NURSING CARE FOR POST-CESAREAN WOUND DEHISCENCE AND URINARY RETENTION ON POD 19

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Abstract

The postoperative period following a cesarean section (CS) is a critical phase of physical and psychological recovery and carries the risk of complications such as wound dehiscence and urinary retention. If not properly managed, these complications may lead to prolonged pain, extended treatment duration, increased risk of infection, and long-term bladder dysfunction. This case report aims to identify the contributing factors to post-CS complications and describe nursing interventions that may prevent further deterioration. A descriptive observational design with a nursing care approach was used, conducted from 17-23 October 2024. The subject was a post CS POD 19 mother with a history of IUFD with complications of wound dehiscence and urine retention. Assessment findings revealed inadequate nutritional intake, insufficient early mobilization, and poor medication adherence, all of which contributed to the complications. Additionally, the use of honey as a natural antimicrobial showed potential benefits in supporting wound healing. These findings highlight that improper management may prolong treatment and increase the likelihood of additional complications. Therefore, comprehensive nursing care, continuous monitoring, and effective patient education are essential to improve adherence and support optimal recovery.

Keywords: Cesarean section, postoperative complications, postpartum women, urinary retention, wound dehiscence.

INTRODUCTION

Childbirth by operation, Cesarean section (CS), continues to show an increasing trend globally. The World Health Organization in the Global Survey on Maternal and Perinatal Health in 2021 shows that the birth rate by CS increased by 46.1%. In Indonesia, Riskesdas in 2021 in Komarijah et al., (2023) noted that 17.6% of all births are carried out through CS. This high figure is influenced by various factors, including the proportion of elective surgeries, which reaches 7% (Masitoh et al., 2021 in Susilawati et al., 2023), as well as social, economic, health system, and maternal conditions such as vulnerable age (more than 35 years), nulliparity, height less than 145 cm, gestational age of more than 42 weeks, complications of childbirth, and a history of complications during pregnancy and childbirth (Yunitawati et al., 2024). The high incidence of childbirth CS can have an impact on postpartum care.

An increase in the number of deliveries through CS has an impact on increasing the need for care in the postpartum period, considering that this procedure is included in the category of major surgery. The postpartum period is a recovery period, in which there is an anatomical and physiological change from the pregnancy period back to its pre-pregnancy state, which generally lasts for six weeks after childbirth. Every mother has a different postpartum experience, depending on her physical and psychological condition. Some of the problems that may occur in the postpartum period include postpartum bleeding, sleep disorders, emotional problems, urinary and fecal elimination disorders, difficulties in self-care, and pain (Duran & Vural, 2023). In mothers who are undergoing CS, short-term complications such as bleeding and wound infections can prolong the recovery period. In addition, postoperative pain and infection may occur during the postoperative treatment period, CS (Aljohani et al., 2021). Kayembe & Kapuku, (2024), identify five factors that cause postoperative complications in CS, namely long labor, poor patient hygiene, uterine overdistension before surgery CS, multiparity, and emergency CS.

One of the possible complications in post-operative mother CS is urine retention. Several studies show that urine retention is a postpartum complication that can occur with varying incidence, which is 11.5% in 489 pregnant women who underwent CS (Liang et al., 2015), 2.2% of 8,992 postpartum respondents (Hosakoppal et al., 2022), and 0.20% of 2,397,168 patients based on data National Inpatient Sample (NIS) (Zhang et al., 2025). The causes include the use of epidural anesthesia, the duration of catheterization exceeding 16 hours, and other multifactorial influences (Hoskins et al., 2024; Liang et al., 2015; Hosakoppal et al., 2022). If not treated properly, postpartum urine retention can lead to bladder dysfunction,

urinary tract infections (UTIs), and long-term risks in the form of spontaneous urinary incontinence.

