

The Effect of Protein High Diet Consumption on Wound Healing in Mother Post Sectio Caesarea
in The Breath Space RSUD Kota Langsa Provinsi NAD in 2017

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Abstract

Childbirth at caesarean section is not an operation that is feared by many women today. Sectio caesarea is a way of giving birth to the fetus by making an incision in the uterine wall through the front wall of the abdomen. One of the factors of wound healing is the fulfillment of nutrients, especially protein. The purpose of this study was to determine the effect of consumption of high protein diet on wound healing in post sectio caesarea mothers in the postpartum room of Langsa City Hospital, NAD Province in 2017. This study uses a quasi-experimental study design, dividing respondents into 2, namely the intervention group and the control group. The population in this study were all patients post sectio caesarea in the postpartum room of Langsa City Hospital as many as 30 respondents. Samples were taken using consecutive sampling using checklists and questionnaires. The results of the study were analyzed using bivariate analysis with test normality and homogeneity and test nonparametric. From the results of the study it is known that from 30 respondents there were 15 respondents (30%) in the intervention group recovered, while there were 8 respondents (26.6%) recovered, while there were 7 respondents (23.3%) did not recover. The results of the t- Independent test analysis show p value = 0.004 < α . Based on the results of the study and discussion, it can be concluded that there is an effect of high protein diit on wound healing in mothers post sectio caesarea . It is recommended that patients pay more attention to the intake of nutritious foods for healing wounds, especially those with high protein content, so that they can improve body cells that are injured due to surgery more quickly by consuming cork fish.

Keywords: High Protein Diit, Wound Healing, Post Sectio Caesarea

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Introduction

Childbirth in caesarean section is not an operation that is feared by many women today, even now this medical action is a trend so that mothers do not feel pain in childbirth. But mothers forget the risks that might occur, namely if the surgical wound does not heal completely it will be at high risk for subsequent pregnancies. For wound healing post sectio caesarea, consumption of high protein diet can be an option. Protein is a food substance that is believed to repair damaged skin tissue. (1)

Sectio caesarea is no longer just a medical indication, but many non-medical factors can influence, for example economic factors, beliefs or customs regarding the date of birth of the child and others. In addition, pregnancies over the age of 35 years 3 times greater risk of undergoing labor Caesarean compared with age under 35 years. 1 Sectio caesarea is a surgery to give birth to a child through an incision in the abdominal wall and uterus. Childbirth with sectio caesarea risk of death 25 times greater and risk of infection 80 times higher than vaginal delivery. (2)

In addition to the risk of action, sectio caesarea itself affects the subsequent pregnancy because labor with a history of caesarean scars is a high birth rate. (3)

In the caesarean section process, it is clear that the patient is injured from surgery. Injuries are defined as the state of loss or interruption of network continuity. Injury or loss and damaged most of the body's tissues are common and widely experienced in daily life - hari. Luka bias caused by sharp or blunt force trauma, changes in temperature, chemicals, explosion or bite serangga. (4)

postoperative wound healing process sectio caesarea is the most important factor. Disruption of post-surgical wound healing process caused by inadequate nutrition will cause stress to experience during healing, circulatory disorders and metabolic changes that can increase the risk of wound healing delay. (5)

Nutritional disorders, especially lack of protein intake in post sectio caesarea patients is a problem that very often arises, both patients who are found in the hospital and who are undergoing outpatient care. High protein diets in post sectio caesarea are factors that can affect the wound healing process. (6)

Protein is one component of a balanced diet and the body uses it to build and repair

damaged tissue. It is also needed by the body to produce enzymes and other body chemicals. Writing experts also stated about the benefits of useful proteins to help with wound healing. Consuming protein-rich foods also increases the prevention of infection. Research has also shown that a person who is injured requires a higher level of protein than a healthy person. (7)

