

Effect of Rapid Recovery Nursing for Patients with Ankle Fractures

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Abstract: An ankle fracture is an extremely common fracture that has far-reaching consequences for patients, severely limiting their mobility and significantly reducing their quality of life. Expedited rehabilitation surgery (ERAS) refers to the use of a number of evidence-based optimisation measures, in accordance with the relevant principles of evidence-based medicine, to reduce the physiological and psychological trauma of surgical patients in order to achieve rapid post-operative recovery. Accordingly, this paper, based on numerous literature reviews and a detailed analysis of clinical practice, thoroughly and comprehensively summarises the specific application of nursing care for rapid recovery in the areas of pain management, functional exercise, psychological support, quality of life improvement and other aspects, and the remarkable results achieved. The results of the study clearly show that rapid rehabilitation nursing care can significantly improve the speed of patients' recovery, effectively alleviate patients' pain, significantly reduce the likelihood of complications, improve patients' self-esteem, actively cooperate with medical staff in their care, and thus significantly improve patients' quality of life.

Keywords: Ankle fracture, rehabilitation, rapid recovery nursing.

1. Introduction

Ankle prevalence is prevalent worldwide and is especially common among athletes and the elderly. It is estimated that approximately 20% to 40% of athletes suffer ankle injuries each year, and the prevalence increases progressively with age. The causes of ankle ankylosis are varied and include trauma, degenerative diseases, rheumatic diseases, obesity, and other factors such as tumors and infections. Trauma such as falls, sprains and other external forces can lead to ankle injuries; with age, joint cartilage wears out causing pain; rheumatic diseases such as rheumatoid arthritis and gout can lead to inflammation; and obesity increases the burden on the joints, which can easily lead to injuries. In addition, tumors, infections and other factors may also cause ankle joint lesions.

Rehabilitation and recovery after ankle surgery varies from individual to individual, while can usually be divided into the initial postoperative period, the rehabilitation training stage and the functional recovery stage. In the initial postoperative period (1-2 weeks), patients need to follow the doctor's advice, rest appropriately and avoid early weight bearing. In the rehabilitation training stage (3-6 weeks), patients need to carry out rehabilitation training under professional guidance, including joint mobility, muscle strength training, etc., in order to promote the recovery of joint function. In the functional recovery stage (after 6 weeks), patients need to gradually resume normal activities, but still

need to pay attention to protect the joint to avoid re-injury [1]. It should be noted that the recovery after ankle surgery is affected by a variety of factors, such as age, degree of injury, and the effect of rehabilitation training. Therefore, during the recovery process, patients should actively cooperate with the doctor and follow the doctor's instructions in order to achieve the best recovery results.

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In recent years, the clinical patients with bone fracture mostly adopt rehabilitation and forging to intervene, thus also obtaining certain effect, but due to the patients' lack of knowledge and understanding of disease awareness and rehabilitation and forging understanding, thus affecting the effect of rehabilitation exercise, so we need to carry out nursing intervention to assist the patients to strengthen exercise, improve the quality of rehabilitation, so as to achieve rapid recovery [2].

2. Concepts and principles of rapid rehabilitation

Rapid Rehabilitation Nursing is a type of care that focuses on patient-centered care and emphasizes early intervention, individual treatment, and comprehensive rehabilitation. It also includes various aspects of pain management, functional exercises, psycho-education and health education. The purpose of Rapid Rehabilitation Nursing Care is to reduce pain, promote the recovery of the ankle joint and improve the quality of life of patients.

2.1. Pain management

Pain is one of the most common symptoms in patients with ankle fractures. Rapid rehabilitation emphasizes individualized pain, which includes a combination of medication, physical therapy, and rehabilitation. Through effective measures, thus achieving the effect of reducing the patient's pain level and improving the motivation of rehabilitation.

