

RESEARCH ARTICLE

The effect of Stewed *Sungkai* Leaves (*Peronema canescens* Jack) on the decrease in Inflammatory Symptoms of Covid-19 patients

Ridhyalla Afnuhazi¹, Febria Syafyu Sari¹, Hendrawati¹, Desi Sarli², Ruma Poddar^{3*}

¹Nabila Nursing Academy, Jalan Dr. H. Kamarullah No.1, Bukit Surungan, Kec. Padang Panjang Bar., Kota Padang Panjang, Sumatera Barat 27118, Indonesia.

²STIKes Alifah Padang, Jl. Khatib Sulaiman Kel No.52B, Ulak Karang Sel., Kec. Padang Utara, Kota Padang, Sumatera Barat 25134, Indonesia.

³Lincoln University, Wisma Lincoln, No, 12-18, Jalan SS 6/12, 47301 Petaling Jaya, Selangor D. E., Malaysia.

*Corresponding Author E-mail: ruma@lincoln.edu.my

ABSTRACT:

Objective: *Sungkai* extract contains flavonoids. It has an analgesic, anti-inflammatory, and antipyretic function. The research objective was to determine the effect of stewed *sungkai* leaves on the decrease in inflammatory symptoms of COVID-19 patients. **Method:** The research design used a quasi-experimental one-group pre-post-test. The computerized Wilcoxon test processed the data obtained, and the Cronbach alfa test was used to ensure reliability. Sampling was done by using an accidental sampling technique with the following criteria: confirmed positive for COVID-19; agreed with informed consent; did not use other traditional medicines; and a total of samples from 14 people that were carried out at the Reksodiwiryo Padang Hospital. The patients were given stewed *sungkai* leaves by taking five pieces of young *sungkai* leaves boiled in 3 cups of water to make 1 cup of drink to be consumed twice a day 5, 12 patients had no inflammatory reaction. **Results:** The results showed that giving stewed/ boiled *sungkai* leaves decreased inflammatory symptoms of COVID-19 patients with a p-value (<0.05). The result of the normality test is 0.00. **Conclusion:** Thus, it can be concluded that boiled *sungkai* leaves have the potential as an anti-infection that can increase leukocytes.

KEYWORDS: COVID 19, leaves, leucocytes, stew, *sungkai*.

INTRODUCTION:

The cause of Covid-19 is Sars-Cov 2, a microscopic virus that enters the respiratory tract. It can cause damage to the lung alveoli, so patients may experience respiratory failure, which can lead to death. Even though many virologists claim that Covid-19 is a viral infection that can heal itself (self-limiting disease), but spread of this virus is swift, widespread, and mass¹. *Sungkai*'s young leafs (*Peronema canescens*) use as a herbal medicine for increase the amount of leukocytes.²

Until now, there is no medicine or anti-virus for patients who have been confirmed positive for Covid - 19. Many people use traditional medicine to prevent and cure Covid-19, one of which is *sungkai* leaves (*Peronema canescens* Jack).

According to the research conducted by Yani AP et al., giving *sungkai* leaf extract treatment to mice could increase the white blood cells (leukocytes) of mice. *Sungkai* extract contains several active substances: peronemin, sitosterol, isopropanol, phytol, and a flavonoid. So there is a possibility that these elements help to increase the number of leukocytes³. Traditional Chinese medicine uses *sungkai* leaf to treat fever and malaria. Alkaloids, flavonoids, terpenoids-steroids, and tannins are all found in *Sungkai*⁴.

Moreover, the results of research conducted by Badiaraja, giving *P. canescens* young leaf extract and positive control (Paracetamol) to mice, showed that it significantly reduced the body temperature of mice compared to negative controls (water). The analysis results showed that giving *P. canescens* young leaf extract had a significant effect on decreasing body temperature of *M. musculus* at 30 minutes after treatment application⁵.

This research aimed to determine the immunostimulant effect of sungkai leaf extract on Covid-19 patients in Army Hospital (RST) Dr. Reksodiwiryo Padang.

Method:

This type of research is Quasi-Experimental research using the "Quasi-Experimental One-Group Pre-Post Test" approach with the intervention of giving boiled *sungkai* leaves (*Peronema canescens* Jack).