From the research of Ficus Riza Febriyanto, entitled "The Effect of High Protein Diit on Wound Healing Process in Sectio Caesarea Post Operations in Puerperal Room in Balung Jember Hospital 2014 " Parametric statistical test results using the Independent t-test showed the mean score in the intervention group was 7.73 and the control group was 8.80. With a correction at $\alpha = 0.05$, P value = 0.03, because $P < \alpha$, the result is meaningful. Statistical assessment hypothesis (H_i) is accepted, meaning that there is an effect of giving high protein diit to wound healing in sectio ceasarea postoperative patients in postpartum RSD Balung Jember.(8)

According to the World Health Organization (WHO) in 2011 reported incidence of cesaerea section increased 5 times compared previous years. The average standard of cesaerea sectio in a country is around 5-15% per 1000 births in the world, government hospitals average 11% while in private hospitals can be more than 30% (gibbons, 2010). The number of caesarean section in the UK is around 29.1% per 1000 births in 2010. Demand for caesarean section in a number of developing countries has increased rapidly every year. (9)

The incidence and mortality of caesarean section throughout the world has increased over the past 5 years. In the United States very 10 women give birth every year have undergone caesarean section. In Southeast Asia the number of cesarean section was 9550 cases per 100,000 cases in 2012. The incidence of caesarean section in Indonesia according to national survey data in 2012 was 912,000 of 4,039,000 deliveries or about 22.8% of all deliveries. (10)

Cases of SC in Nanggroe Aceh Darussalam (NAD) 23.6% in 2012. This indicates that the rate of delivery with SC in NAD is still high. RSUDZA Banda Aceh in 2015. Pregnant women who gave birth to SC at Banda Aceh Hospital were 13.90% -41.30% due to previous SC history, dystocia at 6.52%, placenta previa at 4.35%, KPD at 30.43% and PEB amounted to 23.91% .(11)

Results of the initial survey conducted in the Midwifery room of the Langsa Regional General Hospital by obtaining data from the medical record book of all patients who visited in the January-June 2017 period, which contained 220 patients post sectio caesarea from 722 patients treated in the room. There were secondary cases of heating due to wound infection post

5 sectio caesarea as many as 5 patients. When conducting a preliminary survey researchers conducted interviews with midwives who were serving in the postpartum room in Langsa City Hospital, from the results of their interviews stated that there were several patients who experienced wet wounds.

Handling after getting the case the patient is only asked to eat boiled chicken eggs, by consuming the egg whites as often as possible, other than that the patient is asked to control the wound on day 7 to practice the obgyn doctor who handles it. Wet wound cases were not found in medical record data, because they did not receive further intervention.

However, surgical wounds that often occur in mothers who experience Diabetes Mellitus (DM) and receive follow-up such as surgical wound reparation are found in medical record data. And in the medical records that researchers have seen, there are 4 secondary cases of heating in patients post sectio caesarea who have infections in the surgical wound.

Method

This study uses a Quasi experiment study design. Quasi experiment is an experiment that has treatments, outcome measures and experimental units but does not use random placement. In this study using a quasi experiment with the post test only with control group method. The purpose of this study consists of two groups, namely the intervention group and the control group. The research method used in this study is the observation method with a prospective approach. Prospective approach is research conducted in the form of observations of events that have not yet and will occur (Research follow-up) carried out once or more.²⁵ The

location of this study was carried out in the Puerperal Room of Langsa City Hospital, having the address JL.Ahmad Yani No.1, Gampong Jawa, Langsa Kota sub-district, Langsa City, Aceh Province. The reason for taking the research location was because Kota Langsa Hospital was a referral hospital and a health service center for Langsa City residents.

Population is the whole object of the study to be studied is the source of the data that will be needed in the study in accordance with this, the population in this study were post section caesarea patients in the Nifas Room Langsa City Hospital as many as 30 respondents.

The sample is part or all of the population determines the size of the sample. Sampling in this study used a Non Random Sampling technique, namely consecutive sampling with a ratio of

1: 1 between the control group and the intervention group totaling 30 respondents. In consecutive sampling, every patient who fulfilled the criteria was research included in the study for a certain period of time, so that the required number of patients was fulfilled.

The inclusion criteria in this study were as follows: Patients post section Ceaserea day 1 in Nifas Room Langsa City Hospital, No have a history of DM (Diabetes Mellitus), Age 20-35 years.

