

The effectiveness of wound care in preventing infection risk in patients with distal radius fracture post-orif at RSUD Wates

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Abstract

A fracture is defined as the disruption of the continuity of bone or cartilage structure, either completely or partially, with distal radius fracture being one of the common types. Distal radius fractures are often referred to as wrist fractures. Management of this fracture frequently requires surgical intervention, such as Open Reduction and Internal Fixation (ORIF). Following ORIF, one of the significant concerns is the risk of infection, which can impede the wound healing process, prolong hospitalization, and lead to more severe complications. One of the measures to prevent infection risk is through effective wound care, which involves cleaning, treating, and dressing the wound. This study aims to evaluate the effectiveness of wound care in preventing infection risk among patients in the Menorer Lor Ward at RSUD (Regional General Hospital) Wates, specifically those diagnosed with distal radius fracture post-ORIF. This research employed an observational case study design with a cross-sectional approach, focusing on patients at risk of infection, particularly those with a medical diagnosis of right distal radius fracture post-ORIF. Nursing care provided included wound care to prevent infection resulting from invasive procedures, along with collaborative medication administration. The result indicated a reduction in pain levels, with wounds appearing clean and moist, and no signs of infection such as redness, swelling, or purulent discharge. Additionally, no necrotic tissue was observed. Wound care utilizing sterile techniques and standard operating procedures has proven effective in preventing infection risk, as evidenced by significant improvements in wound appearance, reduced pain, and the absence of infection or necrosis following the intervention.

Keywords: fracture; infection risk; wound care

1. Introduction

A fracture is a complete or partial break in the continuity of bone or cartilage structure. Fractures can be caused by a direct blow, crushing force, sudden twisting motion, or even extreme muscle contraction. A broken bone can disrupt surrounding structures, leading to soft tissue edema, hemorrhage into muscles and joints, joint dislocation, tendon rupture, nerve damage, and blood vessel damage (Hidayanti, 2023).

Fractures that often occur due to severe trauma include distal radius fractures. Distal radius fractures are commonly known as wrist fractures. These injuries are generally associated with high-energy mechanisms in younger patients and lower-energy mechanisms or falls in older patients. These fractures cause acute pain and swelling in the wrist, and if left untreated, can result in significant morbidity (Mafruchati, 2024). Pain from distal radius fractures can also cause muscle spasms around the fracture site, further exacerbating the pain and limiting joint movement (Putri Meliana & Wahyu Setyo Budi, 2024).

Distal radius fractures are one of the most common types of fractures, especially in the wrist. Distal radius fractures account for 17.5% of fractures worldwide (Abduh et al., 2022). The Basic Health Research (Riskesdas) shows that the prevalence of fractures in Indonesia is generally 5.5 per 1,000 population (Yadnya & Wijaya, 2022). The Riskesdas also shows that fractures in the Yogyakarta area are around 7.17%, with 33.62% of these affecting the upper extremities, including distal radius fractures.

Clinical manifestations of distal radius fractures include severe pain in the wrist, swelling, deformity, limited joint motion, decreased muscle strength, skin discoloration due to bleeding, bruising, incision wounds, injury to soft tissue or structures around the bone (Hidayanti, 2023). Appropriate management of patients with post-ORIF distal radius fractures includes physiotherapy and infrared (IR) therapy to reduce pain, inflammation, reduce muscle spasms, increase muscle strength, and expand joint motion (Susanti & Rindang Trie Damayanti, 2023). One of the main treatments for patients with post-ORIF right distal radius fractures is wound care. Wound care is an important part of management to prevent infection and support the healing process. The main focus of wound care is infection control

(Noviyani, 2023). Patients undergoing surgery or invasive procedures can increase the risk of infection in the surgical wound (Chairani et al., 2019).

The risk of infection is a condition in which a person has the potential or vulnerability to the invasion and multiplication of pathogenic organisms, which can harm health. The increased risk of infection is partly due to invasive procedures (Noviyani, 2023). These procedures cause penetration of the skin and tissue, allowing the entry of pathogenic microorganisms, thereby increasing the risk of surgical wound infections (Chairani et al., 2019). This is consistent with research (Jannah, 2022), which indicates that one of the main risk factors for infection is impaired postoperative wound healing.

Managing the risk of infection involves taking care of the wound, including regular wound cleaning, sterile dressing changes, and monitoring for signs of infection such as redness, swelling, excessive pain, or discharge to prevent infection.