In addition, surgical wounds and CS are prone to dehydration or re-opening wounds. Although the wound healing process consists of the phases of inflammation, proliferation, and maturation, it is still complex and susceptible to disruption. Several studies have shown that postoperative wound degeneration of obstetrics and gynecology is a common complication, with an incidence varying between 1.45% to 29%; Falola et al., (2018) reported an incidence rate of between 3.6% and 29% accompanied by prolonged wound healing and continuous drainage, Metgud et al., (2020) found 3.05% of wound degeneration cases from 3,172 respondents with the majority occurring after midwifery surgery, Carbonnel et al., (2021) recorded 4.4% of wound complications in post patients CS and Adha et al., (2021) reported 1.45% of wound degeneration cases from 1,373 procedures CS in Bandung. Factors such as nutritional status, early mobilization, hemoglobin levels, and hypoalbuminemia are known to affect the speed and quality of wound healing (Kurnia et al., 2024; Majhi, 2019).

Wound dehiscence and urine retention are two complications that can occur in postoperative mothers after CS and have a significant impact on the mother's recovery process. These complications can cause pain, sleep disturbances, limited mobility, and increased length of hospitalization. Research by Zhang et al., (2025) shows that patients who have post-traumatic stress disorder CS tend to have a longer duration of hospitalization, higher cost of care, and a greater incidence of advanced complications. The extension of the duration of the hospitalization also adds to the emotional and financial burden on the family. Delayed physical recovery can inhibit the mother's role in infant care and household activities, increasing the risk of stress and psychosocial disorders in the family. An inhibited recovery process can delay exclusive breastfeeding as well as interfere with the initial interaction between mother and baby, which can ultimately lead to low milk production (Villers, 2020; Nuraeni & Widiasih, 2024).

Considering the various risk factors and impacts of complications such as urinary retention and wound dehiscence, further exploration is needed to understand the causes and determine the most appropriate intervention. In addition, it is important to assess the suitability of the intervention with the theory as well as its benefits to the patient's recovery, especially in cases with an extended treatment period. Therefore, this case report aims to identify the contributing factors to post-CS as well as interventions that can be applied to prevent further

complications, focusing on one patient who underwent CS on day 19 with a history of IUFD who experienced wound dehiscence and urinary retention.

METHODS

This study used a descriptive observational design in the form of a case report with a nursing care approach. This case report was conducted in a postpartum inpatient unit of a hospital in Garut Regency from October 17-23, 2024. The subject was a postpartum mother on POD 19 following a CS, with a history of IUFD and complications of Wound Dehiscence and Urinary Retention. Data were collected through observation, physical examination, and interviews, and were clarified with the attending nurse and by reviewing the client's medical records. Identified problems were analyzed to establish nursing diagnoses, develop a nursing care plan, and determine appropriate interventions. All actions were evaluated using the SOAP format and presented in the case report. This case report was conducted after obtaining permission from the ward nurse and informed consent from the patient and her family. A complete explanation regarding study objectives, respondent rights and responsibilities, and data confidentiality was provided. After the explanation, the client signed the consent form.

RESULTS

Case Description

Mrs. A, 21 years old, underwent a cesarean section (CS) under regional anesthesia due to IUFD following prolonged labor, with 12 hours of ruptured amniotic membrane, stalled cervical dilation at 7-8 cm, and a partograph crossing the action line. Fetal heart tones became unclear at 08:15, and an ultrasound at 08:20 confirmed IUFD. The client delivered a male IUFD infant (3,400 g; 45 cm) on September 28, 2024. The client returned on POD 10 with wound dehiscence and urinary retention.

On POD 19 (October 17), the client reported abdominal pain at the CS and secondary suturing site with an intensity of 3/10, worsening with movement. Vital signs showed hypotension (80/60 mmHg), pulse 81 x/min, RR 21 x/min, SpO2 98%, and temperature 36.1°C. Physical examination revealed anemia (pale conjunctiva), minimal lochia alba, TFU not palpable, and a urinary catheter in place for 10 days, although the client had begun to void spontaneously without pain. Nutritional intake was inadequate, with only 40-50% of meals consumed. Wound assessment indicated moderate infection with a REEDA score of 8, characterized by mild erythema, edema, ecchymosis, purulent discharge, and partial wound dehiscence at the CS and secondary suturing site. Laboratory findings showed elevated

leukocytes (14,280/mm3), low Hb (8.1 g/dL), and low albumin (2.35 g/dL), contributing to delayed wound healing.

