

The Effect Of Giving The Rest Cleanser Of Manjakani Decoction Seeds (*Quercus Infectoria Gall*) Against Leucorrhoea Complaints On Hormonal Contraception Acceptors In The Work Area Of Puskesmas Sukajadi The City Of Bandung

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Abstract—The high family involvement in KB (family planning) is an indicator of GERMAS (Healthy Living Community Movement) success which is one of the government's efforts to control the growth of population and improve the qualifying small families. Most family planning programs used by KB acceptors are hormone contraception due to practical, convenient, and reversible work to prevent conception. The use of hormonal contraception is at risk of a 50% increase in vaginal complaints or leucorrhoea compared to women who do not use hormonal contraception. The complaint of leucorrhoea commonly occurs in reproductive girl characterized by an increase in the amount of vaginal mucus, greenish/grayish yellow, itchy, stinging and causing discomfort. Empirically, manjakani is used as a cleanser for female organs to prevent and cure vaginal discharge. It is believed that the active substance contains antibacterial and antifungal effects. This study aims to determine the effect of giving the rest cleanser of manjakani decoction seeds (*Quercus infectoria Gall*) on vaginal discharge complaints on hormonal contraceptives. The research method uses quasi-experiment with pre-post without control group design. Sampling techniques with executive sampling. The sample in this study were hormonal contraceptive acceptors who had leucorrhoea complaints in the work area of Puskesmas Sukajadi in Bandung City that met the inclusion and exclusion criteria with a total of 26 people who were given a Manjakani seed decoction for seven days as much as two times daily. Measurement of complaints was conducted with a long clinical sheet. Data analysis using nonparametric statistics with the Wilcoxon test. The results of the study found a significant difference in charges before and after giving a manjakani seed decoction with a value of $p < 0.05$. There is a reduction in vaginal discharge complaints by 60%. The administration of

Manjakani seed decoction affects the leucorrhoea of hormonal contraceptive acceptors.

Keywords— Hormonal Contraception, Leucorrhoea Complaints, Manjakani (*Quercus infectoria Gall*).

I. INTRODUCTION

One indicator of the success of GERMAS (Healthy Living Community Movement) is the high of family involvement in family planning (KB) which is also one of the government's efforts to control population growth and increase quality small families.¹ Indonesia is the fourth country with the largest population of 265 million. The government continues to strive to reduce the growth rate with the Family Planning program. Based on data from the 2012 Indonesian Demographic Health Survey, it shows that 58% of women use modern contraceptive methods, such as injectable hormonal contraceptives, pills, implants, and IUD.^{2,3}

Modern contraception is one of the most effective, convenient, and reversible methods to prevent the conception of contraception.^{1,3} The acceptors feel the effects of contraceptive use, one of which is leucorrhoea. Leucorrhoea complaints felt by women are vaginal secretions which always wet the inside part of the woman and can cause irritation, itching, stinging, greenish yellow/gray so that they interfere, and reduce comfort, and reduce self-confidence.^{4,5} Hormonal contraceptive contains prostate and combination consisting of synthetic steroid hormones such as estrogen and progestin.^{6,7} It several effects including bleeding or menstrual disorders, high blood pressure, weight gain, acne, chloasma, decreased milk production, liver dysfunction, varicose veins, changes in libido

, depression, dizziness (migraine), nausea, vomiting, hair loss, galactorrhea, vaginal candidiasis, and leukorrhea or vaginal discharge.⁶⁻⁸

The incidence of leucorrhoea in southern East Asia accounts for about a quarter of all women.⁹ Research data on women's reproductive health shows that 75% of women in the world suffer from leucorrhoea, at least once in a lifetime and 45% can experience twice or more.⁹⁻¹¹ Leucorrhoea, one of them, can be caused by the use of hormonal contraceptives. Its use can increase the risk of vaginal discharge by 50% compared with women who do not use it.^{10,12} Based on the 2012 Indonesian Demographic Health Survey, the incidence of pathological vaginal discharge in women aged 15-49 years is an average of 11, 3%. These data state that there are quite high rates of vaginal discharge in Indonesia in women of reproductive age.²

The mechanism of how hormonal contraception works provides negative feedback to the pituitary gland through the hypothalamus that capable of detaining the follicles and ovulation process.⁶⁻⁸ Progesterone can affect carbohydrate metabolism in the body so that it can increase blood sugar levels in the body, and thicken vaginal secretions that make hormonal contraceptive acceptors feel more vaginal discharge or fluid coming out and thick. The mechanism of how estrogen acts affect the thickness of the vaginal epithelium, and glycogen levels on the surface of the vaginal epithelium. As a result, the process of exhalation in releasing superficial cells in the glycogen-rich epithelium is not completely metabolized by normal flora and make lactic acid insufficient to maintain normal vaginal pH, and the remaining stored glucose becomes food for bacteria and fungi to breed.^{5, 8, 11, 13,}

