



The Value of Extended Nursing Services on Patients with Bladder Cancer after Endoscopic Bladder Resection

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Abstract

Background: In this study, specific measures of extended nursing services and its values on patients with bladder cancer after endoscopic bladder electrosection were examined.

Methods: Sixty-six patients diagnosed with bladder cancer in Laiwu People's Hospital (NO. 001, Xueyehu Street, Changshao Road, Laiwu, Shandong, China) between February 2012 and February 2014, and underwent endoscopic bladder electrosection were enrolled in the study. Patients were randomly allocated into the control group (n=30 cases) or the observation group (n=36 cases) according to the order of hospitalization. Conventional nursing measures were given to the control group while extended nursing service measures were given to the observation group, and the differences of nursing effect were compared.

Results: The occurrence rate of postoperative complications within the hospital for the observation group was significantly lower than that of the control group, as was the length of hospital stay. The nursing service satisfaction was also significantly improved within the observation group. These differences were statistically significant ($P < 0.05$). The anxiety and depression scores for the observation group were significantly lower than that of control group and these differences were also of statistical significance ($P < 0.05$). The follow-up compliance after hospitalization for the observation group was significantly enhanced, quality of life scores were significantly improved, and both differences were of statistical significance ($P < 0.05$).

Conclusion: Extended nursing service improves the effect and long-term prognosis of patients with bladder cancer after undergoing endoscopic bladder electrosection.

Keywords: Extended nursing service, Bladder cancer, Endoscopic bladder electrosection

Introduction

Bladder cancer ranks first among all tumors of the urinary system in terms of morbidity and mortality rate (1). Therapeutic treatment includes traditional surgery, cystoscopy or laparoscopy micro invasive operation and chemotherapy. Most patients still require post chemotherapy treatment after the operation to enhance tumor apoptosis rate and

improve survival and prognosis. Cystoscopy is widely applied in the diagnosis, therapy and review of tumors, which has the advantages of being a simple operation with minimal trauma, quick recovery and high accuracy. However, bladder cancer itself strikes a serious blow to patients, and it significantly lowers the quality of life with the ad-

dition of operative trauma, complications of chemotherapy and postoperative bladder colostomy.

Nursing services that cooperate with clinical treatment plays an important role in the aspects of improving the confidence of patients, building a harmonious doctor-patient relationship, enhancing compliance and improving the living status of patients (2). Extended nursing services optimize the nursing mode from two aspects; content and scope, and have a significant effect in the process of therapy and recovery of many diseases (3-4).

In this study, specific measures of extended nursing services and its values on patients with bladder cancer after endoscopic bladder electrosection were examined. Through the application of extended nursing services on patients with bladder cancer after endoscopic bladder electrosection, it improves the effect and long-term prognosis of patients, which provides new strategies for nursing measures for patients with this disease.

Materials and Methods

General Information

Sixty-six patients diagnosed with bladder cancer in Laiwu People's Hospital (NO. 001, Xueyehu Street, Changshao Road, Laiwu, Shandong, China) between February 2012 and February 2014 and underwent endoscopic bladder electrosection were enrolled into the study. All patients were pathologically confirmed, and had indications of endoscopic bladder electrosection. Exclusion criteria were as follows: 1) Recurrent bladder cancer, operation history of bladder and secondary bladder tumor. 2) The combination of serious organ dysfunctions of the heart, liver and kidney, and the estimated survival time no more than 12 months; 3) Poor compliant and patients who rejected this research.

After obtaining approval of the admission of Ethics Committee of Laiwu People's Hospital and the informed consent of patients and their relatives, patients were randomly allocated into the control group (n=30 cases) and the observation group (n=36 cases) according to the order of hospitalization. The control group consisted of 21 male pa-

tients and 9 female patients with the age ranging between 48 and 69 yr and with an average age of 53.7 ± 10.5 yr. The control group also consisted of 22 patients with superficial bladder cancer, eight patients with invasive bladder cancer and five patients with abdominal wall fistulation. The observation group consisted of 25 male patients and 11 female patients with the age ranging between 45 and 71 and with an average age of 55.2 ± 11.4 . The observation group also consisted of 25 patients with superficial bladder cancer, 11 patients with invasive bladder cancer and 8 patients with abdominal wall fistulation. The difference was of no statistical significance in the comparison of baseline information between the two groups of patients ($P > 0.05$).

