

Conference Paper

The Influence of Pumpkin Masker Usage on the Moisture of the Face Skin

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Abstract

Pumpkin fruit flesh has the ability to moisturize the skin. This study aims to determine whether there is an influence from the use of pumpkin mask on the moisture results of facial skin. This study was carried out by adult women aged 35–45 years who have dry facial skin. This research was carried out with treatment eight times in two times a week for four weeks. The method used in this study is experimental and the value in the treatment process used the skin analyzer test tool. After obtaining the results of the research data, the data analysis requirements were tested by normality test and homogeneity test using an average t -test of one party. Data analysis shows that t -count = 3.073 at the significance level $\alpha = 0.05$ and $dk = 8$, then t -table = 2.31, which means that t -count > t -table, then the null hypothesis (H_0) is rejected. Thus, there is the effect of using a pumpkin mask as a face mask against the moisture of dry facial skin.

Keywords: pumpkins masker, moisturize, dry skin

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1. Introduction

The skin has a very important role, skin should be maintained and maintained health. Not only the facial skin or parts that are open, but the skin throughout the body must get optimal attention and care. According to Sjarif, Skin is an essential and vital organ and is a mirror of health and life. The skin is also very complex, elastic and sensitive and varies in conditions of climate, age and race [1]. The condition of the skin when entering the transition phase or the age of 35-45 years the skin has facial skin that tends to dry [2]. This dry skin condition can cause chronic low-level inflammation according to Bowe dermatologist in *kompas daily* September 2018 [3]. The skin will experience wrinkles, look dull, and scaly [4] so that moisturization is one of the most important steps to restore the condition of the skin to become moist or sufficiently containing water [5]. This dry skin also requires extra and regular facial skin care [6].

Facial skin care such as using a face mask can overcome dry skin. The use of facial masks containing vitamins for dry skin, useful to tighten, soften and increase

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the moisture of the skin [7]. Facial masks can be made by using several types of plants to fruits. Fruit is the most popular base material for making masks. this is felt by the fruit to be very easy to obtain and easily applied directly. One of the fruits that can be used as a mask is yellow pumpkin (*cucurbita moshata*). Pumpkin fruit is widely used by moisturizers, hand body lotions, masks, soaps and shampoos [8]. Previous research conducted by Ellyana [9]. Proves that pumpkin flesh has the ability to cause it. The active ingredient that can be utilized in masks is β -carotene. Pumpkin fruit is very rich in antioxidants. Pumpkin fruit is very rich in antioxidant beta carotene which is equal to 1.12 ± 0.03 mg/100gr [10]. β -carotene will be processed by the body into vitamin A.

In a study conducted by Chrsty [11] who formulated mask preparations containing pumpkin (*churcubita moshata*). The extract used is dry extract. The process of drying through chemicals in pumpkin has many disadvantages such as requiring high costs, requiring a long time, and can reduce the added value of pumpkin, which decreases the level of antioxidants found in pumpkin. In this research, fresh mashed juice will be used. So as to produce pumpkin juice that is soft, smooth and rich in water and free of additional chemicals and does not reduce the levels of antioxidants that the skin needs to moisturize the skin.

2. Methods and equipment

2.1. Methods

2.1.1. Sample of test

The material that will be used in this study is the flesh of pumpkin fruit with a weight of 100 grams. Then smoothed using a blander to get smooth results. So as to facilitate the application of fruit to the face

2.1.2. Testing

The selected sample must match the inclusion criteria [12], namely: (a) Female sex, (b) 30-40 years old, (c) There are no other injuries or inflammation on the skin, (d) Not being treated by a doctor or treating a beautician (e) Not pregnant and (f) Female women who were willing to participate in this study after giving informed consent. The number of samples taken in this study were 10 women. The group division was determined randomly by purposive sampling. Group A consists of 5 people with treatment using

pumpkin fruit mask, group B consists of 5 people with treatment using bengkuang mask as a control [13].