This study's population were all confirmed positive patients for Covid-19, who were treated by the Army Hospital (RST) Dr. Reksodiwiryo Padang. Sampling was done using accidental sampling technique with the following criteria: confirmed positive for Covid-19, agreed with informed consent, did not use other traditional medicines, a total sample of 14 people.

The data collection tool used was an observation sheet to record the results of giving stewed *sungkai* leaves. The validity and reliability tests were carried out by using the cronbach alpha test.

The technique of giving boiled *sungkai* leaves is carried out for one week by taking five pieces of young *sungkai* leaves, boiling them with 3 cups of water, making 1 cup of to be consumed twice a day, in the morning and evening. The data obtained were processed by the computerized Wilcoxon test (SPSS).

The consumption of the drugs from the hospital is not stopped, while the sungkai leaves is also consumed at the same time to fasten the healing process.

RESULT:

Table 1 shows that all respondents, before being given the decoction of *sungkai* leaves, were confirmed positive for Covid-19, with the total of 14 people. On day 5, as many 12 people were healed with no fever, flu, sore throat.

Table 1 Distribution of Covid-19 Confirmed Clients Before and After Intervention

Variable	Recoverd	Un recoverd	P value	N
Before	0	14	0.003	14
After	12	2		

The data is not normally distributed as evidenced by a p value of 0.000 <0.05 so that the non-parametric is wilcoxon test is used, shows that the value of $\alpha = 0.003 < 0.05$ means that there is an effect of giving boiled *sungkai* leaves (*Penorema canescens* Jack) in healing the patients who were confirmed positive for Covid-19.

Table 2 Tests of Normality

Variable	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Before	0.478	14	0.000	0.516	14	0.000
After	0.510	14	0.000	0.428	14	0.000

DISCUSSION:

The results of this study indicates that there is an effect on the decoction of *sungkai* leaves on the decrease in inflammatory symptoms of the patients who were confirmed positive-19 which was characterized by no fever, flu and sore throat. As seen among 14 patients who were confirmed positive, there were 12(85.7%) patients experienced recovery, with a p-value (<0.05).

Research conducted by Yani AP, et al. By administering extracts of young leaves of *sungkai* (*P.canescens*) with a dose of 0.5625mg/Kg bb showed that it can increase the number of leukocytes by 36%. From the results of research, it can be infered that the administration of young *sungkai* (*P. canescens*) can improve health (immunity). *Sungkai* extract contains several active substances, namely, peronemin, sitosterol, isopropanol, phytol, flafanoid so there is a possibility that these elements work well in increasing the number of leukocytes².

According to Ningsih et al. (2013), the results of the isolation of n-hexane from *P. canescens* leaves obtained one compound, namely isolate B1, based on the chemical reagent data for isolate B1, based on the chemical reagent data for isolate B1, a positive group of terpenoid compounds and it has anti-bacterial activity. Young leaves of *sungkai* also contain flavonoids, which play a major role as the red, blue and purple pigments, found in most higher plants. Flavonoids have an analgesic, anti-inflammatory antipyretic effect⁶.

The patient with covid-19 whose immune is low, divined with less leukosit. From the previous research, *sungkai* leaves contain flavonoids that play a role in anti-inflammatory, and antipyretic, which can increase the number of white blood cells or leukocytes. Sungkai (*Peronema canescens* Jack) is increasingly being used to treat covid-19 by various indigenous tribes⁷. Another research showed an effect of giving sungkai leaf stew on the decrease in inflammatory symptoms of COVID-19 clients⁸. In this study, 5 young leaves were boiled with 3 cups of water (600ml) to 1 cup (200ml) and consumed 2 times a day (morning afternoon). The results were on

day 5 in which the confirmed positive patients were declared cured with no more signs of inflammation such as fever, flu and sore throat. However, there were 2 patients who still experience signs of inflammation. After observations and interviews with patients, the patient said that since he was tested positive for Covid-19 he became overthinking and could not sleep. As it is known that the decrease psychological impact could also lower the immune system.

CONCLUSIONS:

There is an effect of *sungkai* leaves decoction on the recovery anti-inflammation of the patients who were confirmed positive for COVID-19 because the decoction of *sungkai* leaves is offered as an anti-infection that can increase leukocytes.

ACKNOWLEDGEMENTS:

Thanks to Army Hospital (RST) Dr. Reksodiwiryo Padang which have facilitated the research and to respondents and all parties who have supported this research.

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