Based on a preliminary survey of 10 samples of women using hormonal contraceptives, seven women experienced groin complaints. Leucorrhoea needs to be prevented and treated immediately, pharmacological treatment with synthetic ingredients tends to experience complaints such as recurrence, recurrent or repeat, the relatively expensive treatment, need supervision doctor, and other toxic side effects.^{15,16} Treatment that can help even be an alternative to the use of synthetic drugs is needed. Traditional medicine (OT) is one of the Indonesian cultural heritage used for centuries for maintenance, health improvement and prevention and treatment of diseases. Based on genetic evidence and experience (empirical), traditional medicine is still used by Indonesians and in many other countries. As a nation's cultural heritage that contributes a lot to the maintenance of the health of indigenous Indonesians, it needs to be preserved and developed.¹⁷

One of the potential plants found in Indonesia is Manjakani seeds (*Quercus infectory Gall*).¹⁷⁻²¹ The seeds have the same ability as other herbal ingredients, and even have a broader ability than some other herbal ingredients. They are popularly carried out to maintain the area of female sex organs and commonly used in dosage form capsules, powders, jelly, sticks or decoction. However, it is not known with certainty the scientific evidence in overcoming complaints and effective ways to help overcome vaginal discharge complaints. These seeds contain secondary metabolites which can inhibit and kill germs or microorganisms that can cause disease in humans.

^{18,21}

Phytochemical examination of ethanol extract showed the presence of phenols, flavonoids, triterpenes, tannins, saponins and alkaloids and several other important minerals. The process of antimicrobial mechanism of Manjakani, namely by interfering with cell wall synthesis, membrane function, protein synthesis, nucleic acid metabolism, and intermediary metabolism, so that bacterial and fungal cells will shrink and overlap lysis. The reduced number of pathogenic bacterial and fungal colonies can reduce complaints Leucorrhoea in users of hormonal contraception.^{21, 22,26,27}

II. METHODS

Experimental design with posttest without a control group design carried out in the working area of the Puskesmas Sukajadi in Bandung City in January 2017. A decoction of manjakani seeds made with 14 grams of boiled manjakani seeds in 500cc with a temperature of 90 °C water for 30 minutes. This decoction has been prepared by the researcher to be directly used. Researchers conducted interviews with reddish seed planting for seven days as much as two times a day after showering morning and afternoon. Research subjects were taken by consecutive sampling technique. The subjects were: the users of the contrast hormone of this study were 26 acceptors who experienced leucorrhoea The inclusion criteria of this study were the receptors of hormonal contraception (injections, pills, implants) at least in the last six months, aged 20-45 years, experiencing leucorrhoea, and being a respondent. Exclusion criteria in this study were skin diseases in the vaginal area that could affect the application and evaluation of the research area. The other criteria are menstruating, being pregnancy/planning to be pregnant, using antibiotic medications, has a history of diabetes disease, have been diagnosed with any treatment, subjects who have sensitive skin/irritation after using soap/product treatment in the female area. Compliance measures use a Leucorrhoea observation sheet of Leucorrhoea discrepancies. Data analysis uses a Wilcoxon test to analyze the effect of the reduction of the amount of water cleanser Manjakani on the leucorrhoea.

III. RESULT

TABLE I. CHARACTERISTICS OF RESEARCH SUBJECTS

Characteristics	amount (n = 26)	Percentage (%)
Age (years)		
20-29	13	50
30-39	9	35
40-45	4	15
Level of education		
Elementary school	5	19
Middle school	8	31
High school	11	42
PT	2	8
Work		
Work	3	12
Does not work	23	89
Wedding History		

One time	24	92
> 1 time	2	8
Parity		
One person	12	46
≥Two people	14	54
IMT		
Thin	6	23
Normal	9	35
Fat	9	35
Obesity	2	7
Type of Contraception		
Pill	9	46
Injections	12	54
implant	5	
Length of use of alkon		
6-12 months	12	46
> 12 months	14	54
Personal Hygiene		
Bad	14	54
Good	12	46

Table I showed the characteristics of the subjects by the inclusion and exclusion criteria as much as 26 respondents

TABLE II. LEUCORRHOEA COMPLAINT DATA NORMALITY TEST
HORMONAL CONTRACEPTIVES IN ACCEPTOR

Variable	Statistical Size			Data Normality Test (P value)
	Mean	Elementary school	Range	
Before				
Leucorrhoea Complaints	5.69	1,5359	3-9	0.00
After				
Leucorrhoea complaints	1.68	0.747	1-3	0.00

Table II showed that the data normality test with Shapiro Wilk obtained the value of $p < 0.05$ means that the results of the measurement of complaints before and after giving a splash of Manjakani seed decoction are generally not distributed, so for analysis purposes nonparametric statistics are used.

