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THE EFFECT OF PAINAGE JUICE (ANANAS COMOSUS L. MERR) ON PERINEUM WOUND HEALING IN POST PARTUM MOTHERS

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ABSTRACT

The impact of good perineal care can avoid infection, complications and postpartum maternal death. According to data from the World Health Organization (WHO) in 2019 there were 3.4 million cases of perineal tears in childbirth. The purpose of this study was to determine the effect of giving pineapple juice (AnanasComosus L. Merr) on the healing of perineal wounds in post partum mothers in KualuNenas Village, the working area of the Tambang Health Center, Kampar Regency. This type of research is a pre-experimental design with One Group pretest and posttest. The population in this study were all post partum mothers who experienced second degree perineal injuries in KualuNenas Village with a sample of 21 postpartum mothers. The sampling technique used was total sampling. The research instrument used an observation sheet. Data analysis in this research is univariate and bivariate analysis. The results showed that the average degree of perineal wound healing before being given pineapple juice was 2.33 cm, and after being given pineapple juice was 1.38 cm. There is an effect of giving pineapple juice on perineal wound healing in post partum mothers with ap value of 0.000. It is hoped that postpartum mothers can apply this therapy to reduce the degree of perineal wound during the puerperium it can reduce the risk of infection during the puerperium. There is an effect of giving pineapple juice on perinealwound healing in post partum mothers with ap value of 0.000. It is hoped that postpartum mothers can apply this therapy to reduce the degree of perineal wound during the puerperium it can reduce the risk of infection during the puerperium. There is an effect of giving pineapple juice on perineal wound healing in post partum mothers with ap value of 0.000. It is hoped that postpartum mothers can apply this therapy to reduce the degree of perineal wound during the puerperium it can reduce the risk of infection during the puerperium.

Keywords: Pineapple Juice, Perineal Wound

INTRODUCTION

Childbirth is the process of expelling the products of conception (fetus and placenta) that are already months old and can live outside the womb through the birth canal or through other routes, with or without assistance (own strength). This process begins with true labor contractions, which is characterized by progressive cervical changes and ends with the delivery of the placenta [1]. In childbirth, there will be an injury to the birth canal or what is called a perineal wound. There are two types of perineal wounds, namely perineal rupture and episiotomy. Perineal rupture is an injury to the perineum caused by natural tissue damage due to

the pressure of the fetal head or shoulder during the delivery process. The shape of the rupture is usually irregular so that the torn tissue is difficult to suture [2].

The maternal mortality rate during the puerperium after delivery is estimated at 60% and 50% of postpartum deaths occur within 24 hours after delivery, one of the complications that often occurs is perineal rupture (perineal rupture) which occurs in almost all primigravida deliveries and is not uncommon in subsequent deliveries. which can cause bleeding and infection resulting in maternal morbidity and mortality [3]. The causes of the birth canal tear are large fetal head, deflection presentation, primipara, breech position, wrong delivery leadership, and vacuum extraction, forceps extraction, and embryotomy. Complications that occur in perineal rupture are weakening of the pelvic diaphragm and predispose to uterine prolapse and fistulas in the future and one of the efforts that can be made to reduce the frequency of complications in perineal rupture is with aseptic and antiseptic techniques in treating perineal wounds [4].

The impact of perineal care that is carried out properly can avoid infection, complications and postpartum maternal death. The condition of the perineum that is exposed to lochia and moist will greatly support the proliferation of bacteria that can cause infection in the perineum. The appearance of infection in the perineum can spread to the bladder tract or the birth canal which can result in the emergence of complications of bladder infection or infection in the birth canal. Handling complications for a long time can cause death in postpartum mothers [5]. According to data from the World Health Organization (WHO) in 2018, there were 2.7 million cases of perineal rupture in women giving birth, while in 2019 there were 3.4 million cases of perineal tears in women giving birth and this figure is estimated to reach 6.3 million in 2050. Along with the increasing number of midwives who do not know good midwifery care. In America, 26 million women give birth who experience perineal rupture, 40% of whom have perineal rupture [6]. In Asia, perineal rupture is also quite a problem in society, 50% of the incidence of perineal rupture in the world occurs in Asia. The prevalence of maternity mothers who experience perineal rupture in Indonesia with the incidence of suture wound infection is 5% and bleeding is 7% and postpartum maternal mortality is 8%.