The client presented with nursing problems, including Impaired Skin Integrity, Infection, and Ineffective Peripheral Perfusion related to anemia, inadequate nutrition, and limited activity. The client received wound care three times daily using NaCl and Oxoferin, pharmacological therapy including Cefadroxil, Metronidazole, and Mefenamic Acid, along with guidance on deep-breathing techniques, mobilization encouragement, and nutritional support. Despite these interventions, the wound continued to show purulent drainage and partial dehiscence. Psychologically, the client appeared quiet and minimally expressive; although she reported having accepted the loss of her baby and feeling supported by her husband and family, she experienced sadness due to strained relations with her in-laws. This condition suggested a risk for the nursing problem of Grieving.

On POD 20-21, the client remained hemodynamically stable (POD 20: 120/70 mmHg, pulse 86 x/min; POD 21: 100/80 mmHg, pulse 105 x/min), was able to urinate independently with clear urine, and showed no vaginal bleeding or breast pain, with a soft, non-tender abdomen and no palpable TFU. The post-CS and secondary suturing wounds were still partially open with yellowish discharge, showing moderate improvement from a REEDA score of 7 to 6; the client continued to feel pain during wound care but applied deep-breathing techniques and occasionally requested short breaks. Interventions included routine wound care, administration of Cefadroxil, Metronidazole, Clindamycin, Mefenamic Acid, and VIP albumin, along with nutritional support, which she gradually improved on despite initially low appetite. Psychologically, the client remained quiet and grieving on POD 20 but was more communicative on POD 21, sharing stories about her family and expressing a desire to go home.

On POD 22, the client reported persistent pain at a scale of 4/10, accompanied by abdominal bloating and tenderness, with vital signs showing BP 90/70 mmHg, pulse 126 x/min, temperature 36.5°C, and SpO2 96%. The wound condition worsened to a REEDA score of 10, marked by mild central redness, edema, ecchymosis, cloudy yellow-white discharge, and partial opening of both the CS and secondary suturing sites; during wound care, the client grimaced and cried from pain. Although prescribed Mefenamic Acid, Metronidazole, and Clindamycin, she was not taking the medications until nurses assumed, even direct supervision. The client's nutritional intake decreased to only 30-40% of meals due to discomfort, and the

client was reluctant to perform early mobilization, often remaining quiet and withdrawn, requiring repeated reminders from the nursing staff.

Picture 1. Wound Condition of POD 22

POD 23, the clients continued to experience postoperative wound pain, with mild abdominal bloating, minimal vaginal bleeding (±20 cc), and stable vital signs (BP 110/70 mmHg, pulse 77 x/min). The wound remained wet and open with seepage and a REEDA score of 10, indicating moderate infection. Wound care with NaCl and Oxoferin, along with Cefadroxil, Mefenamic Acid, and Clindamycin, gradual mobilization, nutritional encouragement, and two units of blood transfusion were provided; however, the client appeared withdrawn and responded briefly during interaction. By POD 24, the client expressed growing worry about the wound reopening and slow healing, with pain rated 5/10. Examination showed stable vitals and a REEDA score of 11, reflecting worsening infection; wound care continued, and therapy was escalated to IV Meropenem and Ampicillin, although dietary intake remained around 50%. On POD 25, the client still reported wound pain (4/10) with stable abdominal findings but persistent severe wound infection (REEDA 11) and low hemoglobin (9.2 g/dL) despite prior transfusion. Bandage changes were increased to three times daily, with morning dressing using NaCl and honey as an alternative dressing, while IV Meropenem, Ampicillin, VIP albumin, and nutritional support were maintained to promote healing.

