

Application Value of High-Quality Nursing Intervention in Patients with Cirrhotic Ascites

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Abstract: *Objective:* To study the application value of high-quality nursing intervention in patients with cirrhotic ascites. *Methods:* From February 2018 to February 2020, 80 patients with cirrhotic ascites, treated in Yancheng No.1 People's Hospital, were selected as the subjects for this study. The patients were divided into two groups based on the type of nursing intervention: a routine group and an observation group, with 40 cases in each group. The routine group received routine nursing, and the observation group received high-quality nursing intervention on the basis of routine nursing. The nursing effects and adverse reactions of the two groups were observed and compared. *Results:* The total effective cases in the observation group were 39 cases, with a total effective rate of 97.5%; the total effective cases in the routine group were 33 cases, with a total effective rate of 82.5%. The total effective rate of the observation group was significantly higher than that of the routine group ($P < 0.05$). In the routine group, there were eight cases of adverse reactions, in which the incidence of adverse reactions was 20.0%, whereas there were only two cases of adverse reactions in the observation group, in which the incidence of adverse reactions was 5.0%. The incidence of adverse reactions in the observation group was significantly lower than that in the routine group ($P < 0.05$). *Conclusion:* The application of high-quality nursing intervention in patients with cirrhotic ascites can improve the nursing effect and reduce the occurrence of adverse reactions; thus, it should be popularized in clinical settings.

Keywords: High-quality nursing intervention; Cirrhotic ascites; Adverse reactions; Nursing effect

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1. Introduction

Cirrhosis is a common clinical chronic progressive liver disease, and cirrhotic ascites is one of the common complications of cirrhosis. The treatment of cirrhotic ascites mainly includes limiting the intake of water and sodium, giving diuretics, anti-infectives, etc. As the disease is difficult to cure and known to have a long course, it will seriously affect the physical and mental health of patients [1]. Therefore, reasonable nursing intervention is necessary in addition to treatment. A total of 80 patients with cirrhotic ascites, treated in Yancheng No.1 People's Hospital, were selected as subjects to study the application value of high-quality nursing intervention in patients with cirrhotic ascites.

2. Materials and methods

2.1. General information

From February 2018 to February 2020, 80 patients with cirrhotic ascites, treated in Yancheng No.1 People's Hospital, were included in this study. Patients who received routine care were included in the routine group, while those who received high-quality nursing intervention on the basis of routine care were included in

the observation group. In the routine group, there were 15 patients with mild ascites, 13 patients with moderate ascites, and 12 patients with severe ascites. In the observation group, there were 16 patients with mild ascites, 14 patients with moderate ascites, and 10 patients with severe ascites. There was no significant difference between the two groups ($P > 0.05$). This study has been approved by the Ethics Committee of Yancheng No. 1 People's Hospital.

Inclusion criteria: (1) patients diagnosed with cirrhotic ascites; (2) patients who are in good mental state and have self-care ability; (3) patients and their families who have been informed of the study and have signed the consent form. Exclusion criteria: (1) patients with severe renal dysfunction; (2) patients who are unable to care for themselves; (3) patients with poor compliance and unable to cooperate with the nursing intervention.

2.2. Methods

2.2.1. Prognostic analysis

It has been found that prothrombin activity (PTA), blood protein, total bilirubin, and albumin are closely related to the hepatic functional reserve, which was an important factor to judge the prognosis of patients with cirrhotic ascites. In addition, the increase in the number of white blood cells in ascitic fluid and peripheral blood is also a sign of infected ascites in cirrhosis, which is also related to prognosis. The increase of serum urea nitrogen can lead to renal injury in patients with cirrhotic ascites. This is also related to the prognosis of these patients. Therefore, based on the factors that affect the prognosis of patients with cirrhotic ascites, it is not only important to take active treatment measures for patients, but also carry out reasonable nursing intervention, so as to enhance their cognition of the disease and improve their psychological status as well as the cure rate.

2.2.2. Nursing intervention

The routine group received routine nursing, which includes the monitoring of vital signs, the recording and analysis of ascites, providing medication guidance, and keeping the wards clean. The observation group received high-quality nursing intervention, which includes several aspects.

