

## Prevention and clinical nursing of pulmonary complications in rheumatic immune diseases

Gao Xin, Ma Shu\*

The First Hospital of Jilin University, Changchun, Jilin, 130021, China

\*Corresponding author

**Keywords:** rheumatic immune disease; Pulmonary complications; Prevention; Clinical nursing

**Abstract: Objective:** To study the prevention and clinical nursing of pulmonary complications in rheumatic immune diseases. **Methods:** Picked out our hospital because of rheumatism and immune disease cause pulmonary complications of 100 cases of patients, the clinical data collection and investigation, statistics and what is going on pulmonary complications in patients with the number of cases and proportion of measurement in patients with nonspecific interstitial pneumonia (NSIP) and usual interstitial pneumonia (UIP), machine pneumonia (OP), lymphocytic interstitial pneumonia (LIP), the cases of acute interstitial pneumonia (AIP), at the same time the basis of combination of nursing clinical indicators and the hospital requirements, efficient measurement on two groups of care, treatment of late has been carried out on the patient, The overall satisfaction of patients was calculated. The control group received routine nursing ward, the observation group received preventive nursing mode. **Results:** The rate of pneumonia in the observation group was lower than that in the control group, and the overall effective rate in the observation group was higher than that in the control group. There was significant difference between the two groups ( $P < 0.05$ ). **Conclusion:** Rheumatic immune diseases should be prevented from pulmonary complications as soon as possible, and through the preventive analysis of nursing, timely and determined clinical nursing measures should be taken to reduce the incidence of complications, improve the effectiveness of clinical treatment, and get satisfactory feedback from patients.

### 1. Introduction

Rheumatoid immune diseases are common, basic performance is the problem of pulmonary complications, clinically to assess and understand the patient's respiratory symptoms, but nursing intervention as soon as possible, and the doctor communication blocking measures, early diagnosis and nursing intervention on patients prognosis effects cannot be ignored, pulmonary complications may also cause death, its incidence is higher also, should be combined with the common type of rheumatoid immune disease, pulmonary complications, analysis and control of the appropriate treatment, take proactive nursing intervention measures to improve the effect of nursing care.

### 2. Materials and Methods

#### 2.1 General Materials

A total of 100 patients with pulmonary complications caused by rheumatic immune diseases were selected from our hospital. In the collection and investigation of clinical data, the control group received ward routine nursing, while the observation group received preventive nursing. From the aspect of gender distinctions, the control group have 9 male and 41 female, observation group have 12 male and 38 female; from the aspects of age range, control group age height wandering in the 19 ~ 76, observation group age level in 18 to 79 years old; to distinguish from the average age of the statistics, the control group was ( $49.62 \pm 3.28$ ) years, average observer group average calculation result was ( $50.39 \pm 7.15$ ). In this investigation, there were 12 cases of rheumatoid arthritis, 15 cases of ankylosis spondylitis, 11 cases of systemic lupus erythematosus, 13 cases of osteoarthritis, 11 cases of gout and 38 cases of primary sjogren's syndrome. None of the

patients had serious pulmonary complications when they were admitted to the hospital, and the complications gradually appeared within one week after admission. There was no deviation in the statistical data.

## 2.2 Methods

Ward routine care: avoid the excessive use of the patient's joints, especially the elderly who are relatively fragile joints, etc., feel joint pain should be deferred action, understand the patient's weight, ask obese patients to control weight to reduce joint burden, overweight should be appropriate control diet. Strengthen the health control for ward, for patients with peripheral and other disinfection cabinet, the patient should wear face mask when going out, patients in the ward and in close communication with ward people, demanding patients wearing masks, sprayed disinfectant on the floor and clean, pay attention to patients with warm warm, avoid catch cold joints, can be accompanied by family members, for patients with joints, massage, hot compress, such as the hands rub after thermal cover in patients with joints, or joint pain in patients, the use of warm paste take heat treatment, etc. Monitoring and maintenance of normal immune homeostasis: blood routine, immunoglobulin level, complement level, T\B lymphocyte level, NK cell level, prevention of infection in high-risk population. Patients with pain care and follow-up work.