Nursing Method

All patients received common chemotherapy after the operation, and patients in the control group were given conventional nursing measures, including preoperative vital signs assessment, the introductions of disease characteristics and surgical methods. As well as possible complications and corresponding treatment measures, the introductions of the ward's environment, doctor-in-charge and duty nurses, taking medicines according to the doctor's advice and using a calling service when feeling uncomfortable.

Patients in the observation group were given extended nursing service measures, and service connotations were specifically optimized from two aspects; content and scope, including 1) Patients revisit archives are established (5). Detailed personal information was registered when patients entered the hospital (kept privately), and their personal details and family backgrounds were acquired. This was beneficial to conduct psychological comfort and enhance their confidence of overcoming the disease. Sufficient communications with their relatives were carried out in order to coordinate in the disease treatment. Regular telephone follow-up or outpatient reviews were carried out post hospitalization to acquire the living conditions of patients and adapt them accordingly. Operative countermeasures were also given to prevent difficulties such as disease recurrence and complications. 2)

Responsible medical group were established (6); aiming at patient groups of the same disease and of the same therapeutic strategy. Highly qualified doctors and nursing teams were established, with one doctor and two nurses allocated to every three patients.

After relevant trainings, a simple and programmed survey form was designed, and specific therapeutic methods and nursing contents were fully explained to patients and their relatives. As a result, the enthusiasm of active participation of the patients was established. The degree of accomplishment of the specific form content was evaluated by the head nurse or the nurse-in-charge, and was regarded as qualified only when the complete target rate reached 95%. 3) Various forms of educational activities were carried out (7), including lectures conducted on health education, voluntary medical consultations in communities, health brochures, consultations via telephone and online questioning.

Observation Indexes

The differences of the occurrence rate of postoperative complications (infection, haemorrhage, bed sore and malnutrition), length of hospital stay, nursing service satisfaction (nursing questionnaire was adopted, and three categories of very satisfied, satisfied and dissatisfied were divided) between the groups were compared. As was the anxiety and depression score (SAS and SDS scores), fol-

low-up compliance post hospitalization (follow-up questionnaire is adopted, and the levels are divided into three classes: high compliance, medium compliance and low compliance) and life quality score (SF-36) between the two groups were compared.

Statistical Methods

Data were analyzed by statistical software SPSS 19.0 (Chicago, IL, USA). Measurement data was expressed by mean \pm standard deviation, and a *t*-test was adopted for comparisons between groups; while enumeration data was expressed by the number of cases or percentage, and χ^2 -test was adopted for comparison between groups. $P < 0.05$ was established to be a difference of statistical significance.

Results

The Comparison of the Occurrence Rate of Postoperative Complications, Length of Hospital Stay and Nursing Service Satisfaction

The occurrence rate of postoperative complications within the hospital for the observation group was significantly lower than that of the control group, length of hospital stay was also significantly shortened, and nursing service satisfaction was significantly enhanced. All differences were of statistical significance ($P < 0.05$) (Table 1).

Table 1: The comparison of the occurrence rate of postoperative complications, length of hospital stay and nursing service satisfaction

Groups	Cases	Infection	Haemorrhage	Bedsore	Malnutrition	The occurrence rate of complications	Length of hospital stay (d)	Very Satisfied	Satisfied	Unsatisfied	Degree of satisfaction
Control Group	30	2	2	2	2	8 (26.7)	16.7 \pm 4.2	10	12	8	22 (73.3)
Observation Group	36	1	1	1	0	3 (8.3)	8.6 \pm 2.5	19	14	3	33 (91.7)
<i>t</i> (χ^2)						3.960	5.127				3.960
<i>P</i>						0.047	0.029				0.047

The Comparison of Anxiety and Depression Scores

The comparison of SAS and SDS scores for the two groups of patients before the treatment shows that both differences were of no statistical significance ($P>0.05$). While scores for both

groups of patients after the treatment were lowered compared with scores from before the treatment, the decline of the observation group was more obvious. Both differences were of statistical significance ($P<0.05$) (Table 2).

