Analysis of the Effect of Nursing Intervention on Clinical Indicators and Psychological State of Patients with Autoimmune Hepatitis

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Abstract: Objective: In order to analyze the effect of nursing intervention in autoimmune hepatitis (AIH) after hormone therapy. Methods: A total of 98 AIH patients admitted to our department from January 2019 to December 2021 were selected and randomly divided into two groups: 47 patients received routine care after hormone therapy as the control group, and the remaining 51 patients received personalized nursing intervention after hormone therapy as the experimental group. Results: There was a significant difference between the two groups after intervention. Compared with the control group, the liver function of the experimental group recovered significantly. Anxiety and depression were significantly reduced, and the scores were different ($P < 0.05$). Compliance was significantly improved and score difference was significant ($P < 0.05$). Conclusion: The negative emotions of AIH patients in anxiety, depression and other aspects can be effectively improved by nursing intervention, and patients' treatment compliance is also effectively increased, which has good clinical value.

***Keywords*:** autoimmune hepatitis, hormones, intervention, nursing

Autoimmune hepatitis (AIH) is an autoimmune disease that mainly affects young women [1] The incidence rate is low, and the clinical manifestations are complex, the disease is easy to repeat, and the patient will have complex psychological reactions such as tension, anxiety, fear, etc., which will reduce the patient's treatment compliance, seriously affect the patient's psychological and physical health, and delay the treatment of the disease. At present, individualized nursing intervention is the main way to assist glucocorticoids in the treatment of AIH [2], mainly to improve the patient's medication compliance, assist clinical treatment, improve biochemical indicators such as liver function, and enable patients to achieve a good psychological and physical state, which is more conducive to improving the treatment effect of patients. Therefore, it is necessary for us to improve the psychological state of AIH patients through corresponding individualized nursing interventions [3, 4] The nursing effect of 98 patients with autoimmune hepatitis after hormone therapy in the liver disease center of our hospital is analyzed as follows.

1. Clinical data

1.1 General information

From January 2019 to December 2021, 98 patients with AIH were treated in our department and were randomly divided into two groups. The control group was aged 12-68 years, with an average age of (45.8±12.3) years, including 4 males and 43 females, totaling 47 cases; the experimental group was aged 11-64 years, with an average age of (46.9±11.8) years, including 5 males and 43 females 46, with a total of 51 cases. There was no difference in general data between the two groups of patients, P value>0.05. All diagnoses were in accordance with the simplified diagnostic scoring system developed by the International AIH Group (IAIHG) in 2008 [5, 6].

1.2 Storage and row standards

Inclusion criteria: ① Patients diagnosed with AIH and requiring long-term hormone therapy; ② aged between 18 and 60 years old.

Exclusion criteria: ① Patients who cannot receive hormone therapy; ② Patients with mental illness; ③ Patients with severe organ damage; ④ Patients with severe infection.

1.3 Nursing interventions

Control group: The routine nursing method was adopted, and nursing was mainly carried out in the aspects of diet, health education and medication guidance.

Experimental group: On the basis of routine care, individualized care for different patients was implemented. There are two main aspects:

During hospitalization: ①Comprehensive scoring of the patient's disease status, psychological status, clinical manifestations and various inspection indicators, individualized communication with different patients according to the scoring results, understanding and recording of the patient's psychological status. ②When AIH patients choose to take hormone therapy, they should be informed of possible adverse reactions; according to the law of human corticosteroid secretion, patients are required to choose morning medication as much as possible during the hormone medication process. ③ When the patient's mood fluctuates significantly, the nursing staff should conduct corresponding psychological intervention in time, increase the frequency of communication with the patient, answer the patient's problems during treatment in a timely manner, and encourage the patient to actively cooperate with the doctor for treatment. ④Do a good job in the care of the digestive tract of the patient, observe the digestive tract reaction of the patient after the medication, urge the patient to eat less and eat more frequently during the medication process, record the color of the patient's stool, and use the sucralfate to the patient according to the doctor's instructions. The drug can reduce the stimulation of the drug to the gastric mucosa of the patient and reduce the probability of the occurrence of peptic ulcer in the patient.

After discharge: ① Keep close contact with the patient's family, explain the etiology, clinical manifestations and treatment of AIH disease to the patient's family in an easy-to-understand way, enhance the patient and family's awareness of AIH disease, and advise family members of AIH disease Maintain a positive attitude to influence patients, encourage patients, and enhance patients' self-confidence in fighting the disease, so as to reduce patients' anxiety and depression and other negative emotions. ② After one week, one month, and three months of treatment, the patients will be followed up by telephone or home to inquire about the patient's condition recovery and medication compliance, as well as assess the patient's psychological and physical conditions, and help the patient establish further expectations based on the patient's status.

1.4 Observation items and standards

First, the clinical indicators of the two groups of patients were compared, such as biochemical indicators of liver function: alanine aminotransferase (ALT), aspartate aminotransferase (AST), and total bilirubin (Total bilirubin, ALT). TBIL), direct bilirubin (DBIL), total bile acid (TBA) and glutamyl transpeptidase (GGT), to see the improvement of liver function in patients after individualized care intervention .

Secondly, the anxiety and depression of the two groups were compared, and the self-rating depression scale (SDS) and self-rating anxiety scale (Self-Rating Anxiety Scale, SAS) were filled out. There are two scoring systems, and the scores are positively correlated with the degree of negative psychological emotions of patients. The higher the score, the poorer the emotional stability of the patient, the more likely to have symptoms such as anxiety or depression. Both are assessed by points, with a total SDS score of 53 points. Depression degree=total score/80, below 0.5 is no depression, 0.5-0.59 is mild to mild depression; 0.6-0.69 is moderate to severe; 0.7 or more is severe depression. The total SAS score is 50 points, with higher scores indicating more severe anxiety symptoms. Generally less than 50 points are normal, 50-60 points are mild, 61-70 points are moderate, and those above 70 are severe anxiety.