The incidence of maternity mothers who experienced perineal tears in 2018 in Indonesia in the 25-30 year age group was 24%, and at the age of 32-39 years it was 62%. In Indonesia, it was found that one in five maternity mothers who experienced a perineal rupture would die with a proportion of 21.74%. In 2019, 75% of perineal lacerations were experienced by women who gave birth vaginally. In 2019 found that out of a total of 1951 spontaneous vaginal births, 57% of mothers received perineal sutures (28% due to episiotomy and 29% due to spontaneous tears) [7]. Data from the Riau Provincial Health Office [8] 35.63% of the causes of postpartum hemorrhage are birth canal injuries, either by episiotomy or spontaneous tearing (Health Department, 2018). Based on the Pekanbaru Regency/City health profile report in 2020, it was found that in ArifinAchmad Hospital Pekanbaru, there were 113 (40.21%) spontaneous perineal

ruptures that occurred in 281 deliveries, while those who did not experience perineal rupture were recorded as 168 (59.79%) [9].

At the Mining Health Center in 2018 there were 32 cases of perineal rupture, in 2019 it decreased to 26 people, while in 2020 it increased again to 41 people (Puskesmas Tambang, 2018, 2019, 2020) [10]. The perineal tear, either naturally or by episiotomy, results in impaired function of the pelvic floor muscles, which can reduce the quality of life of the mother after giving birth. Mother becomes unable to control urination (BAK) and defecation (BAB) because some nerves or even muscles are cut off. Stretching and tearing the perineum during labor can weaken the pelvic floor muscles. Trauma to the perineum also causes discomfort and pain during sexual activity [11].

Treatment of perineal wounds in mothers after childbirth is useful for reducing discomfort, maintaining cleanliness, preventing infection and accelerating healing of perineal sutures. One solution for postpartum mothers to accelerate the healing of perineal wounds in addition to using medical drugs is traditional medicine, which is obtained from the natural herbal world, namely the application of pineapple juice to help accelerate the healing of perineal wounds [12]. Pineapple juice in post partum mothers who experience perineal rupture is a natural and simple alternative to accelerate wound healing other than using drugs. Pineapple contains the enzyme Bromelain which acts as an anti-inflammatory. Bromelain in pineapple can reduce the average number of days to relieve post-surgery pain and wounds that cause inflammation [13].

The ability of pineapple juice in accelerating the healing of perineal wounds is due to the content of the enzyme bromelain in pineapple juice. This enzyme plays a role in the inflammatory phase of the wound healing process. This phase lasts from the occurrence of the injury until the fifth day. The potential of bromelain as an anti-pain, anti-edema, debridement (removing skin debris) due to burns, accelerates wound healing, and increases antibiotic absorption, is very useful in postoperative healing [14]. Pineapple fruit also has the enzyme Bromelain which acts as an anti-inflammatory. The bromelain in pineapple can reduce the average number of days to relieve post-surgery pain and sores that cause inflammation. Research on women who had an episiotomy showed that the bromelain contained in pineapple was effective in reducing swelling, bruising, and pain, in women who had an episiotomy [15].

