

## EFFECTIVENESS OF SKIN INTEGRITY AND BEDREST OF CELLULITIS PATIENTS: CASE STUDY

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### ABSTRACT

Cellulitis is an acute bacterial infection of the skin that spreads to the dermis, and sub-cutis layers preceded by injury or trauma; At the same time, the causes are beta-hemolytic Streptococcus and Staphylococcus aureus and an unsanitary environment, which can increase trauma and infection in the extremities, as for the signs and symptoms of Cellulitis. Namely, redness or inflammation of the extremities accompanied by pain, feeling hot, feverish, and muscle stiffness occurs so that it interferes with movement. After the author conducted an assessment on Mrs. H due to Cellulitis was obtained after practicing in a hospital where the environment was dirty so that it caused injuries to both lower extremities and caused the patient to have a fever, with observations that the patient appeared to be in pain with a pain scale of 5 (0-10), the patient felt hot on his body with body temperature 38°C, blood pressure 120/80 mmHg, pulse rate 86x/minute, respiratory rate 18x/minute. The results of the laboratory examination of leukocytes were 15,790/ $\mu$ L. The diagnoses raised were hyperthermia, acute pain, impaired skin integrity, and infection. The implementation given is compressing warm water on the forehead, neck and axilla to reduce body temperature, cleaning wounds on both feet with NaCl fluid, teaching deep breathing techniques to reduce pain, recommending bed rest and collaborating with the medical team in providing antipyretic therapy, antibiotics, anti-inflammatory and provide ointment for wounds. The evaluation obtained was that all nursing problems were resolved on the third day with the criteria for body temperature decreasing to 36.8°C, decreased skin damage marked by the wound starting to dry and not swelling, and pain decreasing with a pain scale of 1 (0-10). There is no spread of damage found.

*Keywords: Cellulitis, Skin Integrity, Bedrest*

### Introduction

Skin diseases in Indonesia are a problem in the world of health. Indonesia ranks 2nd out of the ten most extensive diseases after acute respiratory infections. One of the skin diseases includes Cellulitis. Cellulitis is an acute bacterial infection of the skin that spreads to the layers of the dermis and sub-quartz preceded by wounds or trauma, as for the causes of Streptococcus beta-hemolytic and Staphylococcus aureus. (End, 2018).

The prevalence of Cellulitis worldwide is not known for sure. The journal, Cellulitis-Epidemiology and Clinical Characteristics (2012) analyzed that in the Clinical Centre of the University of Sarajevo, from January 1, 2009, to March 1, 2012, 88 patients with Cellulitis. Male presentations were more frequent, 56.09%, with an average age of 50. Prevalence of cellulitis site of the limbs (71.56%), arms (12.19%), head and neck (13%), and body (3.25%).

The first treatment is given with lincosamide group antibiotics. Based on data from registered records at the Yogyakarta City Hospital in the last six months, from January 1 to June 30, 2018, six patients suffered from Cellulitis (Muharti, 2018).

At the Mission Hospital, Lebak-Banten cellulitis is not the 10th most extensive disease; as for the data obtained in 2021, one outpatient and three inpatients out of 3,694 people are members of the ten most extensive patients. The cause of Cellulitis is a less clean environment and work that can increase trauma and infection of the extremities; the signs and symptoms of Cellulitis, namely redness or inflammation of the extremities accompanied by pain and feeling hot, fever, and muscle stiffness that interferes with movement (Furlan, 2016). Complementary actions in nursing that can reduce pain can be done by listening to classical music (State, 2019).

Management in Cellulitis can be in the form of rest, elevated lower limbs (elevation), higher than the location of the heart, for systemic treatment given antibiotics, topical, open compresses with antiseptic solutions. Delays in treatment can cause disability due to tissue necrosis and even death due to sepsis (Mitaart, 2014).

The role of nurses in providing nursing care to cellulitis patients is carried out comprehensively by helping to overcome patient problems, namely hyperthermy, acute pain, skin integrity disorders, and the risk of infection, as for the implementation given to cellulitis patients, namely lowering body temperature, reducing pain, helping to maintain patient skin hygiene, providing a comfortable position and immobilization of the extremities and collaborating in providing therapy, so that the evaluation in cellulitis patients obtained that all nursing problems can be resolved (Muharti, 2018).

## **Methods**

This study is a case study that aims to describe the application of nursing knowledge and practice to patients who experience Cellulitis. This case study uses a nursing approach that prioritizes holistic care in the patient's biological, psychological, social and spiritual aspects. The nursing intervention is focused on an interpersonal process so that a commitment is formed in the implementation given by the nurse in helping to meet basic human needs during parawatan in the hospital.

## **Result**

### **Case Illustration**

Mrs. H, a 49-year-old woman, was admitted to the inpatient room with a medical diagnosis of Cellulitis. The patient had wounds and swelling in both lower extremities, pain with a pain scale of 5(0-10), and a fever of body temperature of 38°C. Leukocyte laboratory examination results 15,790 /  $\mu$ L, GDS : 120 mg / dl. Patients get Cefixime therapy 200 mg 2x1, Sanmol 3x1 (when not dystopian fever), Methylprednisolone 8 mg 2x1, sterile gauze wound treatment, NACL, and recommended bed rest.

### **Patient's Condition**

The anamnesis results of the patient's main complaint obtained data from patients

complaining of pain in both legs due to swelling and wounds. The patient reported his injuries were obtained after practicing in a hospital where the environment was dirty. The patient has a fever. The observation results obtained patients with a pain scale of 5 (0-10), palpable heat on their body with a body temperature of 38 ° C, blood pressure 120/80 mmHg, pulse frequency 86x / minute, breathing frequency 18x / minute. Leukocyte laboratory examination results 15,790 /  $\mu$ L, GDS : 120 mg / dl.

