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Effect of Health Education Path Management on Complications and Recovery after Hepatectomy

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Abstract. Objective: This paper aims to discuss the complications and recovery after hepatectomy by implementing health education path management interventions for patients undergoing hepatectomy. Method: Select 80 cases for those went through hepatectomy between May 2017 and January 2018 in our hospital; randomly divide the 80 cases into two groups. The control group adopts conventional hospital while the treatment group receives health education intervention. Then, we evaluate the complications and recovery after hepatectomy and carry out comparison. The result shows that the treatment group has a low complication rate and there is a significant difference ($P<0.05$). In addition, the ALT as well as AST significantly increases and a significant different also exists ($P<0.05$). Conclusion: The adoption of health education path management interventions for hepatectomy patients has obviously positive effects, which also reduces the incidence of complications, improve their life quality and plays an important role in clinical application.

Liver cancer is a common and frequently occurring severe malignant disease in the clinic. Incidence rates in recent years gradually show a sharp upward trend. Due to its characteristics of malignancy as well as hidden rapid development, people would not go to the hospital in time and it has already developed into cancer when they found out. Liver cancer has a very low cure rate while high mortality rate, which triggers a great threat to people's life and heath both physically and mentally. Currently, we adopt hepatectomy to treat liver cancer, and the technology is simple and mature and can also precisely target the disease area. Therefore, it can remove the disease position thoroughly with a good effect. However, it also leads to trauma, a great amount of blood loss, wound infection, slow recovery. Moreover, those patients are proved to show a decline of their immune function, metabolic function and various physiological functions[1]. Old patients are accompanied by a variety of complications before and after surgery, which will greatly affect their life quality[2]. Currently, clinical heath path primarily focuses on effective health care models for patients while in hospital and out of hospital, which can also strengthen the health care quality and benefit the health of patients. Therefore, it's worth promoting. This paper aims to discuss the complications and recovery after hepatectomy by implementing health education path management interventions for patients undergoing hepatectomy.

Materials and Methods

General Information. Select 80 cases for those went through hepatectomy between May 2017 and January 2018 in our hospital, among which 47 cases are male while 33 cases are female. The clinical diagnosis and pathology report show that they all meet relevant diagnostic criteria. The average age of those patients is between (56.8 ± 5.9). By random division, every group gets 40 people. There are 25 males and 15 females in the control group, and the average age is between (55.6 ± 4.9); there are 22 males and 18 females in the treatment group while the average age is between (54.1 ± 5.5). All the patients are approved by the Hospital Ethics Committee and signed the consent form. We compare the general data (gender, age, degree of illness) of those two groups and the difference is not statistically significant ($P>0.05$) and is comparable.

Health Education Path Management Method[3-5]. The medical staff treat the control groups based on conventional health care and adopt designed health path measures to treat the control group so as to carry out standardized clinical care service, provide health guidance along with nursing activities. Meanwhile, relevant personnel are getting trained to learn the basic idea, purpose, use methods and practical skills about clinical health care path. Furthermore, patients will get all kinds of preoperative auxiliary inspections along with detailed explanations; after the surgery, they will also be informed of related health knowledge (the mechanism of the disease, the significance of the surgery, preoperative, surgical procedures, postoperative care, and surgery treatment safety etc.); in addition, postoperative complication prevention care will be carried out if necessary such as pressure sore happens. We will tell them the methods to take care of themselves so as to help patients develop a good living habit. Within a few days after surgery, bed rest should be performed and the bed should be laid flat. The limbs should not be moved to avoid exertion. When the condition improves, appropriate minor activities can be performed on the bed to prevent wound bleeding. Postoperative care: the patient should be sent back to the ward for the purpose of warmth and proper oral care can be given after anesthetic awareness. Those patients do not have abnormal performance can drink a small amount of boiled water in the early stage, and gradually increase the amount of drinking water and maintain adequate quiet rest; one basic routine of postoperative care is oxygen therapy before anaesthetic awareness; if patients begin to have awareness, we can elevate the bed so as to help them breathe and drain. Based on the condition of patients, we can help wash and help with walking etc. under the guidance. Patients are suggested to form a good rest and work habits, keep enough sleep time for us to observe their condition; dietary care should be guided based on reasonable diet. For example, we can slowly drip rice soup to keep a daily amount. What's more, patients should eat food with high protein as well as high fiber such as fresh fruits and vegetables to avoid abdominal distention while cold as well as spicy food are prohibited. A very important key is to have regular inspection. Psychological rehabilitation: Patients can avoid negative feelings of fear, anxiety etc. as they feel sick suddenly and cant walk as well as stand. So, they have psychological pressure about their sickness and medical treatment. The negative condition will lead to a bad result and even aggravate disease progression. At this time, nursing staff should talk with the patients in order to calm their nerves and build a sense of trust. In the meanwhile, patients are supposed to fully understand what's going on so as to positively coordinate and realize its importance. If they are going to be out of hospital, medical staff should help them check out and give diet suggestions and make sure the time for return visit based on their specific condition.

