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EFFECT OF PAPAYA LEAF STEW AGAINST PREGNANT WITH MALARIA

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ABSTRACT

Background: Malaria is a parasitic infection caused by Plasmodium in the blood. Malaria is endemic in more than 100 countries in Africa, Asia, Oceania and South, and Central America as well as in several Caribbean islands.

Objective general: To determine the effect of Papaya Leaf Against Malaria in Pregnant Women with Wari Polindes Tobelo district. North Tobelo district. North Halmahera 2019.

Research benefits: This can help provide information about factors related to Malaria so that it can be the basis of the prevention of Malaria in Pregnancy.

Types of research: experiment with pretest and post-test examples were divided into two groups group. The first group was given treatment and a second group was given no treatment. The first group is called the experimental please second group is called a control group.

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Results: The results obtained in this case after being given a decoction of the leaves of papaya, no influence eating Papaya Leaf decoction to cure malaria in pregnant women.

Conclusions and suggestions: There Papaya Leaf Stew taking effect on the healing of malaria in pregnant women, and is expected to midwives to provide counseling to pregnant women about the benefits of Papaya Leaf Stew can be made herbal medicine to cure malaria.

Preliminary

Background

Malaria is a parasitic infection caused by Plasmodium in the blood. Malaria is endemic in more than 100 countries in Africa, Asia, Oceania and South, and Central America as well as in several Caribbean islands. Malaria is also a public health problem in Indonesia.

The latest WHO data in December 2015, there were 214 million cases of malaria and cause the death of 438,000 people. Globally, especially in Sub-Saharan Africa is still donate malaria morbidity is quite high, and 88% - 90% lead to death. Efforts to control and reduction of malaria cases into international commitments in the Millennium Development goals / MDGs. One of the targets Development Millennium Development Goals / MDGs were endorsed by the World Health Organization / WHO is to halt the spread and reduce the incidence of the incident malaria.³

The incidence of malaria in Indonesia is still dominated in eastern Indonesia, which is visible from malaria morbidity rate (Annual Parasite Incidence /

API) per 1,000 population with the highest province of Papua (31.93), West Papua (31.29), East Nusa Tenggara (7.04), Maluku (5.81), and North Maluku (2.77). According to WHO (2017), reported many cases of malaria in Indonesia are still many caused by Plasmodium falciparum (55%), Plasmodium vivax (44%) and most were transmitted by the Anopheles mosquito species such as A. sundaicus, A. balabacensis, A. maculatus, A. farauti, and A. Subpictus⁴.

Based on data from the Health Research (Risksedas) in 2013, the incidence of malaria infection in Indonesia which is about 1.9%. There was a decrease compared to 2007 of around 2.9%, but in 2013 cases of malaria infection occurred a drastic increase in West Papua with a prevalence of 6.0%. In Indonesia, the incidence rate of malaria infection is still high, especially in eastern Indonesia such as Papua, East Nusa Tenggara, Maluku, North Maluku, and North Sulawesi.⁵

Malaria infections can affect all people regardless of age, gender and pregnant women are no exception. This is because of the changes in.^{3,4} maternal malaria infection in pregnancy is very harmful because it can increase the incidence of morbidity and mortality of both mother and fetus. The mother can cause anemia, hypoglycemia, renal function impairment, and even death. In the fetus can cause low birth weight, miscarriage, premature birth, and death fetus.⁵

Based on the profile of North Halmahera District Health Office pregnant women positive number (+) Malaria in 2016 as many as 6, 2017 as many as 2, 2018 by 2 people.⁸

Number of pregnant women At Puseksmas Pitu in 2018 as many as 1,641, 2019 as many as 911 number Overall 2,552 pregnant women. From the

data above authors wish to examine the Effect of papaya leaves boiled water to pregnant women with malaria.

Formulation of the problem

How to Influence Papaya Leaf Against Malaria in Pregnant Women with Pitu health center. Tobelo district. North Tobelo district. North Halmahera 2019.