The collected data is then processed and analyzed using a computer. The analysis was used to see the associated risk factors (independent variables) with the incidence of breast cancer (dependent variable) by using chi-square statistical test with a 95% confidence level ($\alpha = 0.05$).

Data analysis used univariate (frequency distribution), bivariate (Chi-Square) analysis.

Results

Analysis Univariat

Table 1.
Analysis Univariat

Variable	Group I intervene		Group control	
	N	Percentage	N	Percentage
Age				
20-25 years	3	20	5	30
26-30 years	8	53.3	6	40
31-35 years	4	26.7	5	30
Consumption of high protein diit	Group I intervene		Group control	
	N	Percentage	N	Percentage
Consumption	15	100	6	40
Not consumption	0	0	9	60
Consumption of high protein diit	Group I intervene		Group control	
	N	Percentage	N	Percentage
Consumption	15	100	6	40
Not consumption	0	0	9	60

From the table above it can be seen that out of 30 respondents, the majority of the age in the intervention group was 26-30 years as many as 8 (53.3) respondents and the majority in the control group was 26-30 years as many as 6 (40%) respondents . From the table above it can be seen that out of 30 respondents, the majority of consumption of high-protein diit in the intervention group was consumption of 15 (100%) respondents and the majority in the control

group were not consumed as many as 9 (60%) respondents. Based on the data from the table above it can be seen that from 30 post sc respondents, the wound was not healed from the control group as many as 7 people (46.6%) and from the intervention group as many as 0 people (0%), and whose wounds healed from the control group as many as 8 people (53.4%) and from the intervention group as many as 15 people (100%).

Analysis Bivariate

Table 2
Analysis Bivariate

Diet	Wound healing		
	Mean	Sum Rank	p
Control	15,93	134	0,000
Intervention	19,33	331	

Based on bivariate analysis using Independent sample t-test, the average number of control group scores was 15.93 and the intervention was 19.33 with the probability value (p) = 0.000 as shown in table 4.3. Therefore, $p < 0.05$, it can be concluded that there is a significant difference in the mean healing rate of post sc wound in both control and intervention groups.

Discussion

Consumption of a High Protein Diet in the Puerperal Room of Langsa City Hospital in 2017

These results are in line with the researchers' expectations, where all respondents in the intervention group consumed high protein diet. Researchers present food intake according to the presentation table. 2 cork fish and 2 boiled chicken eggs are a source of protein.

Of the various articles that have investigators read and one of the studies on catfish in that k andungan get fish protein cork 25.5% more high from fish milkfish (20.0%), fish mas (16.0%), fish snapper (20.0%), or fish sardines (2,1,1%). Amazingly, fish cork this very rich going to albumin, wrong one important protein for body human. Albumin is needed body humans, especially in process healing wound.

This is in line with research conducted by Prof. Nurpudji from University Hasanuddin, Makassar, giving 2 tails fish cork cook increase their albumin to be normal. Giving extra fish cork for 10-14 days show increased albumin plus deep zinc minerals (Zn) body fish cork amounting to 1.7412 mg / 100g of meat this is what helps process healing wound more fast.

Eggs are one of the food ingredients for animal protein sources that contain protein, fat, vitamins and minerals, so that eggs have good benefits in wound healing. To increase albumin levels in the blood, one of them is by giving high protein oral supplements in the form of egg white. Albumin is the most protein in plasma that plays a role in the process of healing the disease and recovery after surgery. (10)

According to the researchers, the entire intervention group consumed high-protein diet because the presentation of the intake was provided, and all respondents obeyed the researchers' explanation of the benefits of high consumption of protein to wound healing. While 6 (40%) of respondents even though they did not get treatment, they consumed high protein diet. From the observations of patients in the control group received intake from the family in the form of 2x a day boiled eggs, bacem tempeh, and tofu.