- (1) Health guidance. Nursing staffs should provide health education to patients, including information on cirrhotic ascites and matters needing attention during the disease period. They should also give health knowledge lectures and play videos to enhance the patients' cognition of the disease.
- (2) Medication guidance. Diuretics, such as spironolactone and torasemide, are the main drugs in the treatment of cirrhotic ascites. Diuretics can reduce ascites by increasing urine volume, but the frequent use of these drugs will alter the electrolyte balance. Therefore, potassium-sparing drugs should be taken with diuretics. Nursing staffs should inform patients of the correct medication method and instruct them not to change the dosage without authorization. Taking diuretics will promote the excretion of water in the body; hence, patients will develop abdominal distension or hypotension. Therefore, they should also inform patients of these possible situations in a timely manner to avoid causing tension.
- (3) Psychological care. As cirrhotic ascites is difficult to cure and is known to have a long course, patients tend to experience chronic pain, with anxiety, depression, fear, or other adverse psychological emotions; they may even develop suicidal ideations. Therefore, nursing staffs should emphasize on the psychological care of patients, observe their psychological changes, and formulate a targeted psychological intervention plan; they should also consider from the perspective of each patient, communicate with the patients in a gentle tone, gradually help the patients to reduce their stress level and fear, encourage them to share out their thoughts, as well as comfort them; in addition, they should also communicate with the patients' relatives to help them understand the psychological changes of the patients and provide guidance as well as timely support.

- (4) Surgical care. If the patient's condition is serious and the drug treatment has not achieved the expected effect, the patient can be treated with transjugular intrahepatic portosystemic stent shunt (TIPSS) to reduce the pressure of the portal vein and alleviate the symptoms. Before the surgery, the patient should be informed of the necessity and safety of the surgery, and that the attending doctor has rich clinical experience, so that the patient would not worry. An hour before operation, the patient should be sent to the operating room, and the nursing staffs should position the patient correctly. During operation, the nursing staffs should actively cooperate by communicating with the patient, comforting them, and encouraging the patient with a gentle tone; they should also keep the temperature of the operating room in an appropriate range to prevent discomfort due to extreme temperatures; surgical records should then be made. After the operation, the nursing staffs should instruct the patient to rest more and closely monitor the indexes of the patient. In terms of diet, the patient should be informed to limit the intake of protein and instructed on how to take the prescribed ammonia-lowering drug. The nursing staffs should also be actively involved in the prevention of wound infection and the management of portal vein indwelling catheter. If there are any abnormalities, they should report immediately and assist in treatment.
- (5) Discharge guidance. Patients are allowed to be discharge when all their indexes have returned to normal levels or have met the discharge standard. After being discharged from the hospital, nursing staffs should make regular phone calls to provide rehabilitation guidance and encourage the patients to control their salt intake as well as to reduce oily food, thus ensuring a light diet.

2.3. Observation indexes

- (1) The clinical characteristics of the two groups were observed.
- (2) The nursing effects of the two groups were compared. The nursing effect included remarkable effect, effective, and ineffective. Remarkable effect refers to the situation when all the patient's physical indexes have returned to normal with the resolution of clinical symptoms. Effective refers to the situation when all the patient's physical indexes have basically returned to normal with improvement in clinical symptoms. Ineffective refers to the situation when the patient's physical indexes are still abnormal without any improvement in clinical symptoms. Total effective rate = (excellent + effective) / n × 100%.
- (3) The adverse reactions of the two groups were compared. The adverse reactions included abdominal distension, shortness of breath, and lower limb edema [2].

2.4. Statistical analysis

The clinical data of the two groups were recorded and analyzed using SPSS 24.0. The statistical data were compared, analyzed, and expressed in the form of n/% and tested by X^2 . $P < 0.05$ was considered statistically significant.

3. Results

3.1. Clinical characteristics of the patients in the two groups

The clinical symptoms were abdominal distension, nausea, and vomiting. The clinical signs were jaundice, abdominal wall varicosities, and hypoproteinemia. Among them, abdominal distension was noted in both the groups, as shown in **Table 1**.