Research purposes

Interest general

To determine the effect of water decoction of Papaya Leaf Against Malaria in Pregnant Women with Pitu health center. Tobelo district. North Tobelo district. North Halmahera 2019.

Special purpose

- a) To identify the blood pressure before giving Papaya Leaf Water decoction.
- b) To identify the blood pressure after giving Papaya Leaf Water decoction.
- c) To identify Papaya Leaf Effect of Water Decoction Against Pregnant with Malaria.

Benefits of Research

Theoretical benefits

- a) for the Community
Research can help provide information about factors related to Malaria so that it can be the basis of the prevention of Malaria in Pregnancy.
- b) For Health Agencies
Research can be used as a basis for the promotion of Health in tackling Malaria in Pregnancy.

c) for Institutions

This study is expected to provide benefits and add reading materials and references for students to further research development.

Practical benefits

a) for researchers

Adding Knowledge Science in Pharmacology and can apply science can be.

b) For researchers Other

The results of this research can be used as a reference and the underlying data in the next research that relates to the occurrence of Malaria in Pregnancy.

Literature review

Basic Concepts of Pregnancy

gestation

According to the International Federation of Obstetrics Ginekologi, pregnancy is defined as fertilization or the union of sperm and ovum and continued with nidation or implantation. When calculated from the fertility phase until the birth of the baby, normal pregnancy will take place within 40 weeks or 10 lunar months or 9 months according to the international calendar. Gestation lasts three trimesters, trimesters one took place in 13 weeks, 14 weeks of the second trimester (weeks 14 to 27th), and third trimesters of 13 weeks (28 weeks until ke40.9

Signs - Signs of Pregnancy

1. Alleged Pregnancy Signs

a) Amenorrhea (cessation of menstruation)

Conception and cause the formation of nidation de Graaf follicles and ovulation so that menstruation does

not occur. The duration of amenorrhea can be informed to ensure the first day of the last menstrual period (LMP) and is used to estimate the age of pregnancy and childbirth interpretation. But amenorrhea also is caused by certain chronic disorders, pituitary tumors, changes, and environmental factors, malnutrition, and usually emotional disturbances such as fear of pregnancy.

b) Nausea (nausea) and vomiting (emesis)

Estrogen and progesterone influence occurred spending excessive stomach acid and cause nausea and vomiting that occurs mainly in the morning called sickness morning. Within certain limits it is physiological, but if too often can cause health problems called hyperemesis gravidarum.

c) Cravings (want a particular meal)

Pregnant women often want certain foods, such desires are called cravings. Cravings often occur during the first month of pregnancy and disappear with her pregnancy.

d) Syncope (fainting)

Kedaerah circulatory disturbance chief (central) ischemia central nervous system and cause syncope or fainting. It is often the case, especially if it is in a crowded place, it will usually disappear after 16 weeks.

e) Fatigue

Often occur in the first trimester, as a result of a decrease in basal metabolic rate (BMR-basal metabolic rate) in pregnancy which increases as pregnancy progresses due to the metabolic activity of the products of conception.

f) breast Tense

Estrogens increase the development of the breast ductal system, while progesterone stimulates the growth of breast alveolar system. Together somatomammotropins, hormone - these hormones cause breast enlargement, causing feelings of tension and pain during the first two months of pregnancy, the widening of the nipple, as well as the expenditure of colostrum.

g) frequent micturition

The insistence of the uterus for cause bladder feels full quickly and frequent micturition. Frequent micturition frequency, occur in the first quarter due to pressure birthness urinary uterus. In the second quarter of this complaint generally will be reduced due to the enlarged uterus out of the pelvis. At the end of the quarter, the symptoms may occur as the fetus begins to enter the cavity pelvis and pushed back the bladder.

h) Constipation or obstipation

The effect of progesterone may inhibit intestinal peristalsis (decreased muscle tone) so that the difficulty to defecate.

i) skin pigmentation

Pigmentation occurs in the pregnancy of 12 weeks. This occurs due to the influence of corticosteroid hormones that stimulate melanophore placenta and skin.