2.1.3. Skin moisture measurement by using skin analyzer

Skin moisture testing was carried out 8 times, namely 2 times a week for 4 weeks [14]. This measurement is done on the face area (forehead, right cheek, left cheek, nose and chin). The application of pumpkin mask is done on the face. Before application make sure the face must be cleaned first (face wash) using soft soap provided by the researcher, then rinsed with cold water and dried with a soft towel or tissue [15]. Then prepare a pumpkin mask and bengkuang mask in the mask bowl. Preparation masks are applied to the entire face evenly using a face mask brush. The mask absorption process is carried out for 15-30 minutes until the mask is dry on the face. Pumpkin and yoke masks are cleaned using a washcloth until clean, then dried again using tissue. After that, the face of the sample was measured humidity [16] by attaching the skin analyzer to the five facial areas, namely the forehead, nose, left cheek, right cheek and chin.

2.1.4. Analysis of data

Test requirements for research analysis required normality and homogeneity tests. In order to find out the normality test, the coefficients were used. If the data is normally distributed, parametric statistics are used and if the data is not normally distributed, then an analysis is used with non-parametric statistics using U Mann Whitney.

3. Result

Data from the increase in moisture on facial skin using pumpkin masks and yam mask on 10 samples of dry facial skin, treated 8 times with a distance of 2 times a week, were obtained by experimental data. Using these experimental data can be reproduced as a result: (1) where pumpkin masks experience a significant increase in moisturizing facial skin, as evidenced by an increase in each treatment shown in Figure 1. Difference that occurs between before treatment and after treatment that strengthens that mask pumpkin can moisturize dry skin.

For control masks (yam), a lower increase in moisturizing facial skin is shown in Figure 2. In the figure, it can be seen that the control mask (yam) has decreased which occurs

in treatment 7. However, it can be said that the control mask (yam) moisturizes face skin. (2) where the results of the distribution of values can be seen in table 1.

The results of the normality test for facial care using pumpkin masks and Lhitung < L table with data of $0.181 < 0.337$ and with mask control products with data of $0.206 < 0.337$ then, $H_0 = \text{Accepted}$, it is said that the data are normally distributed. The homogeneity test is carried out using the formula of two variance similarity through the F test, the results of the homogeneity test of the two groups show $F\text{-count} < F\text{-table}$. At the significance level $\alpha = 0.05$ and $n = 5$. Where $F\text{-count}$ is 2, 47 $F\text{-tables}$ of 6.39. Thus the population of the two groups is homogeneous. The hypothesis testing of the study was carried out using the $t\text{-test}$ for similarity of degrees of confidence $\alpha = 0.05$. From the calculation results obtained by $t\text{-count}$ of 3.073 while $t\text{-table}$ of 2.31 with $dk = 8$. This concludes that $t\text{-count} > t\text{-table}$ is $3.073 > 2.31$ then H_0 is rejected. Then there is the effect of using pumpkin masks on the results of dry facial skin moisture.

