

# *Herpes Zoster Pain Management: Analysis of Clinical Nursing Strategies*

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**Abstract:** To explore the effect of clinical nursing in patients with herpes zoster pain and analyze its clinical application value. A total of 56 patients with herpes zoster pain were enrolled in our hospital from June 2021 to October 2021 as the study period for the study. The patients were randomly divided into two groups evenly, and 28 patients in each group were set up to conduct a randomized controlled trial, and the patients were recorded as the control group and the experimental group. Patients in the control group chose routine care while patients in the experimental group chose clinical care. After the completion of care, the pain and quality of life scores of patients in the two groups were recorded by medical staff, and the data differences between the two groups were analyzed. Compared with the control group, the pain score of the experimental group was significantly lower at every time after surgery, with statistical significance ( $P < 0.05$ ). The results of this study showed that compared with the control group, the quality of life of the experimental group was significantly better than that of the control group, and the data of the two groups were significantly different through comparative analysis ( $P < 0.05$ ). Compared with conventional care, clinical care for patients with herpes zoster pain can effectively reduce their pain and significantly improve their quality of life. This indicates that clinical nursing measures have obvious clinical application value in herpes zoster pain management, and provide a more effective pain management and quality of life improvement strategy for patients with herpes zoster. Therefore, it is recommended to widely use clinical nursing methods in herpes zoster pain management in order to improve the overall treatment effect and quality of life of patients.

## 1. Introduction

Shingles, as a common viral skin disease, is caused by varicella-zoster virus (VZV) and usually presents as a one-sided rash and pain along the nerves<sup>[1]</sup>. With the gradual decline of the body's immune function with age, the incidence of shingles increases, characterized by the reactivation of the VZV virus latent in the human nervous system under certain conditions, resulting in neuropathy and severe pain, which is not only present during the onset of shingles, but may persist in the post-neuralgia stage of the disease. It greatly affects the quality of life of patients. Pain management is one of the core components of shingles treatment<sup>[2]</sup>. Effective pain control can not only reduce the

physical discomfort of patients, but also improve their psychological state and quality of life. Among various pain management methods, clinical nursing measures become an important part of pain management due to their comprehensive and personalized characteristics<sup>[3]</sup>. Clinical care includes not only drug treatment for pain, but also non-drug treatment methods such as psychological support, health education, and lifestyle adjustment, aiming to provide comprehensive support and care for patients. In the bio-psychosocial model of pain, pain is regarded as a complex experience, which is not only affected by biological factors, but also involves multiple dimensions such as psychology, society and environment<sup>[4-5]</sup>. Therefore, the goal of pain management should not be limited to reducing the intensity of pain, but should focus on the patient's psychological state, social adaptability, and overall well-being. Based on this model, clinical nursing strives to achieve comprehensive care for patients with herpes zoster pain through various interventions<sup>[6]</sup>. The purpose of this paper is to explore the application and effect of clinical nursing in herpes zoster pain management, and to further clarify its role in improving the quality of life of patients with herpes zoster by systematically analyzing the feasibility and effectiveness of clinical nursing intervention.

## **2. Data and methods**

### **2.1. General information**

June 2021 to October 2021 was selected as the study period, and 56 patients with herpes zoster pain in our hospital were enrolled for the study. The patients were randomly divided into two groups, and 28 patients were set up in the group to carry out a randomized controlled trial, and the patients were recorded as the control group and the experimental group. In the control group, the age interval was 55-83 ( $65.3 \pm 5.1$ ) years, and the male to female ratio was (16:10). The age range of patients in the experimental group was 54-82 ( $64.6 \pm 6.0$ ) years old, and the gender ratio of patients was (15:11).

Inclusion criteria: age above 50, male and female; The clinical diagnosis is shingles, with definite rash and painful symptoms; Moderate or greater pain, requiring pain management; Willing to participate in the study and able to follow the research procedures; No other specific pain management methods were received prior to the start of the study.

Exclusion criteria: a major internal disease such as severe heart disease, liver disease, kidney disease, which may affect pain assessment or pain management; A history of neuropsychiatric disorders that may interfere with the subjective evaluation of pain; A history of allergies, especially to drugs that may be used in the study; The skin lesions were atypical, and the diagnosis of herpes zoster could not be confirmed.

No significant difference was found in the general information between the two groups, with no statistical significance ( $P > 0.05$ ).

### **2.2. Method**

In the control group, the patients received nursing care, and the nursing staff carried out routine nursing care for the patients. The nursing staff focused on collecting and comprehensively analyzing the patients' personal information, understanding the patients' gender and age status, etc., obtained the patients' nursing needs through questionnaires, and set an effective nursing plan for the patients according to the patients' condition.