This pigmentation covering the place - the following places;

- 1). Around the cheeks: chloasma gravidarum (blackening on the forehead, nose, cheeks, and neck)
- 2). Around the neck looks more black
- 3). The abdominal wall: Striae divide / gravidarum (contained in a primigravida, the color was blue), Striae nigra, linea alba becomes darker (linea grisae / nigra).
- 4). Sick
- 5). ar bust: hyperpigmentation of the mammary areola, forming a secondary areola. Areola pigmentation is different for every woman, there are pink on white women, brown women brown leather, and black on black women. In addition, prominent Montgomery glands and blood vessels around breast manifest.
- 6). Around the buttocks and upper thighs: their Striae due to enlargement of the section.

j) epulis

Hypertrophic papillae gingivae/gums, often occur in the first quarter.

k) varicose veins

Effect of estrogen and progesterone causes dilation of blood vessels, especially for women who have the talent. Varicose veins can occur around the external genitalia, feet and legs, and breasts. Sightings of blood vessels may disappear after delivery.

2. Possible Signs (Probability sign)

It is possible to significantly change - physiological changes that can be known by the examiner to perform a physical examination to pregnant women.

It consists of a possible sign of things - the following:

a) distention

Caused by enlargement of the uterus. This occurred in the fourth month of pregnancy.

b) Hegar's sign

Hegar's sign is softening and can be suppressed isthmus uteri.

c) Signs Goodell

Is the softening of the cervix. In women who are not pregnant cervix as the tip of the nose, while the pregnant woman's lips are softened.

d) Chadwick's sign

Become purplish discoloration of the vulva and vaginal mucosa including the portion and cervix.

e) Signs piscaseck

An enlarged uterus is not symmetric. This occurs because the ovum to implant in the area close to the cornea so that the area develops first.

- f) Braxton hicks contractions
A stretch of cells - muscle cells of the uterus, due to increased actomyosin in the muscle of the uterus. These contractions, not bermitrik, sporadic, not pain, usually arising in pregnancy eight weeks, but the new can be observed daeri abdominal examination in the third trimester. This contraction will continue to increase the frequency, duration, and strength until approaching childbirth.

- g) palpable allotment
The sudden knock on the uterus causes the fetus to move in the amniotic fluid that can be perceived by the examiner's hand.

h) h)
examination
of biological
tests
pregnancy
(protest)
positive

This examination is to detect the presence of human chorionic gonadotropin (hCG) is produced by sinsiotropblastik cells during pregnancy.

- 3. Definitely sign (positive sign)
A sure sign is a sign indicating the direct presence of the fetus, which can be viewed directly by the examiner. A sure

sign of pregnancy consists of things - the following points.

- a) Movement of the fetus in the womb
Fetal movement should be clearly palpable by the examiner. Fetal movement can only be felt at around 20 weeks gestation.

- b) Fetal heart rate
It can be heard at 12 weeks using fetal electrocardiograph tool (eg dopler). Laennec with a stethoscope, a new fetal heart rate can be heard on the gestational age of 18-20 weeks.

- c) -The part of the fetus
Part - part of the fetus is a big part of the fetus (head and buttocks), as well as a small part of the fetus (arms and legs), which can be palpated clearly at older gestational age (last trimester). Part of the fetus can be seen as a more perfect use of ultrasound.

- d) fetal skeleton
The fetal skeleton can be seen with ultrasou
nd
although
radiogra
phs.

Understanding Malaria

Malaria is an acute or chronic disease caused by protozoan Plasmodium genus with manifestations such as fever, anemia and an enlarged spleen. While other experts according to malaria is an acute or chronic infectious disease that causes by

Plasmodium infection that attacks the erythrocytes and marked by the discovery of asexual forms in the blood, with fever, chills, anemia, and enlarged spleen.¹⁰

Signs Symptoms of Malaria

According to the severity of the symptoms of malaria can be divided into two types;

a) Symptoms of mild malaria (uncomplicated malaria)

Although called mild malaria, the actual sufferers' symptoms felt pretty excruciating (aka quite heavy). The main malaria symptoms are fever and chills, which can also be accompanied by headache, nausea, vomiting, diarrhea, muscle pain or aches.