Infection prevention is also assisted by administering prophylactic antibiotics (Noviyani, 2023). The management of post-operative wound infection risk by nurses involves surgical wound care.

Wound care is the act of cleaning, treating, and closing wounds (Saputra et al., 2024). Wound care can maintain wound hygiene, keep it clean and moist, prevent infection, and accelerate the recovery of skin and underlying tissue. Sterile techniques in wound care are crucial to support the healing process and prevent infectious complications and excessive scar tissue formation (Setyowati & Wirawati, 2020). Wound care can be provided to patients after ORIF fracture surgery to prevent infectious complications and accelerate the wound healing process (Setyowati & Wirawati, 2020).

Based on this background, infection prevention is the main focus in interventions. Nursing. Nurses' compliance in implementing wound care significantly influences the success of healing and the prevention of infectious complications (Arisdiani & Arifin, 2024). Therefore, researchers are interested in conducting a case study by applying nursing care to patients with post-ORIF distal radius fractures to prevent infection by performing wound care using sterile techniques in post-ORIF surgery patients in the Menoreh Lor Ward, Wates Regional Hospital.

2. Methods

2.1. Research Design

This research is an observational case study with a cross-sectional approach design.

2.2. Research Subjects

The research subject in this case study was a patient with a right distal radius fracture after ORIF (Open Reduction and Internal Fixation).

2.3. Data collection technique

2.3.1. Primary Data

Observation is carried out by directly observing the physical condition, behavior, patient response to the procedure, as well as conducting physical examinations and direct interviews with the patient (Ummah, 2019). Physical examination includes inspection, which is carried out by directly observing the patient's body parts using the sense of sight. Palpation is an examination technique using the touch of the hands and fingers to assess various characteristics of the patient's body such as texture, temperature, softness, stiffness, size, position, consistency, presence of masses, and tenderness. Percussion is an examination technique by tapping the finger, hand, or small tool on the surface of the patient's body to assess the condition of organs or tissues under the skin based on the sounds produced. Auscultation is an examination technique by listening to the sounds produced by body organs using a stethoscope to distinguish between normal and abnormal sounds.

2.3.2. Secondary Data

Secondary data is data obtained from pre-existing sources and not collected directly by researchers from patients or research subjects (Yanto, 2023). The data obtained comes from patient medical records, diagnostic examination reports, and nursing documentation documented by healthcare professionals.

2.4. Data analysis

2.4.1. Data Reduction

Data reduction was carried out by selecting, summarizing, simplifying, and focusing the collected raw data to make it more relevant, meaningful, and easily analyzed. Data reduction consisted of interviews with research subjects, namely patients with post-ORIF right distal radius fractures.

2.4.2. Data Presentation

Presentation of data in the form of narrative text in the form of notes from interviews with patients and their families with post-ORIF right distal radius fractures in the Menoreh Lor Ward, Wates Kulon Progo Regional Hospital. The results of observations and physical examinations are structured information that provides the possibility of drawing conclusions and verification.

2.4.3. Drawing Conclusions

Conclusions were drawn by identifying the characteristics of patients with post-orif right distal radius fractures. Analysis is a cyclical process involving the interaction of the three data analysis steps until the research is completed. The data analysis technique used in this study was descriptive, systematically organizing the interview guidelines, nursing care formats, and literature data. Verification was performed by examining data reduction and data presentation.

3. Results and Discussion

3.1. Results

3.1.1. Assessment

Nursing assessment is the initial and fundamental stage of the nursing process, aiming to systematically and comprehensively collect data on the patient's condition, both subjective and objective. The data collected covers the patient's physical, psychological, social, and spiritual aspects (Rizal, 2021).

The assessment was conducted on February 3, 2025, on Mrs. K, a 75-year-old woman who was treated at the Menoreh Lor Ward with a diagnosis of Post-ORIF Right Distal Radius Fracture. The patient came with a chief complaint of pain in the right wrist and the wire attached to the right wrist post-surgery 2 months ago came out a little. This condition caused physical discomfort which resulted in pain in the wrist. Subsequently, the patient underwent ORIF surgery for the Right Distal Radius Fracture on February 4, 2025, and there was a post-ORIF wound dressing.

