

Analysis of the facilitating effect of medication on postoperative recovery of elderly patients with total cystectomy in situ urinary diversion based on CGA comprehensive nursing model

Zelin Guo^{1a} You wang^{2b} Yuan Ping^{3c} Ting Yang^{4d} Zhongxiang Cai^{5e} Xing Li^{6f} Fan Cheng^{7g}

¹ Department of Urology, Renmin Hospital of Wuhan University, Wuhan, 430060, Hubei, PR China

² Department of Stomatology, Zhongnan Hospital of Wuhan University, Wuhan, 430071, Hubei, PR China

³ Department of Urology, Guiqian International General Hospital, Guiyang, 550024, Guizhou, PR China

⁴ Department of Nursing, Renmin Hospital of Wuhan University, Wuhan, 430060, Hubei, PR China

⁵ Department of Urology, Renmin Hospital of Wuhan University, Wuhan, 430060, Hubei, PR China

⁶ Department of Urology, Renmin Hospital of Wuhan University, Wuhan, 430060, Hubei, PR China

⁷ Department of Urology, Renmin Hospital of Wuhan University, Wuhan, 430060, Hubei, PR China

a 13695198702@163.com b wangyou0120@126.com c 2696418464@qq.com d whu123478lin@126.com

e tg20201228@163.com f 18841653662@163.com g urology1969@aliyun.com

Co-first authors: Zelin Guo^{1a}, You Wang^{2b}

Co corresponding author: Fan Cheng^{7g}, Zhongxiang Cai^{5e}

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Abstract: The purpose of this paper is to investigate the effectiveness of the postoperative recovery method based on Comprehensive Geriatric Assessment (CGA) in patients undergoing total bladder excision in situ urinary diversion. CGA was introduced into the postoperative recovery process of elderly total cystectomy in situ urinary diversion patients, numbered bladder cancer patients, and grouped according to the basic characteristics matching between groups. The control group used conventional bladder cancer health care and counseling services program, and the observation group used conventional bladder cancer health care and counseling services + CGA nursing program. The scales of World Health Organization Quality of Life Measurement Scale (WHOQOL-100), Functional Status Scale (KPS), and Activity of Daily Living Scale (ADL) were used to evaluate bladder function, complication rate, quality of survival, physical health, and daily living ability of the two groups of patients at 6 months after surgery, and 6 months before and after surgery, respectively. The time to get out of bed, the time to ventilate and the time to eat of the patients in the observation group were significantly lower in the intervention group than in the control group, $P < 0.05$. The number of various common postoperative complications was reduced, and the incidence rate was lower than that of the control group. The patients in the observation group were able to face the disease actively after CGA care, and the total quality of generation was 73.85 ± 16.85 , which was significantly higher than that of the control group, 66.14 ± 18.02 , both of which were statistically significant.

Keywords: CGA; elderly patients; total cystectomy; complication rate; postoperative recovery

1. Introduction

Bladder cancer is one of the most common malignant tumors in the urinary system, and it is a common clinical disease that can directly threaten the survival of patients ^[1]. The incidence of bladder cancer is predominantly in the elderly, and total cystectomy is currently the treatment of choice for bladder cancer, while bladder reconstruction and urinary diversion is an important problem that needs to be solved after total cystectomy ^[2-3]. With the rapid development of in situ neobladder surgery, urinary diversion is evolving from simply diverting urine through the bowel channel to outside the body to enabling the patient to approach physiologic voiding ^[4-6]. In situ ileal or colonic neobladder surgery has the characteristics of maintaining normal habits and in situ urination, which greatly improves the quality of life of patients and is easily accepted by patients ^[7-9]. With the improvement of surgical techniques and standardization of preoperative preparation and perioperative care, in situ urinary diversion for bladder cancer has gradually become a more commonly used surgical procedure in major medical institutions, and has achieved more satisfactory therapeutic effects ^[10-12].

The application of comprehensive geriatric assessment (CGA) to the clinical nursing assessment of elderly patients undergoing total cystectomy with in situ urinary diversion can identify potential geriatric problems in a timely manner, and at the same time, obtain patient satisfaction evaluation ^[13-14]. Thus, positive countermeasures can be taken to control various risk factors and improve bladder function after total cystectomy in situ urinary diversion in patients with bladder cancer ^[15].

