

THE EFFECT OF GIVING BOILED EGGS ON THE DURATION OF HEALING FOR POSTPARTUM WOMEN'S PERINEAL WOUNDS

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2 THE EFFECT OF GIVING BOILED EGGS ON THE DURATION OF HEALING FOR POSTPARTUM WOMEN'S PERINEAL WOUNDS

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Abstract

The postpartum period is an important period because less than optimal implementation can lead to increased morbidity and mortality rates. Perineal wound is a wound that results from a tear the birth canal. Nutritional factor of protein will greatly affect the perineal wound healing process. Egg whites contain very high protein, protein quality, digestibility value, and the best digestibility of eggs among other food ingredients. The purpose of this study was to determine the effectiveness of giving boiled eggs with perineal wound healing. This study uses a quasi-experimental research design, with the research design using a two group post test only design. The intervention group who received treatment with 2 boiled chicken eggs and group II as the control group who only received perineal wound care. The samples was 20 respondents in each group. The sampling technique in this study used purposive sampling. The results used T test showed that there was an effectiveness of giving 2 boiled eggs every day for 7 days on perineal wound healing in postpartum women. Consuming 2 hard-boiled eggs per day for postpartum women with perineal wounds has been shown to accelerate the healing process of perineal wounds in postpartum women.

Keywords: Boiled Eggs; Healing; Postpartum; Perineal Wounds

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1. Introduction

The postpartum period is an important period for health workers to always carry out health monitoring because less than optimal implementation can lead to increased morbidity and mortality rates. In postpartum mothers, one of the causes of morbidity is the incidence of perineal injuries. In Asia, the incidence of perineal injuries in maternity women is 50%, this figure is high compared to other countries (Lidya, 2019).

Perineal wound is a wound that results from a tear in the birth canal either due to an injury or due to an episiotomy at the time of delivery of the fetus (Walyani & Purwoastuti, 2015). In Indonesia, 75% of perineal wounds are experienced by women who gave birth vaginally, in 2013 as many as 1,951 vaginal births 57% received perineal sutures (28% due to episiotomy and 29% spontaneous). The prevalence of maternity women who experience perineal injuries in Indonesia in the 25-30 year age group is 24%, and in the 32-39 year old mother it is 62%. This is closely related to pain in childbirth due to high perineal injuries (Pemiliana, Sarumpaet, & Ziliwu, 2019).

Pain and discomfort that arise in postpartum mothers can be caused by several factors, one of which is due to the presence of postpartum perineal injuries in the mother (Rohmin, Octariani, & Jania, 2017). Improper perineal care can result in perineal conditions that are affected by lochia and humidity which will greatly support the development of bacteria that can cause infection in the perineum. The emergence of infection in the perineum can propagate to the urinary bladder or in the birth canal which can result in the emergence of complications of the bladder and birth canal, so with the many impacts that will occur, it is very important for an effective and quick drying process of perineal wound healing (Dyan, Pramono, & Syukur, 2019).

Nutritional improvement in postpartum mothers is one of the keys to wound healing. Postpartum mothers are advised to eat a balanced diet, sufficient carbohydrates, protein, fat, vitamins and minerals. The main nutritional factor of protein will greatly affect the perineal wound healing process because tissue turnover really needs protein that functions as a building material for cells that support the healing process has been damaged. Increased protein requirements are needed for inflammation, immunity and granulation tissue development (Aisya, Usman, & Dali, 2018).

Perineal wound healing can be handled in various ways, starting from personal hygiene, taking medicines, and food, in nutrition that plays a role in wound healing is protein, which consists of animal and vegetable proteins. It is known that consuming animal protein is better than vegetable protein, so mothers are expected to consume animal protein, one of which is in eggs (Warsito, Rindiani, & Nurdyansyah, 2015). The results of the research conducted by Purnani (2019) found that giving egg whites was more effective than giving snakehead fish for perineal wound healing (Purnani, 2019).