On physical examination, the results of the cardiovascular system were obtained, the results of the examination of the pulse rate were 63 x / minute, blood pressure 128/100 mmHg, temperature 36°C, skin color was brown and looked dry, heart rhythm was regular, no chest pain was found. In the respiratory system, the results of respiration were 22 x / minute, regular breathing rhythm, oxygen saturation 99%, in the central nervous system, the results of the patient's consciousness were found Eyes 4 Verbal 5 Motoric 6 indicating the patient with a composmentis level of consciousness. In the gastrointestinal and urinary systems there were no problems. In the musculoskeletal and integument systems, turgor was found.

The skin appears elastic, there is a fracture and post-operative wound on the right wrist. There is a decrease in muscle strength in the wrist 3/5. The results of the Morse scale measurement for fall risk are 20 (mild fall risk). Bad Bad the patient is installed with a hand-rail and the wheels are locked to prevent falls in the patient. The patient's functional status is found that for current activities and mobilization the patient is partially assisted by the family.

Based on her previous medical history, Mrs. K stated that two months ago (November 28, 2024) she slipped on the path while going to the garden, her wrist felt sore from supporting the weight of the fall. She was then taken to the emergency room at Wates Regional Hospital and an X-ray showed a crack and fracture in her right wrist. On November 29, 2024, a brace was installed.

Observations on February 4, 2025, following an ORIF right distal radius fracture showed a wound dressing on the wrist. The wound was approximately 1 cm in size. The wound appeared reddish and contained a drop of blood, indicating a possible risk of infection. This assessment indicated that the wound healing process was at risk of infection because the post-ORIF wound still appeared reddish and contained a drop of blood.

3.1.2. Data analysis

Nursing diagnosis is part of the nursing process based on data obtained during the nursing assessment and aims to identify health problems that can be addressed by nurses through nursing interventions (Sianturi, 2021). The nursing diagnosis established in the patient is the risk of infection as evidenced by the effects of invasive procedures (D.0142). Subjective data obtained by the patient stated pain in the post-ORIF wound of the Distal Right Radius Fracture. Objective data obtained were Leukocytes $6.63 \times 10^3/\mu\text{L}$, there was a post-operative wound dressing on the wrist, the post-operative wound was approximately 1 cm in size, the wound appeared reddish and there was a drop of blood coming out of the post-operative wound. The data was raised to the etiology of the effects of invasive procedures with the nursing problem of infection risk. From the results of the data analysis, the nursing problem was determined in Mrs. K based on the Indonesian Nursing Diagnosis Standards (SDKI), namely the risk of infection characterized by the effects of invasive procedures with the diagnosis code D.0142. The next stage is to carry out interventions or plan appropriate nursing actions for the patient. The selected nursing action plan is adjusted to the patient's current needs, namely patients with nursing problems at risk of infection.

3.1.3. Intervention

Nursing intervention is any form of action or therapy carried out by nurses based on clinical knowledge and judgment, with the aim of improving, preventing, or restoring the health of clients, both individually, as a family, or in a community (Bustan & P, 2023).

The intervention given to Mrs. K, diagnosed with a distal radius fracture after ORIF surgery with a risk of postoperative wound infection, was to perform wound care using sterile techniques. Wound care involves cleaning the wound using 0.9% NaCl solution, administering medication as indicated, and covering the wound.

Wounds should be dressed appropriately. Sterile technique in wound care is a method used for wounds at high risk of infection, such as post-operative wounds. This technique uses sterilized equipment and materials to prevent infection and accelerate healing (Yanti et al., 2021).

3.1.4. Implementation

Nursing implementation is the stage in the nursing process that involves implementing planned interventions to holistically meet patient needs. This implementation includes coordinating activities between the patient, family, and other healthcare team members to monitor and record the patient's response to the nursing interventions provided (Safitri, 2019).

The three-day implementation involved performing wound care using sterile techniques. According to Yanti et al. (2021), postoperative wound care using sterile techniques is a treatment performed using sterile tools, materials, and procedures to keep the wound clean from infection-causing microorganisms. This technique includes the use of sterile gloves, sterilized tools and materials, and the application of aseptic principles during dressing changes and wound cleaning. Postoperative wounds, such as fractures, are susceptible to infection if non-sterile wound care techniques are applied correctly. Nurses must always wash their hands before and after the procedure, avoid sharing tools without sterilization, and strictly follow standard operating procedures for wound care. The application of sterile techniques in wound care has been linked to a decrease in the incidence of postoperative infections. Thus, the implementation of sterile techniques is key to preventing infection in post-fracture wounds (Sandra et al., 2022).