Table 2: The comparison of anxiety and depression scores

Groups	SAS Score		SDS Score	
	Before the Treatment	After the Treatment	Before the Treatment	After the Treatment
Control Group	56.7±6.6	37.2±4.5	62.4±8.2	40.5±3.9
Observation Group	57.4±7.2	26.8±4.2	64.1±7.9	31.3±3.6
t	0.528	5.517	0.364	5.924
P	0.432	0.036	0.928	0.034

The Comparison of Follow-up Compliance post hospitalization and Quality of life scores

In the observation group, follow-up compliance post hospitalization was significantly enhanced

and quality of life scores were significantly improved. These differences were of statistical significance ($P<0.05$) (Table 3).

Table 3: The comparison of follow-up compliance post hospitalization and quality of live scores

Groups	Cases	High Compliance	Medium Compliance	Low Compliance	Compliance Rate	SF-36 Score
Control Group	30	8	11	11	19 (63.3)	69.5±14.7
Observation Group	36	14	17	5	31 (86.1)	83.4±12.3
t (χ^2)					4.623	5.617
P					0.032	0.029

Discussion

With the ever-growing demands of nursing quality; the research into high quality nursing, whole-range nursing, specific nursing and extended nursing modes are constantly deepening. Extended nursing modes adapts to diversify and multi-layered health requirements of patients, gradually extends to families and communities, and plays an active role in nursing for the aged, patients with chronic diseases and palliative care patients (8). Drawing on the experience of extended nursing service in China and abroad, Laiwu People's Hospital provides "seamless" continuous nursing service for patients who require nursing post hospitalization, whole-range nursing for patients from hospital

admission to post hospitalization home nursing. It includes regular follow-ups including phone calls, text messages, e-mails, home revisits, outpatient health educations and patient meeting activities. Attention is also paid to the communication within the nursing service of community hospitals, achieving the "seamless" connection of high quality nursing from leaving the hospital to the stage of home recovery, improving the self-management abilities and quality of life for patients, lowering the possibility of rehospitalization, and reducing the financial medical burden on society (9-10). Past researches focused more on various studies based on post hospitalization, including

establishing communication with patients, instructing the health of patients post hospitalization and the right method of nursing, and thus improved the long-term prognosis (11). By expanding the content and scope of extended nursing during hospitalization and post hospitalization as well as combining high-quality nursing and specific nursing, this research provides whole-range, high-quality and continuous nursing services. Patients with bladder cancer are at risk of losing confidence, become seriously anxious and depressed, or even commit suicide because of fearing they will develop tumors. This can be a burden to the family and society. In addition, high expenses of operations and chemotherapies can also bring serious economic burdens to the family. Post hospitalization treatment for complications may also be required and bring serious negative effects to patients' life and work. Improving aspects of specialization, humanization, enhancing nursing post hospitalization and follow-up visits, extended nursing service significantly improves quality of life for patients, and lowers the recurrence rate of tumors to a certain degree (12-13).

Based upon this research, the occurrence rate of postoperative complications within the hospital for the observation group was significantly lower than that of control group, length of hospital stay was significantly shortened, and nursing service satisfaction was significantly improved. The anxiety and depression scores for the observation group were significantly lower than that of the control group, the follow-up compliance post hospitalization was significantly enhanced, and quality of life scores were significantly improved.

Conclusion

Extended nursing service improves the effect and long-term prognosis for patients with bladder cancer after undergoing endoscopic bladder electrosection from two aspects; content and scope, which is worthy of clinical application and promotion.

Ethical considerations

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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