2.2. Functional exercise

Functional exercise is one of the key components of rapid rehabilitation care. Through early rehabilitative functional exercises, joint and mobility can be promoted, muscle strength and endurance can be enhanced, and joint stiffness and atrophy can be prevented. Continuous functional exercise can stimulate the local muscles, improve the local blood circulation of the ankle joint, accelerate the absorption of edema at the fracture site, promote the recovery of the cartilage of the ankle joint, and prevent the occurrence of joint adhesion and muscular wasting atrophy [3]. After a period of time, gradually weight-bearing training, further reduce joint pain and edema, reduce the occurrence of complications, and can continue to expand the joint mobility, so as to achieve the purpose of promoting the recovery of ankle joint motor function [4].

2.3. Reduced complication rates

Patients with ankle fractures may face a variety of complications, such as venous thrombosis in the lower extremity and joint stiffness. The intervention of measures such as elevation of the affected limb and strengthening of functional exercises in rapid rehabilitation care is beneficial to reduce the incidence of complications. Thus, it can reduce the pain and pressure of the patients, improve the recovery of the ankle joint, and help the patients to be discharged from the hospital as soon as possible.

2.4. Psychological support

Fractures of the ankle not only have a physical impact on the patient, while may also bring anxiety and psychological stress. After the rapid rehabilitation nursing intervention, it enables patients to return to motor function at an early stage, which is conducive to patients' participation in social activities as early as possible, and it can improve patients' material living standards and reduce their psychological stress burden, thus achieving the purpose of better quality of life for patients after recovery [5]. Therefore, rapid rehabilitation nursing is emphasizing the importance of psychological support, through psychological counseling, emotional management and relaxation to help patients face the stress caused by the disease and enhance the confidence and motivation to recovery.

2.5. Improve quality of life

Ankle fractures not only have an impact on the patient's pain, recovery of joint function, and psychology, but also on the patient's daily life. After the intervention of rapid rehabilitation nursing, it can greatly reduce the recovery time of patients after surgery. The goal of rapid rehabilitation care is to improve patients' quality of life. Through comprehensive nursing measures, including pain management, functional exercises and psychological support, patients' quality of life can be significantly improved, self-care in daily life can be enhanced and complications can be reduced.

3. Appliancation

3.1. Pain relief

An observational study was conducted between March 2021 and March 2022 and included 50 patients with ankle fractures, aiming to investigate the effect of rapid rehabilitation nursing care on postoperative pain in patients with ankle fractures. This study was categorized into a reference group and a study group, who received usual care (n=25) and rapid rehabilitation care (n=25), respectively. The study used VAS scores to compare the two groups, and there was no statistically significant difference in VAS scores ($p>0.05$) before nursing care; after the nursing care, VAS scores in the study group (2.12) was lower than the control group (2.51) ($p<0.05$) [6]. This indicates that rapid rehabilitation nursing can significantly relieve the pain level of patients and promote early recovery. Rapid rehabilitation should therefore be encouraged and used in clinical practice.

3.2. Joint function restoration

The study was observational in nature and aimed to investigate the effect of early rehabilitation on the recovery of ankle function after surgery in patients with ankle fracture. The study was conducted on 94 patients who were hospitalised for ankle fractures between 2019 and 2021. Patients were categorised into observation and control groups, both groups received surgical treatment, the control group received usual care, while the observation group received treatment for rapid rehabilitation, both groups received treatment for 12 weeks. Ankle function was compared between the two groups using two scores, Kofoed and AOFAS. The results showed that the ankle function score (84.84) of the observation group was higher than the control group (75.75) and the AOFAS score (78.35) was higher than the control group (70.79) after treatment ($P<0.05$) [7]. This indicates that rapid rehabilitation nursing can significantly promote the recovery of patients' ankle joint function. In addition, rapid rehabilitation nursing can also reduce the postoperative ankle recovery time, improve the prognosis of patients, and increase the satisfaction of patients with nursing care. Therefore, rapid rehabilitation treatment deserves to be promoted and implemented in the clinic to promote early recovery of patients.