On the first day of wound care, nurses focus on thoroughly cleansing the wound using saline (0.9% NaCl). This procedure aims to remove dirt, necrotic tissue, and other contaminants that could trigger infection. After cleansing the wound, nurses proceed with the application of an appropriate sterile dressing. The dressing is selected based on the wound's condition to maintain optimal moisture, accelerate the healing process, and provide protection against the risk of contamination from the external environment. This procedure is a crucial part of modern wound management to prevent complications and support effective tissue regeneration.

On the second day of treatment, the nurse conducts a thorough evaluation of the wound, noting any signs of infection, such as redness, swelling, increased local temperature, or excessive exudate. Furthermore, wound moisture is assessed to ensure an optimal healing environment, and the patient's pain level is also monitored as an indicator of wound condition and comfort. Following the evaluation,

the dressing is changed using aseptic techniques to prevent cross-contamination and minimize the risk of further infection. At this stage, topical sucralfate is also administered to help protect the wound tissue, accelerate cell regeneration, and support the overall healing process.

3.1.5. Evaluation

The assessment results revealed a diagnosis of Mrs. K's risk of infection, as evidenced by the effects of the invasive procedure. The nursing interventions carried out included monitoring signs and symptoms.

infection, perform wound care, and collaborate on analgesic administration. The nursing implementation carried out by the author included monitoring for signs and symptoms of infection and performing wound care using sterile techniques.

After treatment was carried out on Mrs. K with the risk of infection Post ORIF Fracture Radius Distal Right on the 1st day it still looked wet, red, a drop of blood came out, and continued for wound care on the 2nd day before the patient went home the wound looked better, slightly dry there was no redness or blood and the pain had decreased, Furthermore, providing education regarding wound care at home, namely the surgical wound should not be exposed to water first, and do not open the dressing if you have not had a check-up, if you are going to clean the wound you can wash your hands first, and the wound check is carried out 3 days after being declared home. Nursing problems have been resolved.

3.2. Discussion

3.2.1. Assessment

Post-ORIF (Open Reduction Internal Fixation) surgery for distal radius fractures is an open surgical procedure performed to repair and stabilize the fracture by inserting internal fixation devices such as plates and screws. The surgical procedure carries a risk of post-operative infection. This risk arises because the surgical procedure opens the skin and soft tissue, allowing microorganisms to enter the healing surgical wound (Hidayanti, 2023).

The results of the above assessment found that the patient complained of pain in the right wrist and the wire attached to the right wrist post-surgery 2 months ago protruded slightly. This condition causes physical discomfort resulting in wrist pain. This is also supported by Kawiyana et al (2020) who stated that orthopedic implants that protrude or partially protrude often complain of pain and impaired function in the area where the implant was installed. Protruding implants can cause soft tissue irritation, pressure on nerves or tendons, increasing the risk of infection and scar tissue formation. Wrist pain due to post-ORIF surgery is in line with research by Hidayanti (2023) who discussed that patients post-ORIF surgery for distal radius fractures often experience wrist pain, experience limited mobility, and cause decreased muscle strength after surgery. Pain in the post-operative wound is also in line with research by Manalu et al., (2023) who stated that the main complaint often found is pain in the surgical wound. Pain that does not improve or worsens can be an early indicator of the risk of surgical wound infection.

In the case above, the number of Leukocytes was $6.63 \times 10^3/\mu\text{L}$, there was a post-operative wound dressing on the wrist, the post-operative wound was about 1 cm in size, the wound looked reddish and there was a drop of blood coming out of the post-operative wound. This is in line with Noviyani's research (2023) which stated that post-ORIF surgery on Distal Radius fractures often had complications in the form of pain, edema, redness, and impaired function related to the inflammatory process and healing of soft tissue around the surgical wound. Redness and discharge from the wound can be early signs of local inflammation or infection that must be treated immediately to prevent complications such as Infection in the tissue or osteomyelitis. Post-operative wounds that show redness and discharge, even a small amount, indicate soft tissue damage and potential infection. Infectious complications in surgical wounds can lead to delayed healing, prolonged pain, and the risk of systemic infection if not treated appropriately (Nadialista Kurniawan, 2021). This is also in line with research (Shabrina et al., 2024), which states that symptoms of surgical site infection include redness, swelling, and discharge from the surgical wound as an inflammatory reaction caused by the entry of pathogenic microorganisms into the surgical wound.