TABLE III. COMPARISON OF LEUCORRHOEA COMPLAINTS BEFORE AND AFTER GIVING A MANJAKANI SEED DECOCTION ON THE CONTRACEPTIVE ACCEPTANCE OF HORMONES

Variable	Measurement		Percentage (%) Decrease	P value *
	Before	After		
Leucorrhoea Complaints				
Average	5.69	1.68		0.00
Median	6	1	60	
Range	3-9	1-3		

* Wilcoxon test

Table III shows a significant difference in reducing Leucorrhoea complaints after administering water cleanser

Manjakani seeds with a p -value < 0.05 . Moreover, an average reduction in Complaints of 60%. Data testing was performed statistically indicating a significant relationship.

IV. DISCUSSION

The results of the study in Table III show that there is a decrease in the percentage of Leucorrhoea before and after the intervention in the form of the use of Manjakani seed decoction using (60%) with a value of $p < 0.05$. This result has a statistically significant effect.

The use of hormonal contraceptives can risk increasing complaints of Leucorrhoea by 50% compared to women who do not use it. ^{1,2,5,6,8-10} Leucorrhoea complaints can be symptomatic or asymptomatic colonization which is usually determined by changes around the vagina which induce pathological effects. ²²

The complaints felt by women are Leucorrhoea which always moistens the inside part of the woman and can cause irritation, itching, stinging, greenish yellow/grayish, thick and clotted, so that it disrupts, and reduces comfort, and decreases self-esteem. 80 leucorrhoea is not a disease but one of the symptoms of a disease of the female reproductive organs. Leucorrhoea can impact on the health of female reproductive organs. Therefore, it must be immediately prevented and treated as early as possible. ^{13,14,24}

Treatment with the use of chemicals often causes many problems such as the existence of serious side effects, resistance, hard use rules, the need for physician supervision, and a relatively high price. In connection with this problem, it is necessary to look for other agents that have the same power, even more, effective and cheaper. ^{15,26,28}

Preventive efforts and help to reduce Leucorrhoea problems can be used by herbal derived from plants and pure natural ingredients that have negative effects, danger levels, and much lower risks compared to synthetic chemical drugs. One of the potential plants in Indonesia used for the treatment of Leucorrhoea include Manjakani seeds (*Quercus infectoria* Gall) ^{16,19,22}

The complexity of the phytochemical working mechanism in this seeds will inhibit even kill bacterial and fungal cells, with a reduced number of pathogenic bacterial and fungal colonies, the balance of the vaginal ecosystem can be maintained. This condition results in low pH (3.5 to 4.5), which allows continuity life and growth of physiological organisms and prevent pathogenic microbes from breeding that capable of reducing the complaints of vaginal discharge which greatly disturbs the comfort and confidence of women in the health of their female organs. ^{5,11,28}

A lowering number of fungal colonies will also follow a decreasing number of bacterial colonies. This effect is because of the mechanism of how Manjakani seeds work which contain a lot of hydrophilic phytochemical compounds such as the presence of flavonoids, tannins, quinones, saponins and several other compounds that can inhibit and kill pathogenic bacteria and fungi that cause vaginal discharge. ³⁰⁻³²

Complaints are subjective, and sometimes Leucorrhoea has asymptomatic symptoms. Asymptomatic is a disease when the

the Patient is not aware of any symptoms. Patients feel complaints of vaginal discharge ranging from the very mild to no symptoms at all so that they ignore it. It can also be very severe disorder accompanied by complications that can worry patients. It is difficult to ascertain fungi or bacteria as a cause of vaginitis because about 50% of women do not experience any symptoms in the vagina because they found it as microbes as part of the endogenous vaginal flora. Leucorrhoea complaints can be symptomatic or asymptomatic colonization which is usually determined by changes around the vaginal which induce pathological effects.³³

This study directly observed clinical complaint by the leucorrhoea checklist of the Ministry of Health of 2010. This was done to avoid the subjectivity of the results of obtaining Leucorrhoea data. Researchers observed signs of Leucorrhoea which included the number of vaginal secretions, color, odor, the presence of abrasions/lesions to mengesismesis about complaints the respondent felt. The findings showed that before using the rest cleanser of Manjakani decoction, the complaints are high and after using it, the complaints are lower. Respondents feel more comfortable, feel cleaner, feel itchy and smell less and are more confident.

Administration of Manjakani seed decoction can overcome and reduce vaginal complaints of hormonal contraceptive acceptors, because it can help the body's internal ability, especially the vagina, to maintain its physiological condition in the external genital organs to stay clean and healthy. Treatment of the female organs is essential to do, such as maintaining a healthy lifestyle and sex, personal hygiene and being able to use the female organs carefully and according to proper usage rules.^{11,26,27}

V. CONCLUSION

The administration of manjakani seed decoction (*Quercus Infectoria Gall*) for seven days related to reducing Leucorrhoea complaints of hormonal contraceptive acceptors.

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