Further studies on Mrs. H found data on the awareness of compos mentis with GCS values of motor response 6, speech response 5, and eye-opening response 4. Patient activities can be carried out independently; during the treatment period at the hospital, the patient feels anxious about the condition of the wounds on both legs because they are getting wider and hope to dry soon so that they can work again and can be resolved by diligently carrying out worship.

The nurse performs nursing actions for three days through observation, therapeutic, education and collaboration. The nursing intervention aims to overcome hyperthermy, infection, skin integrity disorders, and pain. The intervention stage is divided into two sets preparation and the location of implementation (implementation).

In the preparatory stage, the nurse provides health education about the functioning of the nursing intervention and the goals to be achieved. The nurse then builds on the patient's commitment to participate in nursing interventions regularly. At the implementation stage of nursing, nurses provide therapeutic measures such as compressing warm water on the forehead, neck and axillary to lower body temperature, cleaning wounds on both legs with NaCl fluid, teaching deep breathing techniques to reduce pain, recommending bed rest and collaborate with the medical team in providing antipyretic therapy, antibiotics, anti-inflammatory as well as providing ointments for wounds.

After three days of treatment, the nursing problem in Mrs. H was resolved with the criteria resulting in body temperature decreased to 36.8°C, damage to the skin layer decreased already starting to dry out and swollen titan, pain decreased with a pain scale of 1(0-10), and there was no spread of wounds.

## Discussion

The cause of Cellulitis is a poorly clean environment and work that can increase trauma and infection in the extremities as the signs and symptoms of Cellulitis, namely redness or inflammation of the extremities accompanied by pain and feeling hot, fever, and muscle stiffness occurs so that it interferes with movement after the author conducted an assessment of the causes of Cellulitis in Mrs. H is the result after practice from a hospital whose environment is dirty so that it has an impact on causing wounds in both of them. Lower extremity, this causes the patient to have a fever, so it can be concluded that there are similarities between the facts and theories as evidenced by the results of observations obtained patients appearing to be pain with a pain scale of 5 (0-10), patients palpable heat on their body with a body temperature of 38 ° C, blood pressure 120/80 mmHg, pulse frequency 86x/minute, respiratory frequency 18x/minute. Leukocyte laboratory examination results 15,790 / $\mu$ L.

Nursing diagnoses in cellulitis patients can be removed hyperthermy, acute pain, skin integrity disorders, and the risk of infection for the diagnosis adopted in Mrs. H patients are hyperthermy, acute pain, skin integrity disorders, and conditions, so it can be concluded that there are similarities in diagnosis, namely hyperthermy, acute pain, skin integrity disorders, as for the difference in the diagnosis of infection risk in the theory of being raised risk and for the fact that the diagnosis is actual, then the infection is lifted marked by wounds on both legs widening further with the results of laboratory examination of leukocytes 15,790 / $\mu$ L.

The implementation of the theory of cellulitis patients is to lower body temperature, reduce pain, help maintain patient skin hygiene, provide a comfortable position and immobilization of the extremities and collaborate in providing therapy, and for the implementation of the fact that it compresses warm water on the forehead, neck and axillary to lower body temperature, cleans wounds on both legs with NaCl fluid, teaches deep breathing techniques to reduce pain, recommending to bedrest and collaborate with the medical team in providing antipyretic therapy, antibiotics, anti-inflammatory and providing ointments for wounds, so

that it can be concluded that there are similarities in providing actions to cellulitis patients only more specifically on the implementation of facts by SIKI.

Evaluation in cellulitis patients according to the theory obtained problems of hyperthermy, acute pain, impaired skin integrity, and the risk of infection can be resolved for an evaluation on the fact that Mrs. H's nursing problems are fixed on the day of pregnancy with the criteria of the result of body temperature decreases to 36.8 °C, damage to the skin layer decreases because it has begun to dry out. Swollen titan, the pain subsides with a pain scale of 1(0-10). There is no spread of wounds; it can be concluded that there are similarities between theories and facts in patients with Cellulitis, so the problem can be resolved.

## Conclusions

Mrs. H is a patient with a diagnosis of sites consciousness cellulitis who has wounds and swelling in both legs after practice from a hospital where the environment is dirty so that the patient has a fever and observation results are obtained the patient appears to be painful with a pain scale of 5 (0-10), the patient is palpable hot on his body with a body temperature of 38 °C, blood pressure 120/80 mmHg, pulse frequency 86x / min, respiratory frequency 18x/min. Leukocyte laboratory examination results 15,790 / $\mu$ L.

The diagnosis adopted in Mrs. H's patients was hyperthermy, acute pain, impaired skin integrity, and infection. The implementation of Mrs. H is to compress warm water on the forehead, neck and axillary to lower body temperature, clean wounds on both legs with NaCl fluid, teach deep breathing techniques to reduce pain, recommend bed rest and collaborate with the medical team in providing antipyretic therapy, antibiotics, anti-inflammatories and providing ointments for wounds.

Mrs. H's nursing problems were resolved on the day of pregnancy with the criteria of body temperature results decreased to 36.8 °C, and damage to the skin layer dropped because the wound had begun to dry out and swollen. Pain decreased with a pain scale of 1(0-10), and there was no spread of damages. Caring and motivation are vital in providing nursing care to achieve optimal recovery.

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