

The Effect of Consumption of Boiled Chicken Egg Whites in Postpartum Mothers on Healing of Perineal Wounds at TPMB Zubaedah and Usmalanah

Pengaruh Konsumsi Putih Telur Ayam Rebus pada Ibu Nifas terhadap Penyembuhan Luka Perineum di TPMB Zubaedah dan Usmalanah

Yetti Anggraini✉, Yuliawati, Ossy Aprillia Pratiwi

Metro Midwifery Department, Poltekkes Kemenkes Tanjung Karang, Lampung, Indonesia

Article Info

Received December 12, 2024,

Revised December 20, 2024,

Accepted December 26, 2024

Keywords:

Boiled Chicken Egg whites,
Healing of Perineal Wounds

Keywords:

Putih telur ayam rebus,
penyembuhan luka perineum

Corresponding Author:

✉ Yetti Anggraini

Phone: +6281272545499

Email: yettianggraini12@gmail.com



Abstract

Introduction: One of the causes of postpartum infection is injury to the perineum. Wounds in the perineum due to rupture or laceration are areas that are not easily dried. The incidence of perineal trauma incidents is estimated to be 80% in August in women who give birth vaginally. **Object:** The aim of this study was to determine the effect of consuming boiled chicken egg whites in postpartum mothers on the healing of perineal wounds. **Method:** This type of research is Quasi Experiment with a descriptive approach. posttest only group design. The population of this study was 44 respondents, a sample of 30 was obtained with 15 postpartum mothers who were intervened and 15 postpartum mothers who were used as controls using non-probability sampling techniques. The method of data collection used observation sheets and questionnaires. Univariate analysis uses the mean and bivariate analysis uses the test *shapiro wilk*. **Results:** The results of univariate analysis of 15 respondents obtained an average wound healing time consuming egg whites of 5.13 days with a standard deviation of 0.834 and an average wound healing time not consuming egg whites of 6.60 days with a standard deviation of 0.910. The results of statistical tests using the Wilcoxon test obtained a p value of 0.0005 if the p value is 0.005 which means H_a is accepted. **Conclusion:** there is an effect of consuming boiled chicken egg white on healing perineal wounds.

Abstrak

Pendahuluan: Salah satu penyebab infeksi pasca persalinan adalah perlukaan pada perineum. Luka pada perineum akibat ruptur atau laserasi merupakan daerah yang tidak mudah kering. Angka kejadian trauma perineum diperkirakan 80% pada bulan Agustus pada wanita yang melahirkan pervaginam. **Tujuan:** Tujuan penelitian ini adalah untuk mengetahui pengaruh konsumsi putih telur ayam rebus pada ibu nifas terhadap penyembuhan luka perineum. **Metode:** Jenis penelitian ini adalah Quasi Experiment dengan pendekatan deskriptif. posttest only group design. Populasi penelitian ini sebanyak 44 responden, diperoleh sampel sebanyak 30 dengan 15 ibu nifas yang diintervensi dan 15 ibu nifas yang dijadikan kontrol dengan menggunakan teknik non-probability sampling. Metode pengumpulan data menggunakan lembar observasi dan kuesioner. Analisis univariat menggunakan mean dan analisis bivariat menggunakan uji *hapiro wilk*. **Hasil:** Hasil analisis univariat terhadap 15 responden didapatkan rata-rata waktu penyembuhan luka mengonsumsi putih telur 5,13 hari dengan simpangan baku 0,834 dan rata-rata waktu penyembuhan luka tidak mengonsumsi putih telur 6,60 hari dengan simpangan baku 0,910. Hasil uji statistik menggunakan uji Wilcoxon didapatkan nilai p value sebesar 0,0005 jika nilai p sebesar 0,005 yang berarti H_a diterima. **Simpulan:** ada pengaruh mengonsumsi putih telur ayam rebus terhadap penyembuhan luka perineum.

Introduction

The postpartum period begins after the placenta is born and ends when the reproductive organs return to their pre-pregnancy state. The postpartum period or puerperium begins 2 hours after the placenta is born and lasts for 6 weeks (42 days). In Latin, this specific time after giving birth is called puerperium, the word puer means baby and parous means giving birth.

How to cite:



Anggraini, Yetti, Yuliawati, Ossy Aprillia Pratiwi. (2024). The Effect of Consumption of Boiled Chicken Egg Whites in Postpartum Mothers on Healing of Perineal Wounds at TPMB Zubaedah and Usmalanah. *Jurnal Kesehatan Metro Sai Wawai*. 17(2), 102-107. DOI: <https://doi.org/10.26630/jkmsw.v17i2.4984>

Published by Tanjung Karang Health Polytechnic, Indonesia. Copyright Holder ©Author(s)(2024).