3.2.2. Data analysis

The nursing diagnosis that arises in the post-ORIF right distal radius fracture that underwent surgery is the risk of infection due to invasive procedures. Surgical wound infection is part of the main problem in nursing management. One of the nursing care provisions is the prevention of infection in post-operative wounds. Determining infection and non-infection in surgical wounds can be done using the REEDA scale, a wound healing measurement tool that assesses five main parameters: Redness (Redness), Edema (Swelling), Ecchymosis (Bruising), Discharge (Fluid Release), and Approximation (Wound Edge Unification) (Kartikasari & Apriningrum, 2020).

A diagnosis of infection risk proven by invasive procedures is a diagnosis that indicates an increased likelihood of a patient experiencing infection due to invasive procedures, including surgery and the installation of internal fixation devices, this can facilitate the penetration of germs into the body that can cause surgical wound infections. This is in line with research (Pramesti & Niam, 2025) which emphasizes that the main risk factor for infection is caused by invasive procedures that can lead to nosocomial infections, especially in hospitalized patients who experience decreased immunity and comorbid medical conditions. These infections can occur due to exposure to pathogenic microorganisms in the hospital environment and the use of invasive medical devices.

3.2.3. Intervention

The interventions carried out on Mrs. K's patient were infection prevention, namely performing wound care with sterile techniques, limiting the number of visitors, washing hands before and after contact with the patient or the patient's environment, and maintaining aseptic techniques in high-risk patients, and explaining the signs and symptoms of infection, teaching how to check the condition of wounds or post-operative wounds and recommending increasing nutritional intake. This is in line with research by Eric Winarno & Chintami Octavia (2025) which states that consistent application of sterile techniques can reduce the risk of pathogenic microorganisms entering the wound, thereby accelerating the healing process and reducing infectious complications.

In nursing theory, the application of sterile techniques in post-ORIF wound care is crucial to prevent infection. Using standard operating procedures (SOPs) with sterile techniques can reduce the risk of infectious complications in post-ORIF patients. These sterile techniques include the use of sterile instruments and materials, proper handwashing, and aseptic dressing changes to keep the wound clean and moist. Research shows that nursing care using sterile techniques is effective in addressing skin and tissue integrity impairment and preventing post-ORIF post-operative infections (Yanti et al., 2021). Limiting the number of visitors in the treatment room is also an important strategy in reducing the risk of infection. Controlling visitor access and educating patients' families about hygiene contribute significantly to reducing the rate of nosocomial infections in hospitalized patients (Sari & Soebyakto, 2023).

Handwashing before and after contact with patients or their surroundings is the most effective method for preventing cross-infection. Healthcare workers' adherence to handwashing protocols according to standard operating procedures (SOPs) significantly reduces the incidence of nosocomial infections. Proper handwashing not only protects patients but also healthcare workers from the risk of disease transmission. Maintaining aseptic technique in high-risk patients is equally important. The use of personal protective equipment (PPE), sterilization of medical devices, and proper management of medical waste are all essential aseptic practices that must be implemented. Consistent implementation of aseptic technique by nurses can reduce the incidence of nosocomial infections and improve patient safety (Windyastuti et al., 2022).

Educating patients and families about the signs and symptoms of infection is crucial for early detection. Good knowledge will help patients recognize abnormal changes in wounds, such as excessive redness, swelling, purulent discharge, or increased pain. Patient and family understanding of infection prevention is up to 85%, contributing to a reduction in nosocomial infection rates (Yanti et al., 2021). Encouraging increased nutritional intake is also an important part of wound care and infection prevention. Adequate nutrition, particularly protein, vitamin C, and zinc, plays a role in accelerating wound healing and strengthening the patient's immune system. Research shows that patients with good nutritional status have faster wound healing times and a lower risk of infection than malnourished patients (Sakdiyah et al., 2024).

A combination of wound care using sterile techniques, visitor restrictions, proper handwashing, aseptic technique, patient and family education, and improved nutritional intake is a comprehensive strategy proven effective in preventing postoperative infections. Consistent implementation of these steps by healthcare professionals and active patient involvement are key to success in accelerating wound healing and reducing infectious complications (Radja & Muskananfolo, 2025).