Patients in the experimental group choose clinical care when receiving care, the specific way is as follows.

### **2.2.1. Personalized pain assessment and refined management**

In the quest for refined pain management, nursing professionals first adopt a comprehensive and meticulous evaluation system designed to capture every subtle change in pain. This process goes beyond the traditional visual analog Scale (VAS) or digital Rating Scale (NRS) and incorporates a comprehensive assessment of the patient's physical, psychological, and social dimensions. By engaging with patients to understand the nature of pain, its onset, duration, and its specific impact on daily life, caregivers are able to create a pain "map" that provides precise navigation for customized pain management strategies. In addition, given the subjectivity and diversity of patients' pain experiences, the care team employs innovative interactive tools, such as the pain diary app, to encourage patients to record their pain experiences in real time, enabling continuous optimization and personalization of pain management plans.

### **2.2.2. Psychological support and in-depth education**

In the shingles pain management journey, psychological support and education are not just a menu item to support treatment, but the soul of the entire care process. The nursing team knows that pain is not only a physical torture, but also a mental challenge. Therefore, they creatively designed a series of psychological support programs, such as providing immersive relaxation experiences through virtual reality (VR) technology, and conducting group discussions based on cognitive behavioral therapy (CBT) to help patients reshape their perception of pain, thereby reducing their psychological burden. In addition, the nursing staff has carefully prepared a comprehensive set of educational materials covering multiple dimensions such as disease knowledge, pain management techniques, nutrition and lifestyle adjustments, using easy-to-understand language and rich visual AIDS to ensure that each patient has a deep understanding of the disease and its management, so that they can become masters of their own health during the treatment journey.

### **2.2.3. Skin care strategies**

For shingles patients, the skin is not only a source of pain, but also the body's medium of communication with the outside world. At this point, the care team elevates skin care to a level where art and science meet. Using a selection of gentle cleansers and moisturizing products, caregivers care for every inch of affected skin to prevent infection while maintaining skin integrity and comfort. In addition, nursing specialists use the latest scientific research, such as the use of special dressings that automatically adjust the skin's breathability according to its humidity, thus creating an optimal microenvironment for healing. At each skin care session, the nurse patiently teaches the patient and family how to perform daily skin care, ensuring that they have the right skills to continue this refined care process at home.

### **2.2.4. Comprehensive drug management and optimization**

Medication management plays a crucial role in the comprehensive management of herpes zoster pain. The care team is not only the manager of the drug, but also the bridge between the patient and the doctor, the drug and the efficacy. For each patient, nursing experts carefully comb through their drug use history, accurately record the type, dosage, time of taking drugs and their effects and side effects, and form a dynamic drug management file. Using this profile, caregivers can identify problems with medication, such as drug interactions, side effects, or deficiencies in efficacy, and quickly communicate with doctors to adjust treatment plans. In addition, the introduction of drug education small classrooms, through vivid models and examples, explains the mechanism of action, administration methods, and side effects of drugs to patients, improves their understanding of drug

treatment, and makes them active participants in their own health management.

### **2.2.5. Lifestyle remodeling and guidance**

Lifestyle optimization is an important part of shingles pain management. At this point, the care team plays an important role in education and guidance. Through personalized consultation, the nursing staff has an in-depth understanding of each patient's daily living habits, including diet, sleep, physical activity, etc., and makes specific recommendations for improvement based on this. For example, for the diet, recommend foods rich in vitamins, minerals and anti-inflammatory ingredients to support the body's natural healing process; For sleep, provide good sleep hygiene advice to help patients improve sleep quality; For activities, a personalized lightweight exercise program is designed to boost body vitality and relieve pain while avoiding additional stress on the affected area. In addition, the care team also organises regular lifestyle workshops to provide a platform for patients to learn and share, through interaction and experience sharing, to stimulate patients' enthusiasm for a healthy lifestyle and motivation for continuous improvement.

### **2.2.6. Interdisciplinary collaboration and continuous care**

In the management of shingles pain, interdisciplinary teamwork is key to providing comprehensive and coherent care. The care team plays a pivotal role in this process, not only working closely with doctors, pharmacists, physiotherapists and other professionals to ensure the multi-dimensional implementation of the treatment plan, but also acting as a communication bridge between the patient and the professional team to ensure that the patient's needs and feedback are communicated and addressed in a timely manner, in addition, the care team provides continuous care services, regular follow-up phone calls, home visits, or remote medical platforms can be used.

## **2.3. Observation index**

The recovery time and pain status of all patients were evaluated after the completion of the study.