b) Symptoms of severe malaria (malaria with complications)

Patients said to suffer from severe malaria in the blood when malaria parasites are found through inspection laboratorium.¹⁰

Etiology Malaria

The malaria-causing parasite is Plasmodium species. Plasmodium is a parasite that includes the phylum Protozoa, Sporozoa class. There are five species of Plasmodium in humans, namely: vivax malaria-causing Plasmodium vivax (benign tertian malaria). Plasmodium falciparum causing malaria falciparum (malaria tropics, malaria version malignant). Kuartana malaria-causing Plasmodium malaria and Plasmodium ovale cause ovale malaria.

Epidemiology Malaria

Malaria is found in areas that are located at the position 64° to 32° north latitude south latitude. The spread of malaria at an altitude of 400 meters below sea level and 2600 meters above the surface laut.²

Pathogenesis Malaria

The pathogenesis of severe malaria was very complex, involving the parasite factors, host factors, social factors, and the environment. These three factors are interrelated with each other, and determine the clinical manifestations of malaria ranging from the lightest (asymptomatic) to the most severe malaria with complications that failed organ.²

Malaria In Pregnancy

Malaria in pregnancy can lead to a variety of circumstances pathology in pregnant women, such as fever, anemia, hypoglycemia, acute pulmonary edema, kidney failure can even cause death. Fetal causes abortion, premature delivery, low birth weight, and fetal death. This caused abnormalities that greatly depend on the immune status, parity and maternal age. In areas of high endemicity, where its population already has immunity facing malaria, severe malaria is rare and death. Clinical steamed-initiate a degree of parasitemia and will also be more severe in pregnant women and old primigravida muda.¹¹

Risk Factors Pregnant Women Against Malaria

The process of pregnancy into individual factors will aggravate cases of malaria experienced by pregnant women, and a pregnant woman suffering from

malaria will affect the process of pregnancy and abnormalities in newborns.

Definition

Carica Papaya is a plant that is sold commercially with the biggest producing countries including Indonesia, Brazil, Nigeria, Mexico, and India. This plant contains many compounds in which there are vitamin A, vitamin C, calcium, papain, and others. The compounds contained in papaya leaves nothing to be larvicides such as papain and alkaloids karpai.

Compounds And Ingredients Contained in Papaya Leaf.

The content of chemical compounds Papaya (*Carica papaya* L.) contains alkaloids karpainin, karpain, pseudokarpain, vitamin C and E, choline, and karposid. Papaya leaf contains a glucosinolate called benzyl isothiocyanate. Papaya leaves also contain minerals such as potassium, calcium, magnesium, copper, iron, zinc, and manganese. In addition, papaya leaves contain alkaloids karpain, karikaksantin, violaxanthin, papain, saponins, flavonoids, and tannin.¹⁴

Benefits of Papaya Leaf (*Carica Papaya*)

One of the plants which are known efficacious in many aspects is papaya. Selan anti-tumor, dau papaya also has the potential to be used as controlling termites. In all parts of the papaya enzyme, there is also a prosthesis that serves to break down protein, the enzyme is enzyme papain. It is expected that papaya leaf processing techniques in a way excretes reinforce the levels of natural

substances that already exist in these leaves so that it can be utilized properly.

Papaya Plant Classification

Papaya plant classification is as follows:

Regnum	: Plantae
Division	: Spermatophyta
Class	: Dicotyledoneae
The Order	: Cistales
Family	: Caricaceae
genus	: Carica
Species	: Carica Papaya L.



Figure. 1 Plant Papaya (Source: Personal Collection)



Figure 2. Papaya (Source: Personal Collection)

Research methods

Types of research

This research type is the type of experimental research with pretest and possesses an example, the group divided into two groups. The first group was

given treatment and a second group was given no treatment. The first group is called the experimental second group is called a control group.