Wound Healing For Mothers Post Sectio Ceaserea In Puerperal Rooms In Puerperal Rooms Of Langsa City Hospital In 2017

This result is in line with Dahrul Munira's study in 2016 that there were differences in the provision of high protein nutrition to wound healing in the intervention group was 10.467 while in the control group it was 7.934 with a difference of 2.534.

One factor that accelerates wound healing is the fulfillment of nutrients. On healing wound needs will nutrition increase along with with physiological stress that causes protein deficiency, poor nutrition could inhibit synthesis collagen and happen decrease function leukocytes. Protein is a food substance that functions as a deterrent and repair of skin tissue that is injured. (8)

According to researchers, consumption of high-protein diet is an effort that can be done to accelerate wound healing. This is evident from the results of univariate wound healing, where the majority of respondents or the entire respondents were 15 respondents (30%) in the intervention group recovered. While in the control group there were 7 respondents (23.3%) did not recover or the wound was not dry.

The Effect of High Protein Diet Consumption on Wound Healing After Post Sectio Ceaserea Surgery in Puerperal Room of Langsa City Hospital in 2017

The results of this study are in line with the study of Ficus Riza Feriyanto in 2014. The parametric test subjects used independent tests showed the mean score in the intervention group was 7.73 and the control group was 8.80. By choosing $\alpha = 0.05$, the value of p value = 0.03, because $p < \alpha$, the result is meaningful.

Process healing wound post surgery section caesarea is factor most important. Disturbed process healing wound post surgery in the changes are application- nutrients that don't adequate will cause wound experience stress during time healing, interference circulation and change metabolism that can increase risk it's too late healing wound.

Research Silalahi J dith Title Nutrition Improvement Efforts in Post Sectio Caesarea Patients in Rsu Assalam Gemolong. hasi 1 study showed the mother post sectio caesarea mengalami nutrition disorders: less nutritional needs of the body's need for pain caused by surgery and intake of nutrients are lacking. The authors intervene include: assess nutritional status, teach relaxation techniques, encourage eating small portions but often, give a clean environment, serve food in warm conditions and attractive packaging, collaboration with nutritionists, collaboration in analgesic administration. After the intervention was carried out for 2 days, nutrition evaluation was fulfilled. Conclusions of the study, the importance of improving nutrition in mothers post partum section caesarea to carry out activities, metabolism, reserves in the body, accelerate wound healing and breast milk production process. (12)

Interference nutrition (nutritional disorder) especially lack of protein intake on patient post sectio caesarea is issue very often appears, fine patients who are found at home sick or who undergo care the road. Diit high protein on post section cesarea is factors that can influence process healing wound.

Research Hidayati SN Relationship of Diet Pattern with Post Op Sectio Caesarean Wound Healing in RSUD dr. Soewondo Kendal Year 2016. The results of this study indicate that there is a significant relationship between dietary habits and wound healing post op Sectio Caesarea (SC). Postpartum mothers are expected to be able to consume a balanced nutritious and adequate dose and not to abstain from eating, unless there is an allergic to certain foods, so that the wound healing process of postoperative Caesarea (SC) is fast and normal. (13)

Protein is one component of a balanced diet and the body uses it to build and repair damaged tissue. It is also needed by the body to produce enzymes and other body chemicals.

Writing experts also stated about the benefits of useful proteins to help with wound healing. Consuming protein-rich foods also increases the prevention of infection. Research has also shown that someone who is injured requires a higher level of protein than a healthy person. (14)

According to the researchers, based on the identification of wound healing in the intervention group that was given extra cork fish 2 times a day plus the provision of boiled chicken eggs 2 eggs a day. Where both of these food ingredients contain high protein plus cork fish as one of the food sources of albumin. Albumin is a protein substance that plays a role in the process of wound healing in surgical operations. So that all respondents in the intervention group were 15 respondents recovered. (15)

While in the control group, based on identification there were 8 respondents who recovered this because the nutritional needs of the respondents were fulfilled during pregnancy, so that during the puerperium did not interfere with the wound healing process.