Table 1. Clinical characteristics of the patients in the two groups

Group	Male / female	Age (years)	Course of disease (years)	Abdominal distention	Nausea and vomiting	Jaundice	Abdominal wall varicosities	Hypoproteinemia
Observation group (n = 40)	26 / 14	53.32 ± 1.43	2.27 ± 0.24	40 (100%)	25 (62.50%)	15 (37.50%)	13 (32.50%)	11 (27.50%)
Routine group (n = 40)	21 / 19	53.25 ± 1.31	2.34 ± 0.28	40 (100%)	21 (52.50%)	14 (35.00%)	12 (30.00%)	10 (25.00%)

3.2. Comparison of the nursing effects between the two groups

There were 39 effective cases in the observation group, with a total effective rate of 97.50%; whereas in the routine group, there were 33 effective cases, with a total effective rate of 82.5%. The total effective rate of the observation group was significantly higher than that of the routine group ($P < 0.05$) (Table 2).

Table 2. Comparison of the nursing effects between the two groups [n/%]

Group	Number of cases	Remarkable effect	Effective	Ineffective	Total effective rate
Observation group	40	23 (57.50)	10 (25.00)	7 (17.50)	33 (82.50)
Routine group	40	29 (72.50)	10 (25.00)	1 (2.50)	39 (97.50)
X^2 value					5.000
P value					0.025

3.3. Comparison of the incidence of adverse reactions between the two groups

There were 8 cases of adverse reactions in the routine group, in which the incidence of adverse reactions was 20.0%. In the observation group, there were only 2 cases of adverse reactions, in which the incidence of adverse reactions was 5.0%. The incidence of adverse reactions in the observation group was significantly lower than that in the routine group ($P < 0.05$), as shown in Table 3.

Table 3. Comparison of the incidence of adverse reactions between the two groups [n/%]

Group	Number of cases	Abdominal distension	Shortness of breath	Lower limb edema	Incidence of adverse reactions
Observation group	40	1 (2.5)	0 (0.0)	1 (2.5)	2 (5.0)
Routine group	40	4 (10.0)	2 (5.0)	2 (5.0)	8 (20.0)
X^2 value					5.000
P value					0.025

4. Discussion

Liver cirrhosis is caused by hepatocyte necrosis and the diffuse proliferation of fibrous tissue in the liver, which then forms nodules and pseudolobules, destroying the structure of the liver and its blood supply. With the improvement of living standards, people's eating habits have changed. The incidence rate of cirrhosis is increasing year by year and is affecting younger people. Cirrhosis is likely to cause cirrhotic

ascites [3,4]. Cirrhotic ascites is also known as liver ascites. Due to the excessive retention of water and sodium in the body, the plasma colloid osmotic pressure reduces, resulting in a decrease in renal blood flow and urine output, thereby forming ascites. The symptoms associated with this condition are abdominal distension, dyspnea, and lower limb edema. If the disease is not treated in time, it will threaten the life of patients [5]. Therefore, reasonable nursing intervention should also be carried out in addition to treatment, so as to speed up the physical rehabilitation process of patients.

Routine nursing intervention is not targeted, and it is not comprehensive, so the nursing effect is not ideal. On the other hand, high-quality nursing intervention assumes patients as the core, places nursing in a primary position, focuses on meeting the requirements of patients, as well as ensures the physical and mental comfort of patients. In this study, through high-quality nursing intervention, which includes health guidance, medication guidance, psychological nursing, surgical nursing, and discharge guidance, the patients were able to enjoy comprehensive and high-quality nursing services during treatment. The results of this study showed that the total effective cases in the observation group were 39 cases, with a total effective rate of 97.5%, whereas the total effective cases in the routine group were 33 cases, with a total effective rate of 82.5%. The total effective rate of the observation group was significantly higher than that of the routine group ($P < 0.05$). In the routine group, there were eight cases of adverse reactions, in which the incidence of adverse reactions was 20.0%; in the observation group, there were only two cases of adverse reactions, in which the incidence of adverse reactions was 5.0%. The incidence of adverse reactions in the observation group was significantly lower than that in the routine group ($P < 0.05$). This shows that compared with routine nursing, high-quality nursing has better nursing effect and can reduce the occurrence of adverse reactions, thus having a positive impact on the treatment of patients with liver ascites.

In conclusion, the application of high-quality nursing intervention for patients with cirrhotic ascites can improve the nursing effect and reduce the occurrence of adverse reactions; thus, it should be popularized in clinical settings.

Disclosure statement

The authors declare no conflict of interest.

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