Place and time of research

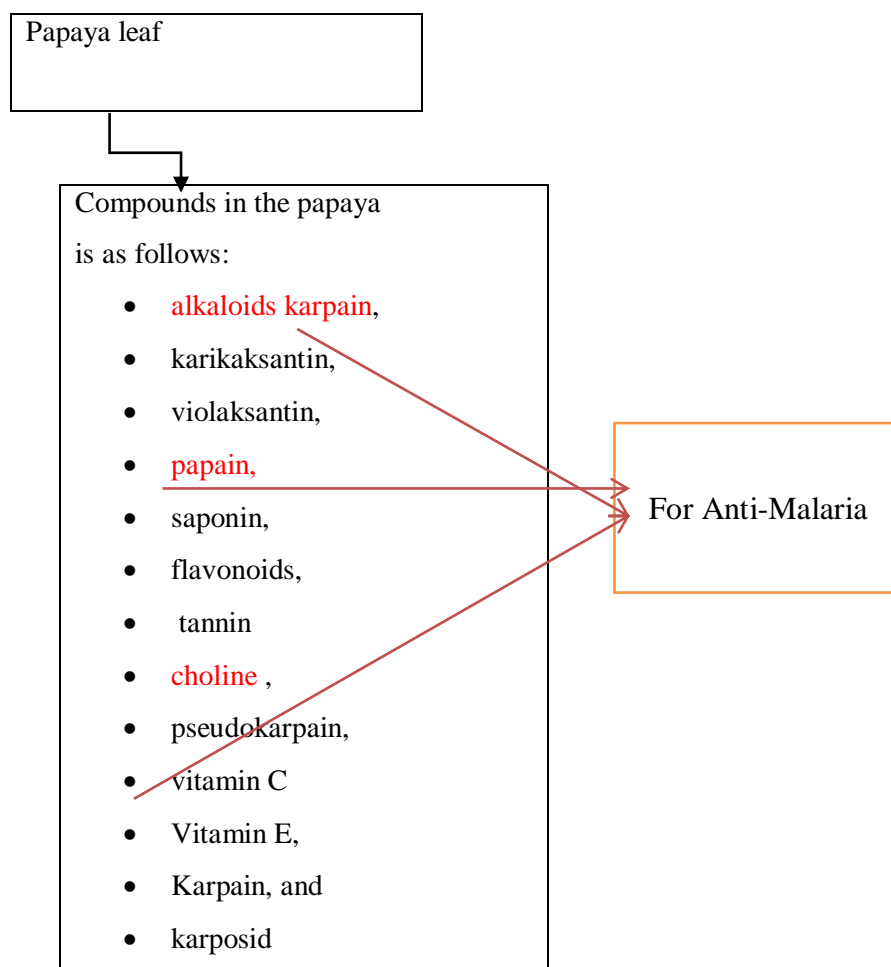
1) The place

This study will be conducted in the Clinic Pitu Tobelo District of North, North Halmahera District.

2) Time

This study was planned for approximately one month, from the month of July until August 2019.

Papaya Leaf 3.2 Theoretical framework



Source: Journal of Laboratory Equator 2017.13

Operational definition

Operational definitions are variable research that aims to understand the meaning of each study prior to analysis.

Operational Definition:

NO	variables	Operational definition	How to Measure	Measure Results	Scale
	Papaya leaf	<i>CaricaPepayais</i> a plant that is sold commercially with the biggest producing countries including Indonesia, Brazil, Nigeria, Mexico, and India. The most active in <i>Carica papaya</i> is papain. Papain is an enzyme found in the leaves, sap, roots, and fruit of the papaya plant that catalyzes the breakdown of protein by adding a water molecule known as hydrolysis.	<ol style="list-style-type: none"> 1. be given 2. not given 	Decrease 1. Terjadi Anti Malaria There 2. Tidak	Nominal
	Decrease Anti Malaria	Malaria is an acute or chronic disease caused by protozoan <i>Plasmodium</i> genus with manifestations such as fever, anemia and an enlarged spleen. While other experts according to malaria is an acute or chronic infectious disease that causes by <i>Plasmodium</i> infection that attacks the erythrocytes and marked by the discovery of asexual forms in the blood, with fever, chills, anemia, spleen, and enlargement	How to measure: Research was carried out by giving papaya leaves boiled water to patients in the morning and evening respectively 250 mg.	Category: 1. Sembuh 2. Fixed	

Location and Time Research

Research Sites

This study will be conducted in Clinic Pitu, District of North Tobelo, North Halmahera regency.

