

# Analysis of the Value of Health Education in the Treatment of Ankylosing Spondylitis with Adalimumab

Yanhui Jia, Yong Du, Qiang Wang, Yingjie Zhang, Zhimin Wang

Department of Rheumatology and Immunology, Affiliated Hospital of Hebei University, Baoding 071000, China.

---

**Abstract:** Objective: To analyze the role of health education in patients with ankylosing spondylitis during the treatment with adalimumab. Methods: From March 2021 to November 2022, 68 patients in our hospital were selected as study samples, and randomly divided into control group (34 cases, routine nursing) and observation group (34 cases, routine nursing+health education). Analyze the patient's recovery. Results: Compared with the quality of life of the two groups during treatment, the observation group was higher than the control group ( $P<0.05$ ). Compared with the two groups, the awareness rate of disease content in the observation group was higher than that in the control group in terms of disease basic knowledge, hazard awareness, examination and treatment, and prevention of complications ( $P<0.05$ ). Compared with the treatment compliance and nursing satisfaction of the two groups, the observation group was higher than the control group ( $P<0.05$ ). Conclusion: Timely health education for patients with ankylosing spondylitis during the treatment with adalimumab can improve the quality of life of patients during the treatment, increase the disease awareness rate of patients, and improve the treatment compliance and nursing satisfaction of patients.

**Keywords:** Health Education; Adamumab; Ankylosing Spondylitis

---

## Introduction

Ankylosing spondylitis is a chronic inflammatory disease that mainly affects the sacroiliac joint, spine, soft tissue adjacent to the spine and peripheral joints, and can also be accompanied by extra-articular manifestations. The patients have a long treatment cycle and poor treatment compliance, which may eventually lead to spinal deformity and rigidity, and have a great negative impact on the quality of life of patients<sup>[1-2]</sup>. The early treatment of adalimumab can improve the prognosis of the disease to a large extent, but the long-term regular diagnosis and treatment has an equally important impact on the progress of the disease. In order to effectively improve the patient's compliance and improve the prognosis, we should do a good job in nursing during the treatment. This study focuses on the analysis of the role of health education in the care of patients with ankylosing spondylitis treated with adalimumab.

## 1. Data and methods

### 1.1 General information

From March 2021 to November 2022, 68 patients in our hospital were selected as study samples, and randomly divided into the control group (34 cases, carrying out routine nursing) and the observation group (34 cases, routine nursing+health education). In terms of patient composition, there were 30 males and 4 females in the control group, aged from 27 to 41 years, with an average of  $(31.05 \pm 1.52)$ . In the observation group, there were 31 males and 13 females, aged from 26 to 40 years, with an average of  $(30.91 \pm 1.46)$ . Compared with the basic data,  $P>0.05$ .

## 1.2 Method

During the treatment of the control group, the nursing staff carried out various nursing operations in accordance with the conventional clinical nursing regulations, patiently explained the current treatment plan to the patients, and did a good job in the routine diet guidance and life guidance of the patients during the treatment, requiring the patients to strictly follow the medical advice during the treatment. When nursing the observation group, health education was carried out: (1) disease knowledge education. In the process of communicating with patients, nursing staff should accurately evaluate the patients' understanding of ankylosing spondylitis and the current clinical treatment plan. Patiently explain the predisposing factors of the disease and the clinical research progress of the disease to patients in a way that is easy to understand. Promote patients to have a clear understanding of their own disease characteristics. Inform the patient to cooperate with the doctor to carry out all aspects of treatment, and naturally recover as soon as possible. (2) Health education at drug use level. Due to the long treatment time of ankylosing spondylitis, the nursing staff should patiently explain the current treatment plan, medication method and treatment period to the patient during the treatment. The adverse reactions that may occur in the course of medication were explained to the patients in detail in combination with the physical conditions of the patients. Inform the patient that during the treatment with adalimumab, it can promote the rapid improvement of pain and other symptoms, achieve the purpose of alleviating pain, and help the patient's joint function improve rapidly. In the course of medication, if the patient has adverse reactions, including allergy, infection, etc., it is necessary to inform the doctor in time. (3) Mental health education. Because ankylosing spondylitis has a great negative impact on the normal life and work of patients, during the treatment period, patients have serious negative emotions such as tension, anxiety and fear due to their worries about their recovery. In the process of communicating with patients, nursing staff should accurately evaluate the psychological status of patients, conduct targeted psychological counseling, and inform patients of the effectiveness of the current treatment plan, so as to achieve the purpose of improving the negative emotions of patients. In addition, it can guide patients to do some things they like during recovery, such as reading, reading, etc., and transfer their attention to alleviate negative psychology. (4) Health education at the life level. During the rehabilitation of patients, it is necessary to help them develop good living habits and achieve scientific diet. Reduce the intake of spicy, greasy, raw, cold and hard foods, and reduce the irritation to the patient's digestive tract. Properly increase the intake of protein and vitamin rich foods, including fish, fruit, vegetables, etc. (5) Health education in functional exercise. During the treatment, patients should be guided to maintain good exercise habits. During bed rest, try to choose low pillows or not to use pillows, mainly in supine position, and try to reduce semi-lying position. After the clinical corresponding symptoms are relieved, the patient can be guided to carry out appropriate activities, including passive and active activities, and the patient can be guided to actively carry out chest expansion or deep breathing, so as to improve the lung function.