[The Published Article](#) is Licensed Under a [Creative Commons Attribution-NonCommercial 4.0 International License](#).

So puerperium means the period after giving birth. Puerperium is the recovery period. Around 50% of maternal deaths occur in the first 24 hours postpartum, so quality postpartum care must be provided during that period to meet the needs of the mother and baby (Pitrianai and Andriani, 2014).

The number of Maternal Mortality Rate (MMR) in Lampung Province in 2019 is still relatively high. It was recorded that 110 mothers died (Ministry of Health of Lampung Province, 2019). The causes of MMR in Lampung Province were 110 people, including bleeding 29 (26%) cases, infection 3 (2%) cases, circulatory system disorders 4 (3%) cases, and others 42 (38%) cases (Health Profile of Lampung Province, 2019).

One of the causes of postpartum infection is injury to the perineum. Wounds in the perineum due to rupture or laceration are areas that are not easily dried. The incidence of perineal trauma is estimated to be 70% of women who give birth vaginally, more or less experiencing parietal trauma (Fatimah, & Lestari, 2019).

Based on data from the World Health Organization (WHO) in 2015 there were 2.7 million cases of perineal rupture in mothers giving birth, where this figure is estimated to reach 6.3 million in 2050 (Sigalingging, & Sikumbang, 2018). In Asia, perineal rupture is also a fairly common problem, 50% of perineal rupture incidents in the world occur in Asia. Perineal rupture in Indonesia found that out of a total of 1951 normal deliveries, 57% of mothers experienced perineal rupture, of which 28% were due to episiotomy and 29% were due to natural rupture (Santy et al., 2019).

Based on the results of a pre-survey conducted at PBM Zubaedah S.ST Bandar Lampung, Palapa, Tanjung Karang Pusat District, it was found that in June 2020 there were 17 deliveries with 11 experiencing perineal rupture (60%), in July 12 deliveries with 8 perineal ruptures (66%) and in August 10 deliveries with 12 perineal ruptures (83%).

Method

The design of this study was a posttest only group design, which grouped members of the experimental group and the control group. The first experimental or treatment group was postpartum mothers who experienced perineal wounds who were given boiled chicken egg whites. Meanwhile, the second or control group was postpartum mothers who experienced perineal wounds who were not given boiled chicken egg whites. This research design was conducted to determine the effect of consuming boiled chicken egg whites in postpartum mothers on the healing of perineal wounds.

1. Inclusion Criteria

- a. Postpartum mother from the first with perineal stitches
- b. Postpartum mothers with first and second degree perineal wounds
- c. Willing to be a research respondent

2. Exclusion criteria

- a. Postpartum mothers with diabetes mellitus
- b. Postpartum mothers with blood clotting disorders
- c. Postpartum mothers with perineal wounds grade III and IV
- d. postpartum mothers with allergies to chicken eggs will

The data collection method uses *posttest only group design*. namely this design groups members of the experimental group and the control group. A normality test is carried out first, if the data is normally distributed then the data analysis is carried out. *shapiro wilk*, the requirement of this test is if the data is normally distributed, both groups of data are

dependent. (interrelated/paired). If the data is not normally distributed, data analysis is carried out using the Wilcoxon test.

Results

Univariate Analysis

Univariate analysis was used to describe the average healing of perineal wounds in each group that consumed boiled chicken egg whites and those that did not consume boiled chicken egg whites. Based on data collection, the average (mean) was obtained as follows:

Table 1.
Average Perineal Wound Healing in the Intervention Group

	N	Min	Max	Mean	SD
Consumption of boiled chicken egg whites	15	4	7	5.13	0.834

Based on Table 1, it can be seen that the fastest healing of perineal wounds was on the 4th day. The longest healing of perineal wounds was on the 7th day. The average healing of perineal wounds that consumed boiled chicken egg whites was 5.13 days.

Table 2.
Average Perineal Wound Healing in the Control Group

	N	Min	Max	Mean	SD
Do not consume boiled chicken egg whites	15	5	8	6.60	0.910

Based on table 2, it is known that the fastest healing of perineal wounds in respondents who were not given intervention was on the 5th day. The longest healing of perineal wounds was on the 8th day. The average healing of perineal wounds that were not given intervention was 6.60 days.

Bivariate Analysis

To determine the effect of consuming boiled chicken egg whites on the healing of perineal wounds in postpartum mothers, statistical calculations were carried out using the Wilcoxon test by comparing the average healing of perineal wounds carried out by those who consumed boiled chicken egg whites and those who did not consume boiled chicken egg whites, the following results were obtained.