Finally, the patient's compliance evaluation after individualized nursing intervention, with a total score of 100 points. The assessment methods mainly include patients' regular medication, adherence to functional exercise, daily routine and rest habits. It is mainly carried out by means of a questionnaire.

1.5 Statistical methods

SPSS 26.0 software was used for data analysis, continuous variables were expressed as mean ± standard deviation, and t-test was used to compare differences between groups; chi-square test was used to analyze categorical variables and described by frequency and percentage.

2. Results

2.1 Comparison of clinical indicators

There was no significant difference in liver function indexes between the two groups before intervention ($P>0.05$). The ALT, AST, TBIL, DBIL, TBA and GGT of the two groups of patients were significantly decreased after nursing intervention, and the difference was statistically significant ($P<0.05$). The improvement of liver function test indicators after the intervention was better.

2.2 Comparison of anxiety and depression

Both groups had good clinical results. There was no significant difference in SAS and SDS scores between the two groups before intervention ($P>0.05$). After intervention, there were significant differences in SAS and SDS scores between the two groups ($P<0.05$). In addition, the SAS and SDS scores of the patients after the implementation of individualized

nursing intervention were significantly lower than those of the routine nursing group (P<0.05) (see Table 2). The depression and anxiety of the patients were improved.

Table 1. Comparison of the changes of each index before and after nursing intervention in the two groups of patients (X±S)

Indicator	Experimental group (n=51)		Control group (n=47)	
	Before Intervention	After Intervention	Before Intervention	After Intervention
ALT(U/L)	423.63±956.39	69.8±68.13	420.53±616.33	83.11±119.82
AST(U/L)	382.51±892.46	77.92±65.86	379.32±536.76	93.82±107.99
TBIL(μ mol/L)	98.7±80.38	30.81±23.01	99.38±109.99	49.54±66.23
DBIL(μ mol/L)	54.27±46.29	13.76±17.47	58.42±69.88	27.69±42.77
TBA (μ mol/L)	87.38±72.01	42.96±59.95	88.25±80.42	56.44±68.26
GGT(U/L)	176.37±153.72	107.03±114.81	178.13±175.26	164.36±208.58

Note: ALT: alanine aminotransferase; AST: aspartate aminotransferase; GGT: glutamyl transpeptidase; TBIL: total bilirubin; DBIL: direct bilirubin; TBA: total bile acids

Table 2. Comparison of SAS and SDS scores between the two groups before and after intervention (X±S)

Indicator	SAS score		SDS score	
	Before Intervention	After Intervention	Before Intervention	After Intervention
Experimental group (n=51)	52.16±7.64	39.01±6.01	53.74±7.14	38.91±7.10
Control group (n=47)	51.60±9.28	47.19±9.13	54.21±7.53	46.83±8.71

Note: SAS: Self-rating Anxiety Scale; SDS: Self-rating Depression Scale

2.3 Comparison of patient compliance

As shown in Table 3, the compliance of patients in the experimental group after nursing intervention was significantly improved (P<0.05). It is mainly reflected in patients taking regular medication, insisting on functional exercise, and insisting on obedience to treatment.

Table 3. Adherence Comparison [n(%)]

Group	n	Regular medication	Adherence to functional exercise	Good treatment compliance
Experimental group	51	49(96.0)c	46(90.2)c	46(90.2)c
Control group	47	39(83.0)	45(88.3)	32(68.1)

Note: Compared with the control group, cP<0.05

3. Discussion

AIH is a relatively rare autoimmune liver disease in clinical practice. Due to the complex clinical manifestations, repeated disease, unclear diagnosis, and easy misdiagnosis and misdiagnosis, the treatment effect of patients is poor, the recurrence rate is high, and severe cases progress to liver cirrhosis. Even liver transplantation [7]. Psychological disorders in patients during diagnosis and treatment are also one of the main reasons for the unsatisfactory treatment effect of AIH patients [8], resulting in a decrease in patients' treatment compliance [9]. Patients lack AIH-related knowledge and may reduce or discontinue medication during and after treatment, which may easily lead to disease aggravation or recurrence. Therefore, nurses should communicate with patients in a timely manner, explain the severity of the disease and the treatment process, which will help reduce psychological barriers such as tension and anxiety in patients, and increase patient compliance. In addition, nurses should supplement AIH-related knowledge with patients and their families, and encourage patients to perform self-care, so as to establish a positive and optimistic attitude for patients, and improve their enthusiasm for treatment. The clinical manifestations and laboratory tests of patients before and after hormone therapy should be closely observed. In addition, it is necessary to observe the side effects of the drug [10, 11] and prevent them in time. Inform the patient in detail of the name, dosage, medication time, and medication method of the hormone, so that the patient can know what to do, which will help stabilize the mood of the patient and their family members, and more actively cooperate with the treatment. Before leaving the hospital, health education and medication guidance should be given to patients [12], and patients should be informed of taking medication on time, not to reduce or stop medication by themselves, and to let patients know the precautions after medication, such as rest, diet, etc., and regular review. Thereby improving the patient's medication compliance and improving the patient's condition.

Therefore, we believe that the negative emotions of AIH patients can be improved, and treatment compliance can also be effectively improved, which can be obtained through individualized care interventions.

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