

THE EFFECTIVENESS OF PROVISIONING RED BELT LEAVES AND SOURSOP LEAVES ON FLOUR ALBOUS IN WOMEN OF RELIABLE AGE

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ABSTRAK EFEKTIFITAS PEMBERIAN AIR REBUSAN DAUN SIRIH MERAH DAN DAUN SIRSAK TERHADAP FLOUR ALBOUS PADA WANITA USIA SUBUR

Latar Belakang: Menurut WHO sekitar 75% wanita di dunia pasti akan mengalami keputihan paling tidak sekali seumur hidup dan sebanyak 45% wanita mengalami keputihan dua kali atau lebih. Daun sirih merah dan daun sirsak terdapat kandungan antimikroba, antijamur, antibakteri yang dapat mengurangi gejala keputihan.

Tujuan: Penelitian ini bertujuan untuk mengetahui pengaruh Daun Sirih Merah dan Daun Sirsak untuk mengurangi keputihan pada wanita usia subur di Klinik Lestari Asih 2021

Metode: Penelitian Quasi Eksperimen dengan populasi sebanyak 30 orang wanita usia subur yang mengalami keputihan. Kelompok eksperimen daun sirih merah sebanyak 15 responden dan Kelompok daun sirsak sebanyak 15 responden. Teknik pengambilan sampel menggunakan purposive sampling. Instrumen penelitian penelitian ini dilakukan dengan menggunakan rekam medik dan hasil observasi pretest dan posttest. Data dianalisis menggunakan Paired sample T test untuk mengetahui pengaruh antara kelompok intervensi daun sirih merah dan kelompok intervensi daun sirsak. Analisis independent untuk mengetahui perbedaan efektifitas antara daun sirih merah dan daun sirsak terhadap flour albus pada Wanita usia subur.

Hasil: Menunjukkan bahwa air rebusan daun sirih merah berpengaruh dalam menurunkan keputihan dengan $P < 0,000$. Dan air rebusan daun sirsak berpengaruh dalam menurunkan keputihan dengan hasil nilai $P < 0,000$. Hasil analisis independent sebelum dilakukan intervensi antara daun sirih merah dan daun sirsak didapatkan nilai value $p = 0,216$ dan setelah dilakukan intervensi dengan diberikan air rebusan daun sirih merah dan daun sirsak nilai value $P = 0,668$.

Kesimpulan: ada hubungan yang signifikan antara daun sirih merah dan daun sirsak terhadap flour albus pada Wanita usia subur. Daun sirih merah dan daun sirsak memiliki keefektifan yang sama dalam mengurangi keluhan flour albus pada Wanita usia subur.

Saran: Diharapkan tenaga kesehatan mengadakan penyuluhan tentang keputihan dalam memanfaatkan terapi non farmakologi daun sirih merah dan daun sirsak

Kata kunci: Daun sirih merah, daun sirsak, keputihan.

ABSTRACT

Background: According to WHO, about 75% of women in the world will experience vaginal discharge at least once in their lifetime and as many as 45% of women experience vaginal discharge twice or more. Red betel leaf and soursop leaf contain antimicrobial, antifungal, antibacterial properties that can reduce the symptoms of vaginal discharge

Purpose : This study aims to determine the effect of Red Betel Leaf and Soursop Leaf to reduce vaginal discharge in women of childbearing age at the Lestari Asih Clinic 2021.

Method: Quasi Experimental Research with a population of 30 women of childbearing age who experience vaginal discharge. The red betel leaf experimental group was 15 respondents and the soursop leaf group was 15 respondents. The sampling technique used was purposive sampling. The research instrument of this research was carried out using medical records and the results of pre-test and post-test observations. Data were analyzed using Paired sample T test to determine the effect between the intervention group of red betel leaf and the intervention group of soursop leaves. Independent analysis to determine the difference in effectiveness between red betel leaf and soursop leaf on flour albus in women of childbearing age.