Research time

The study was planned for approximately one month, from the month of July till by August 2019.

Method of collecting data

Primary data

a) methods Interviews

It is a way to collect data for a question and answer to the respondents. Expected in the interviews can receive information about the Pregnancy suffering from malaria in pregnancy.

b) methods of Observation

It is the direct observation of an object to be studied. In this proposal arrangement, the data will be made a comparison of what has been conveyed by the respondents and development.

Secondary Data

Secondary data were obtained from literature, literature studies, journal research, as well as data obtained from health Pitu about Pregnancy with Malaria.

Data Collection Procedures

Administrative procedures

- a. Data collection was done after getting permission from the research.
- b. dissemination plan research to patients and families of patients who fit the criteria illusion earlier, the socialized is the intent and purpose of research, the content or chemical compound contained in the leaves of papaya (*Carica Papaya*) and its uses, techniques or methods in the study benefited from the results research later. If everything is clearly understood by the patient asked her to sign informed agree with consent.

Intervention procedures

- a. Researchers ensure patient / Maternal who will do the procedure interference Malaria
- b. researchers always give an explanation on the patient / pregnant women about the intent and purpose of this research, research methods and the content and benefits of the papaya leaves.

- c. provide an opportunity to the Patient / Pregnant and family (husband) to submit a question, and provide informed consent, ask for a signature as proof agrees of patient / pregnant mothers and family (husband).
- d. before being given papaya first processed in the following manner:
 1. Papaya leaf is taken from the garden,
 2. continue papaya in the clear,
 3. Then his papaya leaves boiled until cooked,
 4. Then give the water to the patient to drink.

Data analysis

1. Univariate analysis

Univariate Analysis Also called descriptive analysis is the analysis of expounding characteristics each variable studied.

2. Bivariate analysis

Conducted to determine the shape of the relationship between the two variables (Independent and dependent variables). For this study, the normality test and used statistical tests parametric namely T-test (Paired sample t-test) of the test procedures in two equal groups (dependent) and Just compare the before and after the intervention, the significance level test results of T-test was $P < 0.05$.

Discussion

Consume Papaya Leaf Water Stew

Air stew Papaya Leaf (*Carica papaya*) is shown to have a wide variety of pharmacological activities.

Chemical content contained in papaya extract that is instrumental in providing pharmacological activity, which aims to transform and give an overview of this class of compounds, antioxidants and contained in the plant that is being examined.

In the study by eating Papaya Leaf Water decoction, 1 month in the treatment group experienced a cure for malaria.

There are several compounds that most contribute to the healing of malaria are Alkaloids karpain, Papain, Kolin. Yet there are other compounds that contribute to the healing of malaria.

Disease in the body due to various causes, one is a free radical. Free radicals are oxygen-based or nitrogen with unpaired electrons are usually produced in the body during metabolism proceed. Excessive free radicals which can lead to many things in the body and potentially as metabolism originator of various degenerative diseases, diabetes, malaria, heart disease, and cancer konorer

People who consume Stew Air Papaya Leaf in the village of times Pitu due to several factors among which is the economic factor that is in accordance with the work people in the village are almost mostly farmers, and plant papaya trees that can be grown in all seasons and easily obtained so can save a family, fertile soil factors causing papaya tree growing plants do not require special care. In addition to the already proven benefits of papaya tree crops in some people who have been taking them. In terms of greater benefit in comparing side effects, in contrast to modern medicine that the level of danger and the risk is much higher.

The healing process was sick with malaria in pregnant women

According to table 7. It indicates that the healing process occurs in malaria in pregnant women as many as five people (50%).

RESULTS

For the results obtained from research through to patient socialization Malaria About Eating Papaya Leaf Water Stew Perception can impact positively received by people with malaria.