Preventive care:

(1) health education: Current network developed easy to blind patients of audio-visual, small ads, even a television AD, there will be a "cure rheumatoid" false statements, such as grasping, let patients cognition of non-organ-specific rheumatological disorders, are more likely to ignore the concurrent town lung problems, more convincing way to the medical diagnosis and treatment for patients, the compliance of clinical early detection and intervention way, butt down a series of nursing intervention, provides knowledge, should pay attention to health education after admission, will obscure DMARDs, TNF alpha inhibitors, and other professional nouns into easy-to-read information, At the same time, the effective speed and price of various drugs are introduced, so as to facilitate patients to choose according to their disease urgency and affordability of drugs. For example, traditional DMARDs can reduce the disease activity, but the effect is slow, and the efficacy can only be evaluated after taking it for 3 months. TNF- a inhibitors are designed to meet the unmet therapeutic needs of traditional DMARDs. They work quickly, are more effective in combination, improve symptoms, prevent imaging progression, and are clinically proven for safety. Through drug mechanism and national health policy, etc., corresponding to the patient know that the drug expenses, such as rheumatoid immune disease according to, also let patients come to realize that the treatment of rheumatoid immune diseases is a long-term process, slowly to accept the reality of disease treatment, not to pursue the rapid cure, there is no treatment for high expectations, in order to avoid the long time of repeated treatment and check the more lost, at the same time to maintain the immune system is introduced in this paper the importance of "dynamic balance", show that clinical common pulmonary complications and conditions, to prepare for long-term treatment of mental patients.

(2) Lung function training: labial contraction breathing: after 30 minutes of calm, the patient was placed in the semi-decumbent position with knee flexion. Exhale through the mouth, inspiratory via the nose, contract lip when exhaling, abdominal muscle is contracted forcibly at the same time, abdominal wall is sunken subsequently, the gas inside right now lung passes the mouth slowly exhale, when inspiratory abdominal muscle is loosened, make abdominal bulge as far as possible. The time ratio of exhalation to inspiration is 2:1, about 10 breaths per minute, 10 to 15 minutes each time, 2 to 3 times a day. Balloon blowing: choose a balloon with a capacity of 800~1000ml, and hold the balloon after deep inspiration until the patient cannot breathe in. Try to blow the air in the lung into the balloon, and repeatedly blow up the balloon several times to make the balloon reach a diameter of 5~30cm. 10-15min/time, 2-3 times a day. Body function training: mainly includes gymnastics bar chest expansion movement, body rotation movement. Under the armpit clip gymnastic stick, when inspiratory and expiratory respectively lift and descend gymnastic stick to undertake expand bosom motion: inspiratory or expiratory while undertaking right and left side

turns about motion. Each training lasted 15 minutes, 2 times a day, 5 days a week.

(3) psychological intervention: Some patients due to their long duration, and then listen to rumors, think the disease cure, in a hospital is a waste of money, about his presidency, or does not recognise the mode of hospital medical, always switch to a different hospital make a diagnosis and give treatment, and patients with early performance is good, the pain eased, abnormal pulmonary complications, hidden began, according to the doctor's advice to take drug the patients psychological appeared in the process of all kinds of changes, should be timely communication with patients, patients psychological understanding of the real ideas, break the "incurable disease", or "die of cancer" rumors, nursing staff should obtain hospital rheumatism immunity diseases under the pulmonary complications, Adhere to treat and cure the case, let the victim, but in the patient's consent to record video, talk about their own experiences to heal, also can let a hospital patients communicate with each other their own situation, has the confidence to treatment, especially for treatment of gradually became seriously ill patients, instead, they may think the rule is heavier, the hospital treatment capacity is insufficient, or their disease has not saved, should be timely and reduce adverse psychological in these patients, that some of their own in the treatment of patients with no attention, but the doctors and nurses have noticed improvement, such as itself early guess some complications did not happen, It explains the proper prevention and the importance of long-term treatment in a hospital, so that doctors can understand the cause and effect of patients' disease, so as to avoid misdiagnosis. Ask the individual feelings of patients, such as young women want to get pregnant, do not want to take medicine, elderly people do not want to spend money, should do the corresponding communication care.

## 2.3 Observation Indexes

Statistics and what is going on pulmonary complications in patients with the number of cases and proportion of measurement in patients with nonspecific interstitial pneumonia (NSIP) and usual interstitial pneumonia (UIP), machine pneumonia (OP), lymphocytic interstitial pneumonia (LIP), the cases of acute interstitial pneumonia (AIP), at the same time the basis of combination of nursing clinical indicators and the hospital requirements, efficient measurement on two groups of care, treatment of patients with late proforma investigation, statistics of the patient's overall satisfaction.