Results: It shows that the boiled water of red betel leaf has an effect on reducing vaginal discharge with $P < 0.000$. And soursop leaf boiled water has an effect on reducing vaginal discharge with a P value of 0.000 . The results of independent analysis before the intervention between red betel leaf and soursop leaf obtained $P < 0.216$ and after the intervention was given boiled water of red betel leaf and soursop leaf $P < 0.668$.

Conclusion: there is a significant relationship between red betel leaf and soursop leaf on flour albus in women of childbearing age. Red betel leaf and soursop leaf have the same effectiveness in reducing flour albus complaints in women of childbearing age and.

Suggestion: It is hoped that health workers will provide counseling about vaginal discharge in utilizing non-pharmacological therapy of red betel leaf and soursop leaf

Keywords: Red betel leaf, soursop leaf, vaginal discharge.

INTRODUCTION

Based on the Republic of Indonesia Law no. 36 of 2009 article 1 paragraph 9 concerning Health, what is meant by traditional medicine is an ingredient or ingredient in the form of plant material, animal material, mineral material, preparation of extracts (galenic) or a mixture of these materials which have been used for generations for treatment and can be applied according to the norms prevailing in society. One of the traditional medicines that can be used to cure vaginal discharge in women of childbearing age is by consuming soursop leaves and red betel leaf.

Stated that the results showed that before the administration of soursop leaves, 30 women experienced pathological vaginal discharge. After giving soursop leaves, 26 respondents (86.7%) that soursop leaf (*Annona muricata*. L) is effective as a treatment for vaginal discharge in women of childbearing age at Batua Health Center in 2019.

Research results by Reza, et al (2020) Effect of Red Betel Leaf Boiled Water on Decreased vaginal discharge in Women of Childbearing Age at the Faculty of Health Sciences, Galuh University nice. Stating that there is an effect of red betel leaf boiled water on decreasing vaginal discharge in women of childbearing age at the Faculty of Health Sciences, Galuh Ciamis University, as indicated by a p value of 0.00. Women of childbearing age are recommended to use boiled water of betel leaf when experiencing vaginal discharge. The incidence of vaginal discharge at the Lestari Asih Clinic in 2019 was 115 people who experienced pathological flour albus as many as 65 people (56.52%). And in 2020 there was an increase in the incidence of flour albus by 135 with the incidence of pathological flour albus by 85 people (62.96%). In 2021, January - April, the incidence of float albus was 35 with pathological flour albus 20 people (57.14%) and 5 of them had candidoma acuminata, the cause of which was HPV (human papillomavirus).

Based on the preliminary study above, the researcher is interested in conducting research on "comparison of the effectiveness of giving soursop

leaf boiled water and red betel leaf boiled water on flour albus in women of childbearing age at the Lestari Asih clinic". Considering that there are still many women of childbearing age who experience vaginal discharge and still do not understand how to treat or prevent vaginal discharge and how to use traditional medicine. So the researchers are interested in conducting research on the treatment of vaginal discharge (flour Albus) for non-pharmacological treatment, especially the administration of soursop leaves and red betel leaf for vaginal discharge.

RESEARCH METHODOLOGY

The method that will be used in the research is the experimental method. This study uses a quasi-experimental research design with a two-group pre-test and post-test design described as follows (Riwidikdo, 2013). The sample in this study amounted to 30 respondents consisting of 15 groups of red betel leaves and 15 groups of soursop leaves. The sampling technique used was purposive sampling. This research was conducted on 16-23 July 2021 at the Lestari Asih Clinic. The instrument of this research consisted of medical records and pretest posttest observation sheets. Data analysis used paired t-test to determine the effect before and after giving boiled water of red betel leaf and soursop leaf. Data analysis of independent sample t-test to determine the difference in flour albus before being given red betel leaf and soursop leaf, and to determine the condition of flour albus after being given boiled water of red betel leaf and soursop leaf. This research already has a letter of ethics.

RESEARCH RESULTS

Based on the results of research conducted at the Lestari Asih Clinic, the following results were obtained

Univariate Analysis

Average Pretest and Posttest Values in the Red Betel Leaf and Soursop Leaf Group

Table 1.