Subjective quality of life (10 points) was assessed by using the quality of life assessment table independently developed in our hospital, and the quality of life score was compared with that of nursing for 1 week, 2 weeks and 3 weeks, respectively. The higher the score, the better the quality of patient care. (2) Nursing satisfaction: Score the nursing service, nursing operation, affinity and other evaluation items, with a total score of 10. 75-85 points (generally satisfied), 86-100 points (very satisfied), less than 75 points (dissatisfied).

## **2.4. Statistical analysis**

The statistical software of this study was Spss21.00 for windows to analyze the basic data of the patients and the experimental data in this study. Statistical methods such as t test and  $\chi^2$  test were used for counting data, and the significance level was set at  $P < 0.05$ .

## **3. Result**

### **3.1. Comparison of pain scores between the two groups**

Compared with the control group, the pain score of the experimental group was significantly lower at all postoperative times, with statistical significance ( $P < 0.05$ ), as shown in Table 1.

Table 1: The differences of pain scores were compared between groups at each time after operation( $\bar{x} \pm s$ , Score)

Group	Number of cases	The first day after surgery	The second day after surgery	The third day after surgery
Experimental group	28	4.56±0.84	3.54±0.91	2.44±0.46
Control group	28	5.17±0.52	4.62±0.78	2.88±0.47
T		8.1654	8.6528	4.651
P		0.0000	0.0000	0.0126

### 3.2. Comparison of quality of life between the two groups

The results of this study showed that compared with the control group, the quality of life of the experimental group was significantly better than that of the control group, and the data of the two groups were significantly different through comparative analysis ( $P < 0.05$ ) (Table 2).

Table 2: Comparison of quality of life between the two groups (Score)

Group	Number of cases(n)	Nursing for 1 week	Nursing for 2 weeks	Nursing for 3 weeks
Experimental group	28	6.8±1.1	7.4±0.7	8.6±0.4
Control group	28	5.4±1.0	6.3±0.5	7.1±0.6
<i>t</i>	—	2.0180	5.2511	5.4894
<i>P</i>	—	0.0492	0.0000	0.0012

### 3.3. Comparison of nursing satisfaction between the two groups

The results of this study showed that in the nursing results, the scores of various nursing indicators in the experimental group were better than those in the control group, and the difference between the groups was significant ( $P < 0.05$ ) (Table 3).

Table 3: Comparison of quality of life between the two groups (Score)

Group	Number of cases(n)	For nursing services	Nursing operation	Affinity
Experimental group	28	89.58±9.65	91.62±8.45	87.96±5.48
Control group	28	74.85±4.09	79.18±5.62	80.28±3.94
<i>t</i>	—	9.1564	8.0595	9.6844
<i>P</i>	—	0.0000	0.0000	0.0000

## 4. Discuss

Herpes zoster pain, as a direct consequence of varicella-zoster virus (VZV) reactivation, not only brings severe physical discomfort, but also may lead to long-term neuralgia, which can seriously affect the quality of life of patients<sup>[7]</sup>. This pain is characterized by its persistence and difficulty in

getting relief through conventional analgesia, making pain management a top priority in the treatment of shingles. Epidemiologically, shingles mainly affects middle-aged and elderly people, especially individuals with reduced immune function<sup>[8]</sup>. Statistically, the overall incidence of shingles is about 3 to 5 cases per thousand years in the population, but this number rises significantly in older adults over 65 years of age<sup>[9]</sup>. In addition, the epidemiology of shingles pain shows that about 10% to 15% of shingles patients will develop difficult-to-treat post-herpetic neuralgia (PHN), and this proportion is as high as 20% in the elderly population.

The significant improvement in pain scores and quality of life scores in the experimental group highlights the importance of individualized and comprehensive care, a finding that not only echoes previous research, but further highlights the positive impact that clinical care can have in shingles pain management. Specifically, this study achieved effective pain control and significant improvement in the quality of life of shingles patients through the use of multi-dimensional nursing measures such as meticulous pain assessment, psychological support, skin care, drug management, lifestyle guidance and interdisciplinary collaboration. Behind this achievement is not only the effectiveness of nursing measures themselves. More importantly, these measures can comprehensively cover all aspects of pain management for patients, from physiological to psychological, from medical to social support, reflecting a whole-person and diversified nursing concept<sup>[10-12]</sup>.

In summary, clinical nursing measures have obvious clinical application value in herpes zoster pain management, and provide a more effective pain management and quality of life improvement strategy for patients with herpes zoster. Therefore, it is recommended to widely use clinical nursing methods in herpes zoster pain management in order to improve the overall treatment effect and quality of life of patients.

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