Effect of Water Stew consuming Papaya Leaf Against Pregnant Women with Malaria

According to table 6. Shows that most respondents consuming Papaya Leaf Water Stew experienced a healing of malaria, namely five respondents (50%), while 5 (50%) respondents who do not consume water decoction Papaya Leaf did not experience healing.

Mothers who do not consume Stew Air Papaya Leaf did not experience the healing to know that the difference in the healing process of malaria in pregnant women who consume Stew Air Papaya Leaf and do not consume Stew Air Papaya Leaf caused for 7 days in pregnant women suffering from malaria results can be cured slowly, in addition to consuming Papaya Leaf Water decoction can be cured and do not cause side effects. To that end, Papaya Leaf Water decoction is excellent in consumption by pregnant women suffering from malaria.

The test results of traditional medicinal plants as an anti-malarial drug include a lime tree leaves Araliaceae family that grows in open forests in Southeast Asia, including Indonesia. Maluku society by this plant, known as "lime tree". Lime trees are found in the Moluccas and the leaves have long been used traditionally to treat malaria. Treatment using lime leaves young shoots taken by malaria. In Turalely study (2011), found that the methanol extract of leaves of lime tree (Harmsiopanax

aculeatus Harms) has the most excellent antiplasmodial activity. Similarly, in the study of Wijaya, Joseph and Jacky (2013), which prove the content of the old lime leaf extract contains active compounds methanol extract as an anti-malarial drug. Parasite (*Dendrophthoe pentandra*) is a wild plant and has not been cultivated, strong branching, height can be more than 1 meter and plant-haired. Parasite (*Dendrophthoe pentandra*) is a parasitic plant that is included in the 3000 other plant species that have potential as a medicinal plant. Parasite commonly found in every region in Indonesia and can be found easily on the big trees in the tropics. Research Faiqoh Z. et al (2013) found that the ethanol extract of mistletoe has good antiplasmodial activity. In addition, research Budi DS, et al (2013), the results of these studies prove also that the parasite has antiplasmodial good activity against *P. falciparum*.

Mangosteen (*Garcinia mangostana* Linn.) It is a plant that lives in the tropics and is known as an evergreen tree from the tropics. The mangosteen fruit is known as the queen of fruits that have anti-inflammatory activity and a high antioxidant in the world. Xanthone mangosteen peel extract contains an active ingredient which is a very high antioxidant. According to Kumar A (2012), mangosteen peel extract contains 95% xanthan, isoflavones, tannins, and flavonoids. In research Iqbal M, et al (2013), showed that the mangosteen rind extract has the best potential as an anti-malarial. In these studies prove ethyl acetate fraction of mangosteen peel extract has the best potential as an anti-malarial with ED50 63.272 mg/kg. Research Diana (2012), concluded that the water fraction of the mangosteen peel effect on a decrease in serum levels of ICAM-1. ICAM-1 (intercellular adhesion molecule-1) is one example of

a receptor that plays a role in the pathogenesis of cerebral malaria, especially on malaria.

Red fruit is a kind of traditional pieces that are found in areas of Papua society called Kuansu Wewena. Red fruit, including plants pandanus family with like pandanus trees, tall mencapai 16 meters with a height of branch-free trunk as high as 5-8 meters with prop roots on the stem side down. Antioxidants can reduce the red fruit biomolecular responses associated with severe malaria in certain doses. Giving red juice in mice with malaria parasitemia berghei can lower percentage, serum levels of TNF- α and ICAM 1. Red fruit has potential in the treatment of malaria and inhibits the occurrence of cerebral malaria. Similarly, in the study Okto (2009), showed red juice at doses of 0,

Jackfruit (*Artocarpus champion*) is a fruit plant that is one species native to Indonesia in the form of fruit, flavor, and fragrance as jackfruit. Jackfruit grows in South Sumatra, North Sumatra, Bangka, Belitung Island, East Kalimantan, and Central Kalimantan. Jackfruit tree green obtaining and reaching 20 meters high. Twigs and buds with fine hair, stiff and brown. The results of the isolation of this crop in research Widyawaruyanti, et al obtained the content artoindonesianin E (1), Heterollavanon C (2), Artoindonesianin R (3), heterophilic (4), Artoindonesianin A-2 (6) and Sikloheterofilin (7) Antonin A (9), two new compounds (5) artokarpon artokarpon A and B (8). The ninth of these compounds have anti-malarial activity, except artoindonesianin compound E.