Average Pretest and Posttest Values in the Red Betel Leaf and Soursop Leaf Group Against Leucorrhoea

Group		N	Mean±SD	Minimum	Maxsimun
Red betel leaf	Pre-test	15	30.60±2,261	27	36
	Post-test	15	15,07±2,052	12	19
Soursop leaf	Pre-test	15	31.60±2,063	28	36
	Post-test	15	15,40±2,165	13	20

Based on table 4.1 the red betel leaf group, before the treatment the average value obtained was 30.60 and after the intervention was given the average value was 15.07%.

The soursop leaf group, before the treatment, the average value obtained ie 31.60 and after the intervention was given the average value was 15.40.

Bivariate Analysis

Results of Data Normality Test

Based on table 2 shows the results of the normality test of data using the *Shapiro Wilk* In the red betel leaf treatment group, the Pretest results obtained a p 0.394 and the Posttest results obtained with a p 0.205. While the values in the soursop leaf

group were the results of the normality test of the data using the *Shapiro*, the results of the Pretest were p 0.415 and the Post-tests obtained with p 0.104.

So it can be concluded that the two groups of red betel leaf and soursop leaf were normally distributed.

Hypothesis testing in this study was carried out based on the results of the normality test of the data obtained by normally distributed data, then the test was carried out using parametric statistics (*Paired-Sample t test* to test for differences in groups, and *Independent-Sample t test* to test differences between groups).

Table 2.
Data normality test red betel leaf and soursop leaf

Group		Shapiro-Wilk		
		Statistic	Df	Sig.
Red betel Leaf	Pre-test	,941	15	,394
	Post-test	,922	15	,205
Soursop Leaf	Pre-test	,943	15	,415
	Post-test	,902	15	,104

Flour Albous before and after giving boiled water for red betel leaf and soursop leaf

Based on table 3 shows the average value of flour albus before being given red betel leaf treatment is 30.60 and after being given an intervention on red betel leaf, the average value was 15.07. The results of the statistical test on the red betel leaf group showed a *P Value* of 0.000 which means (<0.05) then H_0 is rejected and H_a is accepted. Which means that there is an effect of giving boiled water of red betel leaf on flour albus in women of childbearing age.

The soursop betel leaf group shows an average value of flour albus before being given soursop leaf treatment of 31.60 and after being given an intervention on soursop leaves, the average value of soursop leaves is obtained 15.40.

The results of the statistical test on the red betel leaf group showed a *P Value* of 0.000 which means (<0.05) then H_0 is rejected and H_a is accepted. Which means that there is an effect of giving boiled water of red betel leaf to flour albus in women of childbearing age.

Table 3.
Differences in flour albus before and after giving boiled water for red betel leaves and soursop leaves

Flour Albous	N	Prettest			Posttest			P
		M	SD	Std.ErrorMean	M	SD	Std.ErrorMean	
Redbetel Leaf	15	30,60	2,261	,584	15,07	2,052	,530	0,000
Soursop leaf	15	31,60	2,063	,533	15,40	2,165	,559	0,000

Differences before and after groups of red betel leaf and soursop leaf

Table 4.
Comparison before and after giving boiled water of red betel leaf and soursop leaf to flour albus

Flour Albus	N	Red Betel Leaf			Soursop Leaf			P
		M	SD	Std.ErrorMean	M	SD	Std.ErrorMean	
Pretest	15	30,60	2,261	,584	31,60	2,063	533	,216
Posttest	15	15,07	2,052	,530	15,40	2,165	,559	,668

Based on table 4 before being given treatment with red betel leaf and soursop leaf, the *p value* of 0.216 was obtained, where the statistical test criteria for hypothesis analysis were > 0.05 , then H_0 was accepted and H_a was rejected. So it can be concluded that there is no significant difference before being given treatment between red betel leaf and soursop leaf on the treatment of flour albus.

In the results of the test between the two groups, after being given the intervention of red betel leaf and soursop leaf, it was found that *p value* of 0.668 where the statistical test criteria for hypothesis analysis > 0.05 then H_0 was accepted and H_a was rejected. So it can be concluded that there is no significant difference after the intervention was given between red betel leaf and soursop leaf on the treatment of flour albus. So the two treatments between red betel leaf and soursop leaf were effective in reducing flour albus.