Research conducted by Endang (2019) in his research showed that the average value of pretest wound healing was 2.05 and on the posttest of 0.24. This indicates the healing of perineal wounds after administration of pineapple juice with a significant value of $P\text{-Value} = 0.001 < 0.05$. In the working area of the Mining Health Center, there are many pineapples belonging to the community, precisely in the village of KualuNenas. In this village there has been a growing business of selling pineapples as one of the community businesses engaged in the home industry sector which in recent years has experienced quite rapid development. Besides being cheap, the fruit is also sweet. The preliminary survey conducted on March 29, 2021 in KualuNenas Village,

the working area of the Mining Health Center, there were 101 postpartum mothers in 2020 and from January to March 2021 the number of postpartum mothers was 21. From interviews conducted with 5 postpartum mothers, it was found that they did not know that pineapple juice could accelerate the healing process of perineal wounds, they only consumed drugs obtained from midwives to accelerate the wound healing process [16].Based on the background of the problem above, the researcher is interested in conducting research on "the effect of giving pineapple juice (*AnanasComosus* L. Merr) on perineal wound healing in post partum mothers in KualuNenas Village, the working area of the Tambang Health Center, Kampar Regency [17].

RESEARCH METHODS

This type of research is a pre-experimental research with a One Group pretest and posttest design. This research was conducted in KualuNenas Village, the working area of the Tambang Health Center in 2021. The sample was 21 post partummothers.The sampling technique used purposive sampling method.The research instrument used an observation sheet. The data analysis used in this study was univariate and bivariate

RESULTS AND DISCUSSION

Table 1 Frequency Distribution Characteristics of RespondentsBased on Mother's Age in KualuNenas Village, Mining Health Center Working Area

Mother's Age	F	%
17-25 years old	9	42.8
26-35 years old	12	57.2
Amount	21	100

Based on table 1, most of the respondents aged 26-35 years were 57.2%.

Table 2 Frequency Distribution Characteristics of Respondents Based on Mother's Education in KualuNenas Village, Mining Health Center Working Area

Education	F	%
Low Education (SD, SMP)	7	33.3
Intermediate (high school)	14	66.7
Amount	21	100

Based on table 2 most of the respondents have secondary education, namely 14 (66.7%).

Table 3 Frequency Distribution Characteristics of Respondents Based on Mother's Education in KualuNenas Village, Mining Health Center Working Area

Work	F	%
Working	4	19.0
Doesn't work	17	81.0
Amount	21	100

Based on table 3 most of the jobs are domestic workers, namely 17 (81%).

Table 4 Distribution Degree of Perineal Wound Before Giving Pineapple Juice in Kuala Nenas Village Working Area of Mining Health Center

Variable	Mean (cm)	Min-Max
Degree of Perineal Wound before giving pineapple juice	2.33	2-3

Based on table 4, it can be seen that the degree of perineal injury before pineapple juice was given was 2.33 cm with a standard deficiency of 0.48

Table 5 Distribution of Degrees of Perineal Wounds After Giving Pineapple Juice in Kuala Nenas Village Working Area of Mining Health Center

Variable	Mean (cm)	Min-Max
Degree of Perineal Wound after being given pineapple juice	1.38	1-2

Based on table 5 it can be seen that the degree of perineal wound after pineapple juice is given is 1.38 cm with a standard deficiency of 0.498

Table 6 Giving Effect Pineapple Juice on Perineal Wound Healing in the Working Area of the Mining Health Center in 2022

Variable	Mean Rank	Z	P value
Degree of perineal injury before	9.50		

The degree of perineal injury after	-4.066	0.000
	0.00	

Based on table 6 , it can be seen that the Z value is -4.066 with a value of 0.000 (< 0.05), which means that there is an effect of giving pineapple juice on perineal wound healing in post partum mothers in Kualu Nenas Village, Tambang Health Center Work Area in 2021.