Table 3.
The Effect Of Consuming Boiled Chicken Egg Whites

Variables	N	Mean	P value
Do not consume boiled chicken egg whites	15	6.60	
Consumption of Boiled Chicken Egg Whites	15	5.13	0.005
Mean Difference		1.47	

Based on table 3, the results of the analysis using the Wilcoxon test showed that the difference in mean or average wound healing time was 1.47 (1 day), the results obtained for those given egg white and those not given egg white showed that the P value or sig value was $0.005 < \alpha (0.05)$ then H_a was accepted. So it can be concluded The effect of consuming boiled chicken egg whites in postpartum mothers on the healing of perineal wounds.

Discussion

The average healing rate for perineal wounds is when consuming boiled chicken egg whites

Based on the data obtained from 15 respondents who consumed boiled chicken egg whites, the fastest wound healing occurred on day 4, 20% for grade I, and day 5, 53%, day 6, 20%, and

the slowest on day 7 for grade II, 7%. Giving chicken egg whites to postpartum mothers who experienced perineal wounds by boiling and consuming them for 7 days, 14 eggs, showed that almost all respondents experienced accelerated healing of perineal wounds, which was less than 7 days. On the first day, the wound healing of each respondent was 100% less good, but on the fourth day, the wound healing of respondents who were in the intervention group or given boiled chicken egg whites was 80% and on the fifth day it was 26%, indicating that wound healing had begun to improve and there were signs of wound healing on the fourth day of the 15 respondents in the intervention group.

The results of the study (Santy, et al: 2020) the relationship between the administration of additional egg whites and the acceleration of healing of grade II perineal wounds in postpartum mothers at BPM Utin Mulia was carried out on 10 respondents in the intervention group and 10 respondents in the control group so that the research hypothesis was accepted, which means that there is a significant relationship between the administration of egg whites and healing of grade II perineal wounds in postpartum mothers at PMB Utin Mulia, Pontianak City. In this study, it was shown that on the fifth day, the number of respondents who experienced accelerated healing of grade II perineal wounds was 9 respondents (90%). And there was 1 respondent (10%) who experienced delayed healing of grade II perineal wounds on the fifth day.

The results of observations conducted on respondents who were given additional boiled chicken egg whites to be consumed 2 times a day for 7 weeks found that perineal wound healing improved, stitches did not look wet, wound union was good, there was a little redness but did not cause pain. This is evidenced by the presence of general factors that can affect wound healing, namely age. In children and adults, wounds heal faster than in the elderly. Meanwhile, at an age that has reached old age, the body is more often affected by chronic diseases, decreased liver function can also result in impaired synthesis of blood clotting factors, which results in wound healing in the elderly being disrupted and lasting longer. People who are elderly cannot tolerate stress such as tissue trauma or infection (Fatimah and Lestari, 2019).

Factor One of the factors that cause perineal rupture is the mother. Parity is the number of children born to a mother, either alive or dead. Parity has an influence on the incidence of perineal rupture. Mothers with a parity of one or primiparous mothers have a greater risk of experiencing perineal tears than mothers with more than one parity. This is because the birth canal has never been passed through by the baby's head, so the perineal muscles have not stretched (Fatimah and Lestari, 2019).

The average healing rate for perineal wounds is when consuming boiled chicken egg whites.

Based on the results of data obtained from 15 respondents who did not consume boiled chicken egg whites, the fastest wound healing occurred on the 5th day for grade I and the slowest on the 8th day for grade II. The results of the study that have been conducted include several characteristics of respondents including the age of giving egg whites and the duration of healing of perineal wounds. After conducting the study, the average age of respondents in the age range of less than 35 years was 26 respondents and more than 35 years was 4 respondents. This is in accordance with the conditions that influence the emergence of difficulties in pregnancy/childbirth "4 too" (Too young, too old, too often, too much) (Nurachma, 2019). One of the internal factors that affects wound healing is age, which is very

influential, this is due to poor blood supply, poor nutritional status or the presence of comorbidities, so that wound healing occurs faster at a young age (Fatimah and Lestari, 2019).

The results of the study (Santy, et al: 2020) the relationship between the provision of additional egg whites and the acceleration of healing of grade II perineal wounds in postpartum mothers at BPM Utin Mulia was carried out on 10 respondents in the intervention group and 10 respondents in the control group so that the research hypothesis was accepted, which means that there is a significant relationship between the provision of egg whites and healing of grade II perineal wounds in postpartum mothers at PMB Utin Mulia, Pontianak City. In this study, 10 respondents who were not given additional egg white consumption showed that on the fifth day, the number of respondents who experienced accelerated healing of grade II perineal wounds was 3 respondents (30%) and there were 7 respondents (70%) who experienced delayed healing of grade II perineal wounds on the fifth day.