Picture 2. Wound Condition of POD 25

Following the persistent wound issues noted on POD 25, treatment continued to prioritize wound healing through daily morning dressing changes using NaCl and *nusantara* honey, supported by VIP albumin due to the client's low albumin level (3.2 g/dL), with NPWT planned once the wound condition improved. After six sessions of honey-based wound care, the wound began to dry with no pus, blood, or serous discharge, allowing NPWT to be initiated on POD 32 (October 30), after which the client was transferred to the surgical department. Although healing progressed, necrotic tissue later appeared around the wound, necessitating Necrotomy Debridement on November 5. The client's wound condition improved significantly thereafter, and she was discharged with a well-healed wound and scheduled for follow-up on November 14. Client was advised to monitor for signs of infection, maintain proper wound care at home or at the health facility, ensure adequate nutrition, and continue gradual mobilization.

DISCUSSION

Postpartum Period Adaptation

In the case of postpartum mothers with POD 19, data were obtained from of vital signs showing low blood pressure (80/60 mmHg), pulse of 81 x/minute, respiration of 21 x/minute, oxygen saturation of 98%, and temperature of 36.1 °C. In a book published online by Chauhan, G., & Tadi. P., (2022), it is explains that under normal conditions, the client's vital signs can be increased due to the pain felt and feelings of joy after childbirth. The increase in vital signs is said to be normal when within normal limits and gradually improves after 2-3 days postpartum. As for when there is a significant decrease (>20% below the normal limit) in blood pressure, it can indicate signs of postpartum bleeding or septic shock. In this case, the client's blood pressure is relatively low, which is 80/60 mmHg. When studied, the client said that

indeed his blood pressure is always low and in the range of 80-90 mmHg. Low blood pressure in the client can also be a sign of bleeding and infection in the client's wound.

The results of the physical examination showed that the anemic conjunctivae were supported by the results of the hematology examination, namely Hb 8.1 g/dL (low), and after receiving blood transfusions on POD 23, as many as 2 pumpkins, Hb rose to 9.2 g/dL. Postpartum anemia may occur caused to various factors, Habtamu et al., (2025) the prevalence of postpartum anemia after surgery, CS 18.9%, which can be caused by pre-natal anemia, medical complications during pregnancy, and CS indications such as malpresentation. Moreover, Neef et al., (2024) state that deficiencies in iron, folic acid, and vitamin B12 during pregnancy can lead to anemia. When the study was carried out, Mrs. A's client said that she did not have an appetite because of the pain felt, eating only 40-50% of the food provided by the hospital (rice, eggs/fish, vegetables, fruits), besides that the mother also did not get additional supplementation. Mothers who do not get iron supplements or have an unbalanced diet are at higher risk of developing postpartum anemia (Lakew et al., 2024).

The client complained that it was difficult to urinate on POD 10, so a urine catheter was installed to remove retained urine (retention urine). Physiological changes generally, the bladder wall may become edematous and hyperemic, and the bladder may be overinflated without the desire to urinate. Urine retention may occur in the first few days after delivery, resulting from relaxation of the abdominal muscles, pelvic floor muscle tone, bladder atonia, urethral compression by edema or hematoma, and reflex inhibition of urination due to genitourinary trauma. During pregnancy, the compressive force of the uterine gravid and the decrease in ureteral tone, peristalsis, and contraction pressure caused by progesterone cause the dilation of the calyxal system, thereby increasing the volume of the kidneys to 30% from pre-pregnancy state, this condition has the potential to cause urinary retention and an increased risk of developing urinary tract infections.

In addition to the mother's physical condition, psychological conditions can also undergo changes in postpartum mothers, especially in postpartum mothers with IUFD. The client experienced IUFD in her first child. The client said that at first, the client did not know that her child was born still; the client only found out that the baby died after being taken to the postpartum inpatient room after a CS. The client did not tell his experience too openly; the client only mentioned that at first he was very sad and cried, especially because the client could not follow the funeral process of his first child because he had to be treated first. The client said he was sincere and did not blame anyone for the incident that happened to him. However,

the client seems not very open, the client only answers questions briefly, and seems to be more silent and daydreaming. This can indicate an unfinished grieving process.