Evaluation Indicators. Record the adverse reaction rate of both two groups as well as the change of ALT as well as AST. At the same time, compare the complication incidence and health care satisfaction. According to Health Care Service Quality Standards, we can divide the satisfaction into three levels: satisfaction, partly satisfaction and dissatisfaction. Total (%) equals to satisfaction numbers + partly satisfaction numbers/total numbers.

Statistical Methods. Compare the statistical data of the two groups after treatment by using SPSS 14.0 statistical software. Measured data will be expressed as mean ± standard deviation ($x \pm s$), t is be used for test; count data is expressed as rate (%), while X2 is used for test. A difference of $P<0.05$ between the two groups will be considered statistically significant.

Result

Compare the Complications of Two Groups after Surgery. From the results of the postoperative complications incidence in the two groups, we found out that compared with the control group, the patients in the treatment group have complications including abdominal bleeding, liver failure, abdominal infection, lung infection etc. However, the incidence is only 17.5%. Compared with the control group, it is significantly lower and difference between the groups is significant ($P <0.05$).

Table 1 Comparison of postoperative complications incidence in the two groups

Group	n	Abdominal bleeding	Liver failure	Abdominal infection	Lung infection	Complication incidence rate
Treatment group	40	2	0	4	1	17.5
Control group	40	6	2	9	2	47.5

Comparison of ALT and AST after surgery. Compare the postoperative ALT and AST level of two groups. The result shows that the levels of ALT and AST in the treatment group and the control group both increase significantly and there is no no significant difference between the two groups (P>0.05). After reinspection for 7 and 14 days, the ALT as well as AST level of the treatment group significantly decreased with significant differences between the groups (P<0.05), indicating that the hepatic indexes of patients after hepatectomy were recovered, as shown in Table 2.

Table 2 ALT, AST change after surgery

Group	ALT（U/L）			AST（U/L）		
	After surgery	7 days later	14 days later	After surgery	7 days later	14 days later
Control group	256.4±19.8	109.4±11.3	69.3±6.4	245.2±18.5	100.1±13.5	71.0±6.9
Treatment group	254.9±20.5	92.6±9.5	53.6±5.5	241.7±17.7	79.6±10.5	49.6±5.8

Comparison of Satisfaction. The results of satisfaction of health care intervention between the two groups are shown in Table 3. Among the patients in the treatment group, 22 are satisfied after nursing intervention, 16 are partly satisfied and the satisfaction rate is 95%. In the control group, 15 patients are satisfied, 12 are partly satisfied and the satisfaction rate is only 67.5%. The satisfaction degree of treatment group increases to 27.5% and there is a significant difference with statistical significance.

Table 3 Satisfaction comparison of two groups

Group	n	Satisfaction	Partly satisfaction	Dissatisfaction	Satisfaction percentage
Treatment group	40	22	16	2	95
Control group	40	15	12	13	67.5

Discussion

Hepatectomy has complicated operation procedures and long operation time. Postoperative complications are very likely to occur, which will lead to a serious impact on the patient's recovery. In order to effectively reduce the incidence of complications, reduce the damage caused by surgery on liver function, effectively improve the survival rate of patients, prompt recovery of patients and the ability of patients to resume self-care as soon as possible, ensure the quality of life of patients, it is necessary to implement personalized nursing services and strengthen the health education of patients[6-7].

The key to enhance the therapeutic effect and postoperative quality of life of liver cancer patients is to adopt health education. However, the traditional management model has limitations, including lack of human resources, knowledge etc, and therefore the health education is not prominent and

cannot target well. Health care carried out based on general nursing methods is not clear enough and cannot comprehensively as well as systematically cure patients. If health education path management is conducted, it can help patients have a good knowledge of themselves in advance, which will inevitably help relieve tension, promote the patient's active participation in medical care activities, and also reflect the plan. It is predictive and targeted and can help solve actual patient problems. During the implementation, patients can receive a sophisticated health care plan, which can improve its quality[8]. In recent decades, the path of health education has gradually become an important tool in clinical nursing management. It has the advantages of guiding nurses' initiative and predictability, enabling patients to actively participate in the nursing process, improving the quality of effective care, and saving medical resources. The management of the health education team is mainly through the professional guidance training for the nursing staff to strengthen the effectiveness of nursing staff health education. Health education path management, as a special professional service method with strong professional theory, has achieved remarkable results with the widespread application of nursing measures in many diseases. Therefore, the use of targeted methods for liver cancer resection patients to provide relevant health guidance, is conducive to patient rehabilitation, improve the quality of care services, with guiding value in clinical care.

The results of this study show that compared with the control group, patients in the treatment group have significant differences ($P<0.05$) in terms of complications and ALT as well as AST. In addition, the satisfaction in treatment group reaches to 90% while complications are greatly reduced. It shows that improvement of nursing path management in patients undergoing hepatic resection has obvious positive effect, which can provide a basis for clinical treatment, with important reference value.

In summary, various measures should be actively taken to deal with the damage to humans caused by liver cancer. The results show that this type of intervention in the health education path management has a positive effect on the complications and recovery after hepatectomy, along with certain advantages and at the same time controls the disease. It is more helpful and has certain guiding significance in treatment. Providing selective treatment methods will help promote the physical health of postoperative patients and is worthy of clinical reference.

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