DISCUSSION

Univariate analysis

The average value of pretest and posttest in the red betel leaf and soursop leaf group the average value of the pretest and posttest in the red betel leaf and soursop leaf group

Researcher Hidayatik T (2020) the effectiveness of giving soursop leaf extract (*Annona muricata* linn) on the incidence of pathological vaginal discharge in women of childbearing age (2020), showed that the results of the study using the Mann Whitney statistical test obtained a value of value = 0.000 which means it is smaller than 0.05 so that there is an effectiveness of giving soursop leaf extract (*Annona muricata* Linn) on the incidence of pathological vaginal discharge in women of childbearing age at the Pajarakan Health Center, Pajarakan District, Probolinggo Regency.

Researcher Ernawati O (2019). The effect of boiled water on red betel leaf (*Piper crocatum*) on decreasing fluor albus symptoms in women of childbearing age, shows that the results showed that 16 respondents (94.1%) experienced a decrease in fluor albus symptoms and 1 respondent (5.9%) did not experience a decrease in fluor albus symptoms. symptoms of fluor albus. The results of the statistical

test p -value = 0.000 where p -value < 0.05 means H_0 is rejected and H_1 is accepted. From the results of this study, it can be concluded that women of childbearing age who experience fluoride can apply red betel leaf boiled water as a non-pharmacological drug. There is an effect of boiled water on red betel leaf on decreasing fluor albus symptoms in women of childbearing age

According to the researcher's assumption, the results of the distribution of vaginal discharge frequency pretest red betel leaf and pretest posttest soursop leaves show that there is a very effective change when consuming red betel leaf and soursop leaf on flour albus in women of childbearing age, where the incidence of pathological vaginal discharge becomes physiological vaginal discharge with intervention for 7 consecutive days.

Bivariate Analysis

The difference before and after being given red betel leaf to flour albus in women of childbearing age

Researcher Ernawati O (2019). The effect of boiled water on red betel leaf (*Piper crocatum*) on decreasing fluor albus symptoms in women of childbearing age, shows that the results showed that 16 respondents (94.1%) experienced a decrease in fluor albus symptoms and 1 respondent (5.9%) did not experience a decrease in fluor albus symptoms. symptoms of fluor albus. The results of the statistical test p -value = 0.000 where p -value < 0.05 means that H_0 is rejected and H_1 is accepted. From the results of this study, it can be concluded that women of childbearing age who experience fluoride can apply red betel leaf boiled water as a non-pharmacological drug. There is an effect of red betel leaf boiled water on decreasing fluor albus symptoms in women of childbearing age.

According to researchers, using red betel leaf boiled water on women of childbearing age with flour albus on day 3, experienced a very significant change where the amount of vaginal discharge before being given The intervention treatment was very much, and after being given treatment with soursop leaves the amount of vaginal discharge has decreased or is getting less and the yellowish vaginal discharge becomes white and the vaginal discharge

has no odor. This happens because the red betel leaf contains essential oils as anti-bacterial and has antimicrobial benefits. The content of tannins in betel leaf also reduces the amount of fluid secretion in red betel leaf. (Ismawan, 2016).

The difference before and after being given soursop leaves to flour albus in women of childbearing age

Soursop leaves contain chemical compounds in the form of alkaloids, tannins, and several other compounds including annonaceous acetogenins. Annonaceous acetogenins are compounds that have cytotoxic potential. Cytotoxic compounds are compounds that can be toxic to inhibit and stop the growth of cancer cells. The content of compounds in soursop leaves include steroids/terpenoids, flavonoids, coumarins, alkaloids, and tannins. Flavonoid compounds function as antioxidants for cancer, antimicrobial, antiviral, photosynthetic regulators, and growth regulators (Puspitasari, 2016). Soursop leaves contain anti-bacterial properties and contain steroids, alkaloids, flavonoids, tannins which can inhibit the growth of *E. Coli*, *Proteus vulgaris*, *Salmonella tyhimurium*, *Klebsiella*, *Candida albicans* bacteria (Solomon., et al, 2014)

According to Suwanti's research (2016) suggests that soursop leaves can be used to treat vaginal discharge in women because they contain antiseptic substances that can kill germs, namely phenol. Phenol is often used as an antiseptic and antibacterial (Puspitasari, 2016).