Eggs are a type of animal protein side dish that is cheap and easy to find, economical and one of the most nutrient-dense foods. The nutritional content of whole eggs contains more than 90% calcium and iron, one egg contains 6 grams of quality protein and 9 essential amino acids (Aisya et al., 2018). Egg whites contain very high protein, protein quality, digestibility value, and the best digestibility of eggs among other food ingredients. The digestibility value is 100% compared to meat which is only 81%. Egg white contains 95% albumin which functions for wound healing (Purnani, 2019).

The purpose of this study was to determine the effectiveness of giving boiled eggs with perineal wound healing in postpartum mothers in PMB in the working area of the Curup Health Center, Rejang Lebong Regency in 2020.

2. Method

This study uses a quasi-experimental research design, with the research design using a two group post test only design. This design was used to compare the measurement results after treatment in the two groups. This study used 2 groups, namely group I as the intervention group who received treatment with 2 boiled chicken eggs and group II as the control group who only received perineal wound care.

The population in this study were all maternity mothers who experienced perineal injuries at PMB in the Curup Health Center area. The sample in this study were mothers who experienced perineal injuries in the PMB working area of the Curup Health Center, Rejang Lebong Regency. The sample size in this study was calculated using the Frederer formula with an estimated drop out of 10% so that the number of samples was 20 respondents in each group. The sampling technique in this study used purposive sampling. Data analysis using T Test.

3. Result and Discussion

The frequency distribution of respondents including age, parity, education, and duration of perineal wound healing in postpartum mothers is shown in table 1.

Variabel	Kelompok			
	Treatment		Control	
	n=20		n=20	
	N	%	N	%
Age				
20-35 Years	18	45	19	47,5
<20 Years & >35 Years	2	5	1	2,5
Parity				
Multi&Grande	13	32,5	11	27,5
Primi	7	17,5	9	22,5
Education				
University	2	5	5	12,5
Senior High	13	32,5	8	20
Schol Elementary & Junior High Schol	5	12,5	7	17,5

Based on table 1, it is found that the age of respondents in the intervention group is in the no-risk category, which is 18 respondents (45%) and in the control group there are 19 respondents (47.5%), the parity of respondents in the intervention group is in the multipara and grandepara categories, which are total 13 respondents (32.5%) and in the control group were 11 respondents (27.5%), the education of respondents in the intervention group was in the high school category, namely 13 respondents (32.5%) and in the control group there were 8 respondents (20 %), and respondents who consumed boiled eggs experienced perineal wound healing 7 days as many as 16 respondents (80.0%) and in the control group there were 5 respondents (25%).

Table 2. Average Perineal Wound Healing Time in Postpartum Mothers

Variabel	Mean	Mean Difference	SE	SD	p-value
Treatment	6,75	2,250	0,44	1,58	0,00
Control	9,00		1	1,16	0*
				4	

Based on the results of data processing using the independent t-test statistical test in the control group and the treatment group, there was an influence in both groups on the length of time for perineal wound healing with a p-value <0.05, which is 0.000. The difference in healing time can be seen from the mean value, namely the treatment group has a faster healing

time than the control group with a difference of 2.25 days for healing time. So it can be

concluded that in the intervention group given 2 boiled eggs for 7 days can accelerate the healing time. The results showed that there was an effectiveness of giving 2 boiled eggs every day for 7 days on perineal wound healing in postpartum women with a p-value of 0.000 based on the results of data processing using the Independent T-test statistical test. The difference in healing time can be seen from the

mean value, namely the treatment group has a faster healing time than the control group with a difference of 2.25 days for healing time. The results of this study are in line with Aisya (2018) which states that there is a significant difference in the duration of perineal wound healing between the group given boiled eggs and the group not given boiled eggs with a p-value of 0.0001. This is due to the role of proteins that influence and are needed in the inflammatory process, immunity, and the development of granulation tissue. The protein synthesized during the wound healing phase is collagen. The strength of collagen determines the strength of the wound skin according to the age of healing. Egg protein is rich in nutrients including niacin protein, riboflavin, chlorine, magnesium, potassium, and albumin, because of the animal protein content given as much as 9 grams per day so that it can form capillaries, fibroblast proliferation, proteoglycan synthesis, collagen synthesis and remodeling, wounds quickly, and due to the content contained in eggs, namely essential amino acids and B vitamins that are beneficial for muscle recovery. Accelerated healing of perineal sutures during

