysis Results from the Gallic Standard Graph Found that Triphala extract is valuable. Total phenolic equals 0.613 ± 0.001 mg Gallic acid per milliliter. When comparing the total phenolic content of the standard Gallic acid substance.

The peel-off facial mask product from the developed herbal formula, Triphala, has an appropriate pH for the skin. And with a suitable dry period 95% of the subjects did not experience skin irritation. Facial mask products with extracts of every formula make the skin more moisturized after use. But when evaluating satisfaction from volunteers from all formula, found no significant difference (p <0.05) which means that all 3 formulas can be used.

However, when evaluating the texture of the product, Formula 2 is the most suitable. Because the texture is smooth, easy to spread, peeling and does not tear, but there are additional interesting observations in formula 3. Although the texture may not be as good as formula 2 that is the formula that can increase the moisture of the skin to the maximum.

Therefore, this formula can also be developed for people with dry skin.

From this research shows that The developed peel-off facial mask cream product has the potential to be developed as an cosmetic product at the industrial level and may be used as a guideline for the development of cosmetics from Triphala herbal medicine in the future.

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**References:**