Hidayatik, T., Hanifah, I., & Hastiyani lisa. (2020). The Effectiveness of Giving Soursop Leaf Extract (*Annona Muricata* Linn) Against Pathological Leucorrhoea in Women of Childbearing Age. The results obtained by using the Mann Whitney statistical test obtained a value of value = 0.000 which means it is smaller than 0.05 so that there is an effectiveness of giving soursop leaf extract (*Annona muricata* Linn) against the incidence of pathological vaginal discharge in women of childbearing age.

According to the researcher's assumption, consuming soursop leaves for vaginal discharge changed on the 3rd day, and this was proven when before being given treatment the soursop leaf in the vagina was very itchy and after being given intervention treatment the soursop leaf in the vagina was no longer itchy and the color of the vaginal discharge was clear. yellow to white. And on the 2nd day of discharge from the vagina, began to decrease. Therefore, soursop leaves are safe for consumption because they contain anti-bacterial, antiviral, antimicrobial, and anti-parasitic compounds that work actively if taken in the right dosage and

presentation method. So, soursop leaves can be used as an alternative ingredient for treatment for vaginal discharge for women of childbearing age.

The difference before and after being given red betel leaf and soursop leaf to flour albus in women of childbearing age

Research conducted by Ernawati, O., Prasetyaningati, D., & Rahmawati, A. (2019). Effect of boiled water on red betel leaf (*Piper crocatum*) on decreasing flour albus symptoms in women of childbearing age. Conducting research on the effect of giving boiled water of red betel leaf on the incidence of vaginal discharge, the results obtained that giving red betel leaf is effective in reducing the incidence of vaginal discharge. The results of the analysis obtained *P* value (0.00). So that it shows a difference before and after being given soursop leaves that experience vaginal discharge.

Research conducted by Ekasari, Y., Tri, EW, & Sukarni. (2017). The Effectiveness of Decoction of Soursop Leaves (*Annona Muricata* Linn) in Wus with Pathological Problems with Leucorrhoea at Sukadadi Public Health Center of Gedong Tataan Regency. Conducting research on the effect of giving soursop leaves to the incidence of vaginal discharge, it was found that giving soursop leaves was effective in reducing the incidence of vaginal discharge. In the results carried out, the results obtained *p* value (0.001). So that it shows a difference before and after being given soursop leaves that experience vaginal discharge.

According to the researcher's assumptions, soursop leaves and red betel leaf have the same effectiveness in reducing flour albus in women of childbearing age. The use of red betel leaf and soursop leaf is adjusted to the needs and symptoms that are complained of. The treatment of red betel leaf resulted in a faster decrease in the amount of vaginal secretions and no odor than the change in color from yellowish white to milky white. Meanwhile, the intervention treatment on soursop leaves showed a faster decrease in the amount of vaginal discharge, as well as a yellowish discoloration starting to become slightly milky, and the vaginal area did not itch more than the change in odor in the vaginal area. The use of boiled water of soursop leaves and red betel leaf should be consumed regularly for 5-7 days of use because the content contained in red betel leaf and soursop leaf as antimicrobial, antiviral, antibacterial, and anti-parasitic.

CONCLUSION

There is an effect of giving boiled water of red betel leaf to flour albus with a *P* value of 0.000 and

soursop leaves have a *P value* of 0.000 which means that there is a significant effect on flour albus in WUS. The results of the independent test showed the results before the intervention of red betel leaf and soursop leaf with a *p value* 0.216 and after the intervention was given to red betel leaf and soursop leaf *p value* 0.668. This means that red betel leaf and soursop leaf have the same effectiveness in reducing flour albus in women of childbearing age.

SUGGESTION

For further research, it is expected to do a comparison between pharmacological and non-pharmacological therapy on flour albus in women of childbearing age.

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