the puerperium is expected to prevent postpartum mothers from the danger of infection or physiological complaints, namely by increasing intake or high protein consumption (Aisya et al., 2018).

Infection can occur during the puerperium, one of which is caused by infection in the perineal wound. Postpartum infections that can occur as a result of complications of perineal wounds include metritis, endometritis, and even pelvic abscess. Slow handling of complications can cause death in postpartum mothers considering the physical condition of postpartum mothers is still weak (Sidabutar, 2013).

According to the theory Warsito (2015) the act of accelerating the healing of perineal wounds is able to prevent the mother from the danger of infection, namely by way of nutritional intake of foods that contain high protein. High protein foods can be obtained from eggs. Protein is found in the yolk and white of the egg. The nutritional content of whole boiled eggs contains more than 90% calcium and iron, one egg contains 6 grams of quality protein and essential amino acids. In this study boiled eggs and proven to heal perineal sutures in postpartum mothers or post partem mothers because the acceleration of perineal wound healing during the puerperium is highly expected to avoid postpartum mothers from the dangers of infection (Dewi, 2019).

This is in accordance with Walyani's (2015) theory, namely that protein fulfillment aims to help heal wounds in the birth canal that have stitches. The protein synthesized during the wound healing phase is collagen, lack of protein intake during the wound healing process can delay wound healing. One of the high protein foods that can be given is eggs. Protein from eggs is needed as a builder substance that forms the body's muscle tissue and accelerates the recovery of stitches on the perineum, it also contains choline which functions to repair damaged body cells so that new and healthy tissue will be more easily formed to replace damaged tissue (Walyani & Purwoastuti, 2015).

Protein deficiency can lead to failure of capillary formation, fibroblast proliferation, proteoglycan synthesis, collagen synthesis, and wound remodeling. Protein deficiency also has an effect on the immune system, with decreased leukocyte phagocytosis, and increased susceptibility to infection. Protein helps regenerate and build damaged cells. One source of protein-rich food is eggs. Eggs contain very high protein, the best digestibility value among other food ingredients with a digestibility value of 100% (Warsito et al., 2015).

The results of Purnani's research (2020) show that consuming egg whites is more effective and dries faster in healing perineal wounds than consumption of snakehead fish (Purnani, 2019). The results of Trianingsih's research (2018) showed that the length of time needed for perineal wound healing in postpartum women who consumed boiled eggs recovered the most within 7 days, while postpartum women who did not consume boiled eggs recovered more than 7 days. The difference in time required for postpartum women to heal perineal sutures who consumed boiled eggs was 1.35 days faster than mothers who did not consume boiled eggs, and experienced a significant difference in p value 0.000 (<0.05) (Trianingsih, Yenie, & S.P, 2018).

The consumption pattern of boiled egg white chicken is related to the healing rate of perineal sutures. Egg white protein is rich in nutrients such as niacin protein, riboflavin, chlorine, magnesium, potassium, sodium, ovalbumin. Protein can also increase the body's ability to fight infection and disease which can speed up healing during the puerperium (Nurhayati, Maulid, Maulidya, & Cikmah, 2020).

2 Conclusion and Suggestion

Giving boiled eggs is effective on the healing time of postpartum perineal wounds. Consuming 2 hard-boiled eggs per day for postpartum women with perineal wounds has been shown to accelerate the healing process of perineal wounds in postpartum women. Consuming 2 boiled eggs per day is recommended to postpartum mothers to speed up the healing process of perineal wounds

5. Acknowledgments

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