## 1.3 Observation indicators

In this study, the quality of life of patients during treatment needs to be analyzed and assessed with SF-36 scale<sup>[3]</sup>. The awareness rate of patients' disease knowledge during the treatment period was counted, including basic knowledge of disease, hazard awareness, examination and treatment, and prevention of complications. Statistics of patients' treatment compliance and nursing satisfaction during treatment.

## 1.4 Statistical methods

The data related to the two groups were processed with the help of SPSS20.0. The percentage was expressed as the counting data, and the chi-square test was expressed as the mean  $\pm$  standard deviation for the measuring data. The difference between t test and  $P < 0.05$  was statistically significant.

## 2. Results

## 2.1 Quality of life analysis of the two groups

Compared with the quality of life of the two groups during treatment, the observation group was higher than the control group ( $P < 0.05$ ), as shown in Table 1 below.

Table 1 Quality of life analysis of two groups ( $\bar{x} \pm s$ )

Group	Number of cases	Energy		Vigour		Social functions	
		Before intervention	After intervention	Before intervention	After intervention	Before intervention	After intervention
Observation group	34	75.05±2.62	92.15±2.02	74.55±2.34	93.45±2.08	76.89±2.05	91.63±2.72
Control group	34	75.11±2.71	82.42±2.11	74.62±2.26	82.63±2.61	76.91±2.17	84.05±2.42
<i>t</i>	-	1.525	13.425	1.142	12.425	1.858	14.425
<i>P</i>	-	0.634	0.001	0.725	0.001	0.725	0.001

## 2.2 Statistics of awareness rate of disease contents in the two groups

Comparing the content awareness rate of the two groups, the observation group was higher than the control group in terms of disease basic knowledge, hazard awareness, examination and treatment, and complication prevention ( $P < 0.05$ ), as shown in Table 2 below.

Table 2 Statistics of awareness rate of disease content in the two groups [n, (%)]

Group	Number of cases	Basic knowledge of disease	Hazard awareness	Check and treatment	Prevention of complications
Observation group	34	32 (94.12)	31 (91.18)	33 (97.06)	32 (94.12)
Control group	34	27 (79.41)	27 (79.41)	26 (76.47)	28 (82.35)
$\chi^2$	-	10.241	8.425	11.253	11.253
<i>P</i>	-	0.001	0.001	0.001	0.001

## 2.3 Analysis of compliance and nursing satisfaction of the two groups

In terms of treatment compliance, the observation group was 97.06% (33/34), and the control group was 82.35% (28/34). The contrast  $X^2=8.028$ ,  $P=0.001 < 0.05$ . In terms of nursing satisfaction, the observation group was 94.12% (32/34), and the control group was 79.41% (27/34). The comparison  $X^2=10.928$ ,  $P=0.001 < 0.05$ .