Betel is a native plant that grows vines Indonesia or leaning on another tree. Betel is used as a medicinal plant and can be used also as an ornamental plant. These plant vines can reach a height of 15 meters, betel fruit is round and green-gray. Its roots riding,

round, and yellowish-brown in color. In studies Yun (2009), betel vine herb also effectively eliminate the malaria parasites in the blood of 91.4% did not indicate the presence of malaria parasites. Besides that administration of betel vine and leaf concoction Miyana, honey and egg yolk influencing antimalarial activity. The herb contains several compounds antiplasmodial.

Mundu (*Garcinia Dulcis* Kurz) is a kind of tree native to Indonesia and is numerous in Java and Kalimantan and is known as the apple of Java. Mundu medium-sized tree, its trunk upright, brown and up to 20 meters. Mundu yellow fruit, juicy and number of seeds 1-4 grains. Mundu stem bark can also be used as an anti-malarial drug. This plant has the characteristic features of a short-trunked maximum height of 13-15 meters. The stem is brown and white gummy. Widodo research and Rahayu (2010), using the ethyl acetate extract of the bark mundu with a dose of 50 mg/kg showed the highest antimalarial activity against *P. berghei* in mice are induced. Classes of compounds identified in the extract of ethyl acetate and alleged role in anti-malarial activity are flavonoids, saponins, and tannins. Research Rahayu, et al (2014) by testing the activity of the ethyl acetate extract antiplasmodial mundu bark obtained ED50 dose is 5.01 mg/kg. Based on these data the ethyl acetate extract of bark mundu has antiplasmodial activity.

Sunflower (*Helianthus annuus* L.) is an annual plant that is popular as an ornamental plant and oilseeds. Plant flowers large, bright yellow with the flower head reaching 30 cm in diameter. These flowers are arranged and always facing the sun. Sunflower (*Helianthus annuus* L.) is often also used as traditional medicine for the treatment of malaria one. In Biological Research (2010) proved that the

Sunflower (*Helianthus annuus* L.) It contains sesquiterpenoids compounds as a potential anti-malarial.

The content of active compounds contained various types of plants can be useful as an anti-malarial drug. Medicinal plants as raw material for medicine are needed in Indonesia with the development of the traditional medicine industry and increased marketing of the traditional medicine industry is an opportunity in the development of medicinal plants, especially anti-malarial drugs. From several studies above prove that the active compound in the medicinal plant species has been scientifically tested, so it can be used by people in traditional medicine anti-malaria efforts. According to Abdul et al (2013) until now the traditional treatment of malaria become the people's choice, for a variety of experiences and information received by the public in the efficacy of the treatment.

Development of medicinal plants that have been tested on several scientific studies necessary further efforts would traditionally malaria drug administration included in the health service. One of the requirements that traditional medicine can be included in the health service is the level of security and public health has been scientifically proven and are replicable (reproducible) either in dosage form, safety, and benefits of use. So that traditional medicine has proven efficacy, benefits, and safety it is necessary preparations contain information regarding the usefulness empirically, a broad range of user communities, technology pharmaceutical use (how to manufacture, dosage forms, how to use, the materials used, the identity and manner of acquisition and availability *Simplicia* source material).

Conclusion

1. Most of the respondents consume papaya leaves water decoction that is 5 respondents (50%) by eating Papaya Leaf Water Stew.
2. The healing process partly taking Malaria respondents experienced healing Malaria as many as 5 people with 5 people in the experimental group and 5 patients daro control group.
3. There is the influence of Papaya Leaf consume water decoction to cure Malaria In Pregnant Women

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