The effect of consuming boiled chicken egg white in postpartum mothers on healing of perieuem wounds

Based on table 4, it shows that all respondents who have been given boiled chicken egg whites experienced accelerated healing of perineal wounds with the fastest wound healing on day 4 and the slowest on day 7 with the results of the Wilcoxon test obtained a p value of 0.005 so the p value of 0.005 < 0.05 which means H_a is accepted meaning there is an effect of consuming boiled chicken egg whites in postpartum mothers on perineal wound healing. While the acceleration of wound healing that did not consume boiled chicken egg whites healed the fastest on day 5 and the slowest on day 8.

The results of the study show that there is a correspondence between theory and facts in the field, where the fulfillment of nutritional needs required by postpartum mothers must contain protein (a source of building material) which is required for...growth and replace damaged or dead cells. One of the most complete sources of protein nutrients is found in eggs (Dwi, 2018).

Mother's knowledge about good and balanced nutrition plays an important role in general factors that influence the healing of perineum wounds. Wrong One of them is the protein content of egg whites which is useful for growth and replacing dead cells. The protein contained in egg whites is needed for growth and replacing damaged and dead cells. Protein from food must be converted into amino acids before being absorbed by intestinal mucosal cells and carried to the liver through the veins (Dwi, 2018).

The function of protein as growth and maintenance before cells can synthesize new proteins, all essential amino acids must be available. required and sufficient nitrogen or amino bonds (NH_2) for the formation of the necessary nonessential amino acids. The body is very efficient in maintaining existing proteins and reusing amino acids obtained from tissue breakdown to rebuild the same or other tissues (Almatsier, 2004).

Healing of perineal wounds can be influenced by adequate nutrition, cleanliness, rest, position, age, tissue handling, hemorrhage, hypovolemia, anemia, etc. Factors that influence healing of perineal wounds include: status nutrition, smoking, increasing age, obesity, diabetes mellitus (DM), corticosteroids, drugs, oxygen disturbances, infections, and wound stress according to Johnson and Taylor in (Fatimah and Lestari 2019).

In this study, researchers assume that boiled chicken egg whites consumed by postpartum mothers can help accelerate the healing process of perineal wounds. This is because the nutritional intake needed by postpartum mothers, for example protein, has an

important role in accelerating the healing process of perineal wounds. This method of consuming chicken egg whites is very effective for postpartum mothers, in addition, chicken eggs are also easily available in the market and are affordable.

Conclusions

Based on the results of research and discussion regarding the effect of consuming boiled chicken egg whites in postpartum mothers on the healing of perineal wounds at TPMB Zubaedah and Usmanah in Bandar Lampung City, it can be concluded that the average healing time for perineal wounds in postpartum mothers who consumed boiled chicken egg whites was 5.13 days.

The average healing time for perineal wounds in postpartum mothers who did not consume boiled chicken egg whites was 6.60 days. There is an effect of consuming boiled chicken egg whites in postpartum mothers on the healing of perineal wounds at TPMB Zubaedah.

Reference

- Anggraini, Yetti. (2010). *Asuhan Kebidanan Masa Nifas*. Yogyakarta: Rihama.
- Almatsier, Sunita. (2004). *Prinsip Dasar Ilmu Gizi*. Jakarta: Gramedia Pustaka Utama.
- Boyle. (2009). *Pemulihan Luka*. Jakarta: EGC.
- Fatimah, Lestari. (2019). *Pijat Perineum : Mengurangi Ruptur Perineum untuk Umum, Ibu hamil dan Mahasiswa*. Yogyakarta: Pustaka Baru Press.
- Pitriani, R., dan Andriani, R. (2014). *Panduan lengkap asuhan kebidanan ibu nifas normal (ASKEB III)*. Yogyakarta: Budi Utama.
- Prastowo, A. (2014). Keefektifan Ekstra Putih Telur terhadap Peningkatan Albumin dan Penurunan IL-1 β pada Pasien Tuberkulosis dengan Hipoalbuminemia. *Jurnal Gizi Klinik Indonesia*, 10 (3).
- Potter & Perry. (2005). *Fundamentals Of Nursing Fundamental Keperawatan : Konsep, Proses & Praktek*. Edisi 7. Jakarta : EGC
- Santy E., Putri T. E., Lepita. (2020). Hubungan Pemberian Tambahan Putih Telur Terhadap Percepatan Penyembuhan Luka Perineum derajat II pada ibu nifas di PMB Utin Mulia Tahun 2019. *Jurnal Kebidanan Khatulistiwa*, 6(1).
- Sigalingging, M., & Sikumbang, S. R. (2018). Faktor yang berhubungan dengan terjadinya rupture perineum pada ibu bersalin di rsu imelda pekerja indonesia medan. *Jurnal Bidan Komunitas*, 1(3), 161-171.
- <http://ejournal.helvetia.ac.id/index.php/jbk/article/view/3984>