The unfinished grieving process due to the loss of her first child, coupled with the lack of implementation of identity and maternal roles, can bring deep sadness to clients. In addition, it can have an impact on emotional and social problems. This is by research conducted by Sinaga et al., (2021), where mothers with IUFD face a risk of depression, anxiety, sadness, and a sense of loss. Moreover, Rent et al., (2024) identify that the IUFD incident negatively impacts the woman, who at high risk of experiencing abuse and neglect after the incident, and is at high risk of physical and psychological harm. Thus, mental support is needed from family, relatives, friends, and caregivers. The presence and support of those closest to you can help the success of the recovery process and improve the well-being of the mother after childbirth (Apriyanti et al., 2021).

Urinary Retention on Post-Cesarean Section

In these cases, the client has an extended or long history of labor. Prolonged labor can increase the risk of postpartum urinary retention. The phase II process that lasts more than 1 hour can put prolonged pressure on the muscles and plexuses of the pelvic floor nerve, including the detrusor nerve, which can cause bladder emptying disorders. Research conducted by Septiani et al., (2021), shows that out of a total of 34 respondents who experienced extension period II, as many as 21 respondents (62.8%) experienced urine retention. In addition, research conducted by Hapitria, (2024), also reported cases of urine retention since 3 days after CS, which occurred in mothers with a duration of delivery in period I > 12 hours and period II > 1 hour.

After returning home (POD 3 CS), the client complained of having difficulty urination, a bloated abdomen, and post-operative wounds cesarean section (CS) opened again. Postpartum urination difficulties can occur as a result of the mother's anatomical condition during pregnancy, where the anatomical position of the bladder adjacent to the uterus is compared to the condition when not pregnant. In addition, during surgical procedures, it can cause adhesions between the uterus and the bladder, which can reduce bladder mobility, increase the risk of bladder injury, and potentially lead to postoperative urinary retention. Research conducted by Khalil et al., (2023), shows that adhesion between the uterus and bladder occurs in about 30% of patients after one undergoing one CS, and increases to 46% after two CS. In addition, wound infections can also worsen the condition, where inflammation

and swelling of the tissues around the bladder can interfere with the normal function of the bladder and increase the risk of postoperative urine retention.

In addition to being caused by anatomical conditions, postpartum urination difficulties can occur related to obstetric factors, including the use of epidural analgesia, primipara, instrumental vaginal delivery, long labor, and perineal trauma (Liang et al., 2015). In addition, the operation of CS also has a role in postpartum urinary difficulties, but it is still difficult to explain given the effects of anesthesia and surgery that play a role in complicating postpartum bladder changes. Research conducted by Hoskins et al., (2024) shows that women who receive epidural anesthesia experience urine retention more often than those who receive spinal anesthesia. This is also supported by research conducted by Liang et al., (2015), which shows that women who receive epidural anesthesia have difficulty urinating more often than patient-controlled analgesia. From the same study, data were also obtained that the use of intermittent catheterization was effective as an initial treatment, with a high recovery rate within 24 hours. In cases, anesthesia is used during labor. Cesarean section (CS) is a regional anesthesia. This may be one of the causes of difficulty urinating in clients.

Other results of the research conducted by Hoskins et al., (2024), i.e. the optimal time to remove the catheter to minimize the risk of urine retention is 12 to 16 hours postoperatively CS. In Mrs. A's case, the catheter was only removed after 19 hours post-surgery, a CS. So that it is likely that the retention urine What happens to the client after returning home occurs as a result of the late process of removing the urine catheter in the client.