## 3. Discussion

Ankylosing spondylitis is a chronic immune disease characterized by tendinitis and ligament attachment. Early symptoms such as lumbosacral pain and morning stiffness can occur, and continuous development often leads to spinal deformity and rigidity, which seriously affects the quality of life of patients [4]. The treatment cycle of patients is long. During the treatment with adalimumab, the symptoms of most patients can be quickly relieved to control the disease progress [5]. However, during the treatment, the disease itself has a great negative impact on the physiological and psychological aspects of patients. Many patients have negative emotions such as tension and anxiety, and lack awareness of the importance of long-term treatment and follow-up, which is easy to lead to interruption of treatment and disease progress.

Carry out health education in time during the treatment of patients. Accurate assessment of patients' understanding of their own diseases and treatment programs, and targeted health education can promote patients to have a scientific understanding of ankylosing spondylitis. In the process of mental health education, patients can be relieved of their negative emotions and maintain a positive and optimistic mental state during treatment<sup>[6]</sup>. In the process of life level health education, it can help patients develop good living habits during the treatment process, achieve scientific diet, work and rest on time, and play a very important role in promoting their own recovery<sup>[7]</sup>. It also guides patients to actively carry out functional exercise and promote the recovery of joint function of patients, which plays an extremely important role in improving the quality of life of patients during treatment<sup>[8]</sup>. In this study, the patients in the observation group used health education during the treatment of adalimumab, which can improve the quality of life of the patients during the treatment, increase the rate of mastering disease knowledge, help the patients maintain good compliance behavior during the rehabilitation process, and also improve the satisfaction of the patients with clinical nursing work, which also has a very important role in helping the patients recover.

Based on this study, patients with ankylosing spondylitis can carry out health education in time during the treatment of adalimumab to help them increase their awareness of their own diseases, improve their compliance, improve their prognosis and improve their quality of life.

## References

[1] Yang LQ, Lei JH, Gao S. Effect of Health Education based on Empowerment Theory on Self-efficacy and Quality of Life of Patients with Ankylosing Spondylitis [J]. *Clinical Medical Research and Practice*, 2022,7 (21): 152-154+192.

[2] Si YJ. The Impact of Internet Plus Health Education on DMSM Scores of Patients with Ankylosing Spondylitis under Schramm's Two-way Communication Theory [J]. *Today Pharmacy*, 2021,31 (07): 557-560.

[3] Feng XH, Wang WX. The Effect of Multidisciplinary Collaborative Rehabilitation Education on the Compliance and Quality of Life of Patients with Ankylosing Spondylitis [J]. *Contemporary Nurses (last ten-day)*, 2021,28 (06): 79-82.

[4] Cao LY. Effect of Systematic Health Education on Joint Function and Quality of Life of Patients with Ankylosing Spondylitis [J]. *Contemporary Nurses (last ten-day)*, 2021,28 (05): 156-157.

[5] Liu DL, Long YH. The Effect of Traditional Chinese Education on Self-perception and Quality of Life of Patients with Ankylosing Spondylitis [J]. *Psychological Monthly*, 2020,15 (11): 12-13+15.

[6] Hu XF, Dai XL, Zheng C. Effect of WeChat Platform Continuous Care on Treatment Compliance and Functional Status of Discharged Patients with Ankylosing Spondylitis [J]. *Contemporary Nurses (Midten-day)*, 2020,27 (05): 125-127.

[7] Zhong Y, Dai MH, Ma H. Meta-analysis of the Effect of Continuous Nursing on the Quality of Life and Psychological Status of Patients with Ankylosing Spondylitis [J]. *Evidence-based Nursing*, 2020,6 (02): 97-104.

[8] Nan H, Jiang S, Li XL. Study on the Exploration and Effect of Chronic Disease Management Model in Patients with Ankylosing Spondylitis [J]. *Jilin Medical Journal*, 2019, 40 (07): 1650-1652.

Project: Clinical study of intestinal microbial changes in patients with AS treated with adalimumab (2241ZF333)

About the author: Yanhui Jia, female, Han, Baoding, Hebei. Head nurse of rheumatology department, nurse-in-charge, The Affiliated Hospital of Hebei University, Research direction: Nursing care

Corresponding author: Yingjie Zhang