Conclusions and Recommendations

Sectio caesarea is a surgery to give birth to a child through an incision in the abdominal wall and uterus. Childbirth with sectio caesarea risk of death 25 times greater and risk of infection 80 times higher than vaginal delivery. Sectio caesarea itself affects the next pregnancy because of labor with a history of former cesarean section is a high birth rate. This study uses a quasi-experimental study design, dividing respondents into 2, namely the intervention group and the control group. The population in this study were all patients post sectio caesarea in the postpartum room of Langsa City Hospital as many as 30 respondents. Samples were taken using consecutive sampling using checklists and questionnaires. These results indicate that there is an effect of high diit protein on wound healing. Health Workers. Expected to nursing staff to use cork fish as a diet therapy for patients post sectio caesarea and give promotion to patient for pay attention to the intake of nutritious foods for the healing process of wounds, especially those with high protein content, so that it can more quickly repair body cells that are injured due to surgery one of them by consuming cork fish.

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REFERENCES

1. Dewi ASS. Efektifitas Relaksasi Benson Terhadap Penurunan Intensitas Nyeri Luka Post Seksio Sesaria. *COPING (Community Publ Nursing)*. 2015;3(1).
2. Danefi T, Agustini F. Hubungan Mobilisasi Ibu Post SC (Sectio Caesarea) dengan Penyembuhan Luka Operasi di Ruang 1 RSUD Dr. Soekardjo Kota Tasikmalaya Tahun 2015. *J Bidan*. 2016;2(1).
3. Per-angin N, Isnaniah I, Rizani A. Prosespenyembuhan Luka Post Operasi Sectio Caesariadi Rsd Ratu Zalecha Martapura Tahun 2013. *J Skala Kesehat*. 2014;5(1).
4. Betty Rahayuningsih F. Hubungan tingkat kepatuhan pelaksanaan protap perawatan luka dengan kejadian infeksi luka post sectio caesarea (sc) di ruang mawar i rsud dr. Moewardi surakarta. 2008;
5. Nurani D, Keintjem F, Losu FN. Faktor-Faktor Yang Berhubungan Dengan Proses Penyembuhan Luka Post Sectio Caesarea. *JIDAN (Jurnal Ilm Bidan)*. 2015;3(1):1–9.
6. Puspitasari HA, Sumarsih T. Faktor-faktor yang mempengaruhi Penyembuhan Luka Post Operasi Sectio Caesarea (SC). *J Ilm Kesehat Keperawatan*. 2011;7(1).
7. Purwaningsih E, Mawarti D. Hubungan konsumsi makanan protein hewani pada ibu nifas dengan penyembuhan luka perineum di wilayah kerja puskesmas klaten tengah kabupaten klaten. *Involusi J Ilmu Kebidanan (Journal Midwifery Sci)*. 2016;7(12).
8. Febriano, Riza. Faktor Yang Berhubungan Dengan Penyembuhan Luka Post Sectio Caesarea Di Rsd Sawerigading Palopo. *Voice of Midwifery*. 2018;7(9):66–72.
9. Engram B. Rencana asuhan keperawatan medikal bedah. In *EGC*; 1998.
10. Sumanto A. Tetap Langsing dan Sehat dengan Terapi Diet. *AgroMedia*; 2009.
11. Fitri E. Faktor-faktor yang Mempengaruhi Lamanya Penyembuhan Luka Perineum pada Ibu Nifas di Rumah Sakit Umum dr. Zainoel Abidin BANDA Aceh Tahun 2013. Skripsi, Sekol Tinggi Ilmu Kesehat U'budiyah Progr Stud Diploma Iv Kebidanan Banda Aceh. 2013;
12. Silalahi J. Makanan fungsional. *Kanisius*; 2006.
13. Hidayati SN, Widyastuti YP, Rejeki S. HUBUNGAN POLA MAKAN dengan penyembuhan luka post op sectio caesarea di rsud dr. Soewondo kendal.
14. Kusumaningrum NSD, Kusuma H. *Adult Nursing in Practice: Using Evidence in Care*. Program Studi Ilmu Keperawatan FK UNDIP; 2013.
15. Said S, Taslim NA, Bahar B. *Gizi dan Penyembuhan Luka*. 2012;