In addition to the effects of anesthesia during surgical procedures, less postoperative physical activity CS, can be one of the causes of difficulty urinating (retensio urine). This is due to a decrease in the tone of the detrusor muscle, which functions in bladder emptying. In addition, early mobilization is highly recommended to prevent urinary retention complications, as delayed mobilization can prolong the inability to urinate spontaneously, which can lead to urinary retention. In line with research conducted by Carbonell et al., (2024), where sedentary behavior can negatively impact postoperative health, including an increased risk of urine retention. This is supported by research conducted by Nur et al., (2022), that early mobilization has a significant effect on spontaneous urination after CS so as to reducing the risk of urine retention.

Urine retention in postpartum section cesarean mothers can have negative impacts on the body, including a high risk of urinary tract infections, bladder damage, and even kidney failure if not treated properly. In addition, bladder retention can interfere with uterine

contractions, increasing the risk of bleeding in postpartum mothers. In the case of Mrs. A, emergency treatment carried out by installing a catheter on POD 10 (when it comes to control) is appropriate to remove retained urine, the production of urine that comes out after the catheter installation of 2,500 cc shows that the urine production is high but cannot be removed so that it is retained in the patient's bladder. In addition, bladder training is carried out from 2 days before the catheter is removed to help stimulate the urinary nerves to be active again, so that after the catheter is removed, the client can feel the sensation of urination. Encouragement for gradual early mobilization is also important to stimulate the function of the muscles so that there is no recurrent urine retention.

Wound Dehiscence on Post-Cesarean Section

The condition of the client's wound that has not improved, where the wound has shown signs of infection, assessed from the REEDA mark, shows a score in the range of 5-11 the indicating that the infection is progressing to severe. Postoperative wounds are treated with aseptic techniques in the hope that the infection can be controlled. Some of the causes of infection in postoperative wounds in general can be caused by non-compliance in wound care procedures, improper use of prophylactic antibiotics, patient factors (age, albumin levels, Hb levels), long duration of surgery, and bleeding that occurs during surgery. When the study was carried out, data showed that the client's albumin and Hb levels were low, so that the wound healing process was prolonged and there was a risk of infection.

Albumin levels in the body play an important role in the wound healing process. Albumin, which is the main plasma protein, has a function in maintaining osmotic pressure, nutrient transport, and as an indicator of nutritional status. Low albumin levels, especially less than 3.5 g/dL, have an increased risk of postoperative wound complications, including infection and wound dehydration (He et al., 2020). In Mrs. A's case, the client's albumin level on October 17 was at 2.35 gr/dL (low), which may be one of the reasons why the post-operative CS wound Mrs. A is difficult to cure. This is in line with research conducted by Majhi, (2019), In 150 patients, patients with low albumin levels were more prone to injury complications compared to patients with normal albumin levels. This is not in line with the research conducted by Li et al., (2020), where postoperative hypoalbuminemia was not directly related to poor wound healing, but increased the risk of poor wound healing by 13% compared to patients with normal albumin levels.

In addition to low albumin levels, hemoglobin levels in the blood also play a role in the wound healing process. Hemoglobin has a role in transporting oxygen to the body's tissues,

including the postoperative wound area. Low hemoglobin levels can reduce the supply of oxygen to wound tissue, slowing down the wound healing process. This is supported by research conducted by Erliani et al., (2023), where there is a relationship between hemoglobin levels and post-wound healing CS. Research conducted by Kurnia et al., (2024) confirms that the healing process of post-wound CS is influenced by early mobilization (physical activity), adequate nutritional status, and hemoglobin levels in the body (anemia).

Adequate nutrition is very important to support wound healing. Research conducted by Richard, (2017) explained that there is a relationship between the wound healing process and nutritional intake, where adequately fulfilled nutrients can help the wound healing process. Nutritional deficiencies can slow healing and increase the risk of infection, while adequate nutrient intake, especially proteins, vitamins, and minerals, can speed up the recovery process. Research conducted by Hazaini et al., (2022) on 57 postpartum mothers showed that 11 postpartum mothers who consumed food well experienced good postoperative wound healing after CS. This is also supported by research conducted by Nurhasanah et al., (2019), where it is stated that factors that have a meaningful relationship in wound healing, one of which is adequate nutrition. The lack of adequate nutrition obtained by the client as a result of the client's lack of appetite can be one of the causes of the client's wound that is difficult to heal.