3.2.4. Implementation

In the case study of Mrs. K, the author performed post-operative wound care for ORIF fracture of the Distal Radius of the Right Cross, because wound care is very important for post-operative patients to reduce the risk of infection. This is in line with research by Yanti et al. (2021) which emphasized that sterile techniques in wound care include various important procedures such as washing hands before and after the procedure, not using instruments interchangeably without sterilization, and preparing sterile instruments. These steps aim to avoid wound contamination by pathogenic microorganisms that can cause infection. Other studies also emphasize that wounds are the main entry point for bacteria, so maintaining cleanliness and sterilization of instruments is very important in the wound healing process.

In addition to preventing infection, wound care using sterile techniques also helps maintain wound cleanliness and optimal tissue regeneration. Wound infections can cause redness, swelling, pain, and pus discharge, all of which slow the healing process. By applying sterile techniques, the risk of these complications can be minimized, resulting in faster and more effective wound healing (Sari & Soebyakto, 2023). This is also in line with research by Nathania et al. (2024), which states that the application of sterile techniques in wound care also plays a role in maintaining the cleanliness of the wound and the treatment environment, thereby minimizing the risk of external contamination. Modern wound care that prioritizes the principles of cleanliness and the use of sterile dressings shows lower infection rates than conventional methods. This strengthens the evidence that sterile techniques involve not only sterilizing equipment but also implementing procedures that keep the wound clean and protected from infection-causing microorganisms.

Wound care is implemented over two days in stages, following strict standard operating procedures. On the first day, care focuses on cleansing the wound using physiological saline (0.9% NaCl). The wound is cleansed using 0.9% NaCl, and appropriate sterile dressing application is essential. The dressing type is selected based on the wound condition to maintain optimal moisture. This moisture helps protect granulation tissue from drying out and accelerates epithelial cell migration and proliferation, resulting in faster and more effective wound healing (Mina & Isa, 2021).

Implementation on the second day of wound condition evaluation was carried out by observing signs of infection, wound moisture, and patient pain, then changing the dressing using aseptic techniques and administering sucralfate. This is in line with research by Nathania et al (2024) which states that Sucralfate also plays a role in stimulating angiogenesis and epithelial cell proliferation, which supports new tissue regeneration. Increased production of prostaglandin E2 and cell mitotic activity in the wound area helps improve microcirculation and strengthens the structure of newly formed tissue. Sucralfate also plays a role in stimulating angiogenesis and epithelial cell proliferation, which supports new tissue regeneration. Increased production of prostaglandin E2 and cell mitotic activity in the wound area helps improve microcirculation and strengthens the structure of newly formed tissue.

3.2.5. Evaluation

Observation results showed significant improvement in the wound condition. The wound appeared clean and moist, with no signs of infection such as redness, swelling, or purulent discharge, and no necrotic tissue was found. The decrease in pain experienced by the patient was also a positive indicator of the healing response. These results reflect the effectiveness of previous interventions, including wound cleansing, appropriate dressings, and topical therapy to support the healing process.

The effectiveness of wound care in Mrs. K aligns with research by Ummah (2019), which showed that the application of sterile principles in wound care, such as the use of suffratulle dressings and sterile gauze that are changed regularly, successfully prevented infection and improved the quality of wound healing in post-femur fracture surgery patients. Research conducted by Yanti et al. (2021) revealed a significant relationship between wound care techniques and wound healing.

Sterile wound care with a decrease in the incidence of postoperative infections, emphasizes the importance of handwashing, the use of sterile instruments, and aseptic techniques in wound care. According to Manalu et al (2023), wound care according to standard operating procedures that prioritize sterile techniques can prevent infectious complications and accelerate the healing process in post-ORIF patients and can prove that nursing care with standard wound care actions can improve the quality of healing and reduce post-surgical infections.

4. Conclusion

Based on the case study, it can be concluded that wound care using sterile techniques and standard operating procedures has been proven effective in preventing the risk of infection, showing significant improvements with wounds appearing clean, moist, without signs of infection or necrosis, reduced pain, and a reduction in wound area after the intervention. Implementing wound care for two days can improve wound condition, reduce the risk of infection, and improve the quality of healing. This demonstrates that nursing care using sterile techniques and in accordance with standard operating procedures is crucial for preventing infection in patients after ORIF surgery for distal radius fractures.

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