DISCUSSION

Based on the results of research on the effect of giving pineapple juice on perineal wound healing in postpartum mothers in Kualu Nenas Village, Tambang Health Center Work Area in 2021 the results obtained that the data is normally distributed because > 0.05 . Judging from the facts encountered and compared with existing theories, a discussion was made according to the research variables as follows:

1. The effect of giving pineapple juice on perineal wound healing in post partum mothers in Kualu Nenas Village, Tambang Health Center Working Area in 2021
2. After doing bivariate analysis, the results obtained that there is an effect of giving pineapple juice on perineal wound healing in postpartum mothers in Kualu Nenas Village, Tambang Health Center Work Area in 2021 with a p value of 0.000

Postpartum mothers should eat a lot of foods that contain protein, lots of fluids, vegetables and fruits and there is no limit to the intake of fluids. Fruits contain various vitamins and minerals, which play a role in facilitating the functioning of the body's organs, especially accelerating uterine involution. The ability of pineapple juice in accelerating the healing of perineal wounds is due to the content of the enzyme bromelain in pineapple juice. This enzyme plays a role in the inflammatory phase of the wound healing process. This phase lasts from the occurrence of the injury until the fifth day. The potential of bromelain as an anti-pain, anti-edema, debridement (removing skin debris) due to burns, accelerates wound healing (Astuty, 2017)

Bromelain enzymes have the ability to break down proteins into amino acids. Bromelain is efficacious in helping food digestion, anti-inflammatory, removing dead skin cells and skin diseases such as itching, eczema and scabies (Mayasari, 2018). Pineapple juice also contains pectin, vitamin C, and the enzyme bromelain which is efficacious for reducing pain and improving blood circulation and efficacious for the wound healing process. This means that consuming pineapple juice can accelerate the healing of perineal wounds (Endang, 2019).

Perineal rupture is a rupture that occurs in the perineum during childbirth, because the perineum not only plays a role or becomes an important part of the labor process, but is also needed to

control defecation and urination, maintain normal peristaltic activity (by maintaining intra-abdominal pressure) and function. healthy sex (Depkes RI, 2019).

Perineal rupture is a rupture that occurs in the perineum during labor, because the perineum not only plays a role or becomes an important part of the labor process, but is also needed to control bowel movements and urination. Good nutritional status will be able to avoid germ attacks so that infection does not occur during the puerperium in wound healing. Pineapple juice contains pectin, vitamin C, and bromelain enzymes which are efficacious in reducing pain and improving blood circulation and are efficacious for the wound healing process (Lucy, 2019).

The results of this study are in accordance with Damayanti's research (2019) with the title of applying pineapple juice to the acceleration of perineal wounds in postpartum mothers at PBM Sri Rejeki, it was found that there is an effect of giving pineapple juice and honey to accelerate the healing of perineal wounds in postpartum mothers with p value 0.003

This research is also in accordance with research Yulansari (2019) found that the Effect of Pineapple Juice on Reduction in TFU and Acceleration of Perinium Wound Healing in Post Partum Mothers at 5 Bpm Klaten Regency with a p value of 0.000. This study is in accordance with Luci's research (2019), it was found that there was a relationship between perineal wound healing after administration of pineapple juice at PBM Asnawati with a significant value of P-Value = 0.001 < 0.05. According to the researchers' assumptions, pineapple juice contains pectin, vitamin C, and the enzyme bromelain which are efficacious to accelerate the wound healing process. This means that consuming pineapple juice can accelerate the healing of perineal wounds.

SUGGESTION

For Post Partum Mothers

It is hoped that postpartum mothers can apply this therapy to reduce the degree of perineal wound during the puerperium so that it can reduce the risk of infection during the puerperium.

For Mining Health Center

It is expected to provide information to the public that there are no dietary restrictions or abstinence for postpartum mothers. As well as providing regular health education about perineal wound healing counseling and teaching how to treat and recognize danger signs in the event of infection in the perineal wound.

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This research is expected to provide an input for theory and can be used as a source of reference and reading material in increasing student knowledge, especially the midwifery department about the effect of giving pineapple juice in perineal wound healing.

For Further Researchers

For further research, it is recommended to examine different variables about other fruits that can heal perineal wounds quickly.

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