In addition to adequate nutrition, physical activities such as simple mobilization as early as possible need to be done. In cases, the client moves less, is more silent, and daydreams, so it is more likely that the wound is difficult to heal due to a lack of physical activity. This is also supported by research conducted by Hasanah et al., (2020), where there is a meaningful relationship between nutrition, mobilization, and personal hygiene against wound healing. Lack of activity can cause reduced bladder nerve stimulation, resulting in difficulty urinating and causing urine retention. Urine retention (bladder distension) can increase pressure in the area of the surgical incision wound, Caesar to interference with local blood circulation in the wound healing process.

Wounds that are not treated properly can also increase the risk of infection. In the case experienced by the client, the condition of the client's wound has led to a condition of infection, where there has begun to be pus discharge and wounds that are difficult to heal. After wound treatment 3 times a day, followed by the administration of antibiotic therapy (Cefadroxil and Metronidazole), the wound condition on the second day of the intervention began to improve, pus output began to decrease, and the condition of the wound edges began to close little by little. However, on the third day of the intervention, it was found that the wound condition

worsened again, where the pus output became more than before, and the wound condition that had initially begun to close became open again. After the wound treatment was carried out again and the cause of the worsening of the wound condition was searched, it turned out that the antibiotics that were supposed to be consumed by the client had not been taken for 4 days. Antibiotics should be taken to prevent infection in the wound, help reduce the microbial load so that the wound healing process can be faster and more controlled, reducing the possibility of complications such as wound dehiscence or abscess (Chen et al., 2021).

Efforts to treat wounds that have reopened continue to be carried out, one of the treatments carried out for Mrs. A is the use of archipelago honey as an alternative dressing to overcome the dehydration of post-wound CS. Honey is a natural antimicrobial that can help the wound healing process. Research conducted by Andreu et al., (2015), shows that the use of honey leads to an increased incidence of healing, desloughing effectively, and a lower incidence of infection; however, in some conditions, the use of honey does not significantly improve wound healing. From this study, it can be concluded that the use of honey can be effective if adjusted to the infected wound, considering that honey has a detrimental effect on diabetic ulcers, so further research is needed to show the effectiveness of the use of honey in supporting the wound treatment process. Research conducted by Surya et al., (2023) shows that post-operative wounds CS cleaned using saline liquid and wrapped in honey twice a day, shows the growth of granulated tissue and is ready for primary closure after 6 days of treatment, which shows that honey can be an alternative to dressing postoperative wounds CS.

After performing wound treatment using NaCl coupled with archipelago honey, the client's wound condition began to improve. The client was referred to the surgery department to perform NPWT (Negative Pressure Wound Therapy) and Necrotomy Debridement. Once the client's wound condition improves, the client is allowed to perform outpatient care and control 1 week later.

CONCLUSION

The postpartum period is a critical phase of recovery influenced by both physical and psychological factors. Complications such as urinary retention can result from anatomical factors, regional anesthesia, delayed catheter removal, and inadequate early mobilization. Poor wound healing may also be affected by internal and external factors. In the case of Mrs. A, delayed wound healing was associated with inadequate nutritional intake, leading to low albumin and hemoglobin levels. Limited physical activity further contributed to urinary retention, which can slow the wound-healing process. The use of honey as an alternative

dressing showed potential benefits in supporting wound recovery because it has natural antimicrobial properties.

Improper management prolongs treatment duration and increases the risk of broader complications, including infection, long-term bladder dysfunction, mobility limitations, emotional distress, and persistent pain. As professional health workers, comprehensive nursing care, along with continuous education and support for both the client and family, is essential to enhance the effectiveness of postoperative care and promote optimal recovery.

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