3.3. Reduce complications

The aim of this observational study was to investigate the effect of early rehabilitation therapy on reducing postoperative complications in patients with ankle fractures. The study was conducted from January 2019 to January 2022 and included 66 patients with ankle fractures. They were divided into an observation group (n=33) and a control group (n=33), and the complication rates in the two groups were compared using a randomised numerical table. The results showed that the complication rate in the observation group (6.06%) was lower than in the control group (18.08%) [8], and the difference was statistically significant ($P<0.05$). This indicates that rapid rehabilitation intervention can significantly reduce the complication rate of patients, shorten the healing time of the ankle bone, advance the time of the first time out of bed, and improve the discharge rate of patients. Therefore, rapid rehabilitation intervention is worth popularizing and applying in the clinic.

3.4. Improve mood

Investigating the impact of postoperative psychological alterations on patients who received a quick recovery nursing intervention was the aim of this study. The study involved 86 patients with ankle fractures who were billed at the hospital and was carried out using an observational research methodology. Patients were divided into two groups of forty-three in this study: the rapid rehabilitation concept group and the conventional group. The patients in the conventional group received postoperative conventional nursing interventions, while the patients in the rapid rehabilitation concept group received postoperative rapid rehabilitation concept nursing interventions. The GQOLI scores, encompassing psychological functioning, social functioning, material life, and physical functioning, were assessed both prior to and following the nursing intervention in both groups. The findings indicated that after 12 weeks of care, the psychological functioning score in the rapid rehabilitation group (26.38) significantly surpassed that of the conventional group (24.80), with $P<0.05$ [9]. This indicates that rapid rehabilitation nursing can significantly improve the psychological state of patients, enhance the self-confidence of ankle rehabilitation, and actively cooperate with medical staff, which is conducive to improving the discharge rate of patients [10]. Furthermore, rapid rehabilitation nursing has been shown to facilitate a reduction in postoperative ankle recovery time, enhance patient prognosis, and increase overall patient satisfaction with nursing care. Therefore, the implementation of rapid rehabilitation nursing is recommended in clinical practice due to its positive impact on patients' conditions.

3.5. Improving quality of life

The objective of this study was to examine the impact of rapid rehabilitation nursing intervention on the postoperative quality of life in patients. This observational research involved 80 patients with ankle fractures who were admitted to the hospital between June 2020 and December 2021. Participants were assigned to either a control group or an observation group using a randomized numerical table method, with the observation group receiving rapid rehabilitation nursing (n=40) and the control group receiving routine nursing care (n=40). Quality of life was assessed using the GQOLI-74 both before and after the intervention. The results indicated no statistically significant difference in scores prior to nursing care; however, post-intervention quality of life scores for the control group (78.32) were lower than those for the observation group (83.20), demonstrating a statistically significant difference ($P<0.05$). This shows that rapid rehabilitation nursing can significantly improve the quality of life of patients. In addition, rapid rehabilitation nursing can also enable patients to reduce the postoperative ankle recovery time, improve the prognosis of patients, and improve the satisfaction of patients with nursing care. Therefore, the concept of rapid

rehabilitation care should be actively promoted, which can promote patients' postoperative recovery and improve patients' satisfaction with healthcare personnel [11].

4. Conclusion

Rapid rehabilitation nursing is essential in the recovery of patients with ankle fractures. By implementing a range of nursing strategies, including pain management, functional exercises, psychological support, and enhancements to quality of life, the recovery speed and effectiveness can be greatly improved, while also minimizing complications. However, current research on rapid rehabilitation nursing has been limited by a small patient population in hospitals, resulting in a reduced sample size and shorter observation periods. This limitation may affect the findings and accuracy of future studies. Therefore, it is important for subsequent research to increase both the sample size and observation duration to allow for a more thorough investigation into the effects of rapid rehabilitation nursing on ankle fracture patients. This will help provide a more precise and objective framework for future clinical practices. Consequently, rapid rehabilitation care should be integrated as a vital component of the rehabilitation process for ankle fracture patients, warranting further promotion and development.

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