## 2.4 Statistical Treatment

Excel software such as medical office under the discrete data statistics and classified count ( $X^2$  test, is used to infer that two or forming than there is difference between the overall rate), matching measurement data comparison between samples or groups (t test, observe the differences of this group of samples with overall),  $\bar{x}$  (average)  $\pm s$  (Standard Deviation) said mean add and subtract Standard Deviation, the small probability event of statistical quality control ( $P < 0.05$  said have significant difference (one hundred trials, the frequency is less than 5 times).

## 3. Results

Table 1 comparison of the incidence of complications between the two groups

Groups	n	NSIP	UIP	OP	LIP	AIP
the observation group	50	2(4%)	1(2%)	1(2%)	1(2%)	2(4%)
the control group	50	3(6%)	1(2%)	2(4%)	2(4%)	1(2%)
$X^2$	-	5.263	4.125	4.263	4.178	2.561
P	-	<0.05	<0.05	<0.05	<0.05	<0.05

Table 2 comparison of prevention and nursing efficiency of pulmonary complications in rheumatic immune diseases between the two groups

Groups	n	effective	apparent	no effects	total effective rate
the observation group	50	32(64%)	15(30%)	3(6%)	47(94%)
the control group	50	29(58%)	13(26%)	8(16%)	42(84%)
$X^2$	-	4.236	4.185	3.274	4.125
P	-	<0.05	<0.05	<0.05	<0.05

Table 3 comparison of patients' satisfaction during treatment between the two groups [n(%)]

Groups	n	satisfaction	general satisfaction	dissatisfaction	the satisfaction rate
the observation group	50	26	22	4	46(92%)
the control group	50	21	20	9	41(82%)
X <sup>2</sup>	-			7.159	
P	-	<0.05	<0.05	<0.05	<0.05

#### 4. Discussion

Wind and dampness can induce or aggravate the abnormalities of the immune system in the patient's body, and then a series of lung problems appear. Clinically, patients are often seen with cough, expectoration, progressive dyspnea and fatigue. When the patient after the preliminary stability, drug itself for relief of lung function effect is limited, the need to strengthen intervention in the nursing care, early lung function training, the above several lung function exercise method, as the main measures of early nursing intervention, the other with psychological intervention and health education, can make patients to be prepared for a long-term treatment, psychologically accept lung problems, and actively with the help of the nurses of the exercise, improve lung, improve the quality of life of patients.

#### References

- [1] He Ye. Prevention and clinical nursing of pulmonary complications in rheumatic immune diseases [J]. China Health Industry, 2018,15 (23) : 47-48.
- [2] Wei Haimei. Prevention and clinical nursing of pulmonary complications in rheumatic immune diseases [J]. Journal of Integrated Chinese and Western Medicine Cardiovascular Diseases, 2017,5 (23) : 124-125.
- [3] Zhang Nan. Prevention and clinical nursing of pulmonary complications in rheumatic immune diseases [J]. Journal of Modern Medicine and Health Research, 2018,2 (6) : 131.
- [4] Sun Hanzhen. Prevention, treatment and nursing of pulmonary complications in rheumatic immune diseases [J]. Chinese Medical Guide, 2013(20):351-352.
- [5] Su Ruifang. Prevention, treatment and nursing of pulmonary complications in rheumatic immune diseases [J]. China Practical Medicine, 2014(33):195-195.
- [6] Li Qiuli. Prevention and clinical nursing of pulmonary complications in rheumatic immune diseases [J]. Journal of Massage and Rehabilitation Medicine, 2017, 8(15):64-65.
- [7] Zhang Yue. Prevention, treatment and nursing of pulmonary complications in rheumatic immune diseases [J]. Journal of Contemporary Medicine, 2017, 23(31):158-159.
- [8] Dong Juanmei. Prevention and nursing observation of pulmonary complications in rheumatic immune diseases [J]. World Latest Medical Information Digest, 2017(37):212-213.
- [9] Zhang Ni, Li Xin, Zhang Le, et al. Clinical effect of clinical nursing intervention on patients with pulmonary complications in rheumatic immune diseases [J]. Modern Health Preservation (Second Half Edition), 2019(5):234-235.
- [10] Yuan Yong. Experience on prevention, treatment and nursing of pulmonary complications in rheumatic immune diseases [J]. Chinese Medical Guide, 2017, 15(19):223-224.