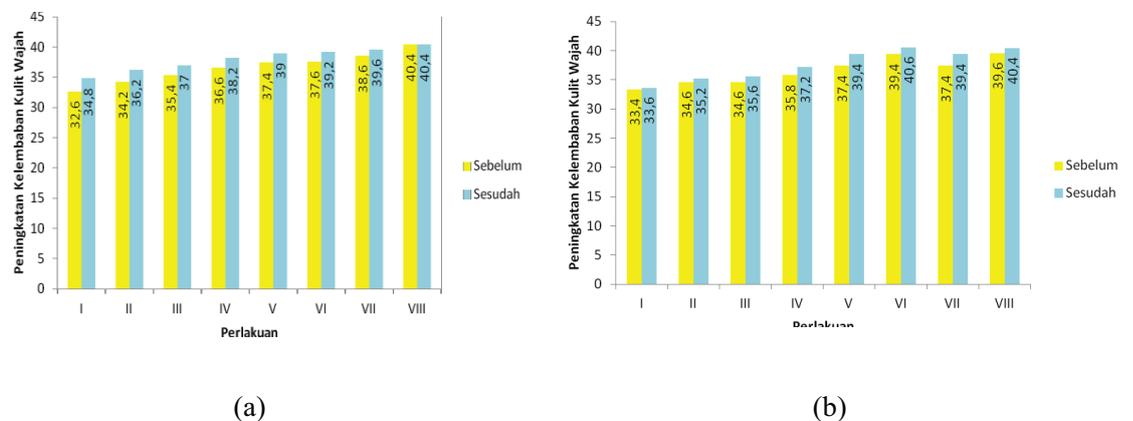


Figure 1: Results of moisture using a pumpkin mask (a) and yoke mask (b).

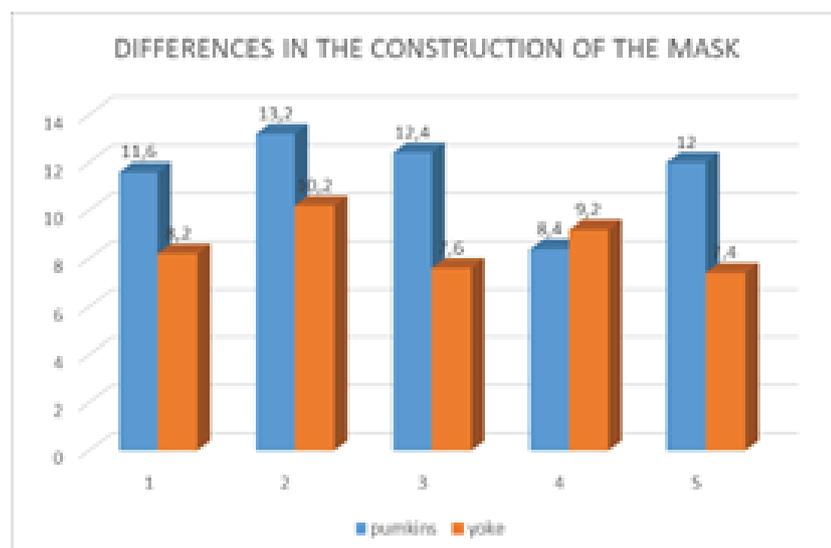


Figure 2: Differences in the construction.

TABLE 1: Description of research data.

Variable	Pumpkins Masker	Bengkuang Masker
Total Subject	5	5
Total Value	57,600	42,600
Average	11,520	8,520
Variance	3,392	1,372
Standard cross	1,392	1,171
The Highest Value	13,20	10,20
The lowest Value	8,40	7,40

4. Discussion

The sample given the pumpkin mask treatment has a difference in the increase in humidity in the treatment starting from the first to the eighth in all five samples, with the moisture content for sample 1 getting the difference (11.6), sample 2 (13.2), sample 3 (12, 4), sample 4 (8.4) and sample 5 (12.0). the data provides the highest value when compared to the treatment using a control mask (yam) which has a sample difference of 1 (8.2), sample 2 (10.2), sample 3 (7.6), sample 4 (9.2), and sample 5 (7.4). When viewed from the results of the above differences, it shows that the variation in the level of humidity in each sample 4 shown in Figure 3 has an insignificant value in terms of increasing skin moisture when compared with other samples. Where should pumpkin masks have an influence on the moisture of facial skin. But this has no effect on increased skin moisture.

5. Conclusion

Based on the results of the research conducted, it can be concluded that: The sample given the treatment of pumpkin mask was higher in increasing the moisture content of the skin, with the total difference in the increase in moisture in the treatment before and after starting from the first to eight in the five samples. From data analysis obtained by t -count of 3.073 when compared with t -table on the degree of confidence $\alpha = 0.05$ at 2.31 will be t -count $>$ t -table, therefore it can be concluded that dry facial skin care using fig masks has an influence in increasing the results of moisture on dry facial skin. Pumpkin mask is a fruit that has the effect of moisturizing facial skin.

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Conflict of Interest

The authors have no conflict of interest.

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