In this paper, patients who were diagnosed with bladder cancer and underwent total cystectomy in situ urinary diversion were studied, and were grouped using the method of matching basic characteristics between groups, numbered according to the order of patients' visits to the clinic, keeping the number of cases in the two groups equal as much as possible, and with a close composition of important characteristics. The patients in the control group were provided with conventional bladder cancer health care and counseling services after surgery, and the observation group was supplemented with CGA care on the basis of the control group, forming a new model of CGA care + drug intervention. We compared the balanced general information of the two groups, compared the postoperative bladder function recovery, complication rate, preoperative and postoperative WHOQOL-100 scores, Karnofsky scores/ADL scores of the two groups. We also analyzed the role of CGA nursing + medication regimen on the postoperative recovery of patients in the observation group in terms of behavioral domains and service domains.

2. Materials and methods

2.1 Subjects of study

Patients who presented to the three wards of the Department of Urology of the Guiqian International General Hospital from October 2023 to June 2024 with a confirmed diagnosis of bladder cancer and underwent total cystectomy with in situ urinary diversion were included in the study^[1-3].

Of the 89 study subjects who were included and completed data collection, there were 52 cases with single tumor and 37 cases with multiple tumors. There was no difference between the two groups of patients with single or multiple tumors ($p>0.05$). There were 75 cases of primary recurrence and 14 cases of recurrence, and there was no difference between the two groups of patients in terms of primary or recurrence ($p>0.05$). The solitary tumors were located in the deltoid region in 7 cases, the left wall in 6 cases, the right wall in 4 cases, the anterior wall in 6 cases, the posterior wall in 22 cases, the base of the bladder in 3 cases, and the top of the bladder wrist in 4 cases.

Histopathologic staging of the study subjects was included: 78 cases of uroepithelial carcinoma compassionate (UC) or transplanted cell carcinoma (TCC). Among them, there were 21 cases of well-differentiated cells (grade I), 37 cases of moderately differentiated (grade II), 23 cases of poorly differentiated (blocking grade), 3 cases of squamous cell carcinoma, 4 cases of adenocarcinoma, and 1 case of mixed carcinoma.

2.1.1 Inclusion criteria

- ① Diagnosis of bladder cancer by pathologic examination.
- ② Primary bladder cancer.
- ③ Those who have no serious complications after surgery.
- ④ Patients with good mental status and good communication skills.
- ⑤ Available for telephone contact.

2.1.2 Exclusion criteria

- ① Combined vital organ damage or other serious chronic diseases.
- ② Those with previous psychiatric history or serious cognitive impairment who cannot cooperate.
- ③ Those who refuse to participate in the study after explaining the purpose, method and significance of the study to the patients and their families.

2.2 Research methodology

A prospective controlled study design was used. Patients in the control group received routine bladder cancer health care and counseling services, and the intervention group received routine bladder cancer health care and counseling services in addition to the addition of CGA assessment and appropriate nursing interventions.

All study subjects were measured preoperatively with basic quality of life scores and bladder cancer disease status, comorbidities (CCI), body mass index (BMI) assessment and a general survey including smoking history, literacy level, and place of residence.

2.2.1 Grouping methodology

The method of matching basic characteristics between groups was used for grouping. First, patients were numbered according to the order of consultation, and those with a single number were included in the intervention group and those with a double number were included in the control group. When each group reached 25 cases, the composition of the basic characteristic factors of each group was calculated, and the difference in the composition of a certain factor between the two groups was used to determine the grouping of the patients to be enrolled in the future. For example, if the composition of male patients in the intervention group was greater than that of the control group, then the reenrolled patients who were males were assigned to the control group, females were assigned to the intervention group, and so on. Eventually, the number of cases in both groups was kept equal and the composition of important characteristics was close to each other. After grouping, there were 45 cases in the intervention group, 24 male patients and 21 female patients, with a mean age of 72.05 ± 6.57 years. The control group consisted of 44 cases, 22 male and 22 female patients with a mean age of 73.17 ± 7.34 years.

2.2.2 Routine bladder cancer health care and counseling services

Completed by the nurses in this ward, including: routine preoperative preparation, fasting and abstinence from food and drink. Postoperative drainage tubes should be kept open and well fixed. Postoperative dietary guidance, early postoperative activities out of bed, dietary guidance before discharge, instructing patients to urinate regularly, do anal contraction exercises, avoid lifting heavy objects, keep bowel movement smooth, go to the hospital for review on time, and follow up for discomfort. Verbal education was used in all cases, and a health education manual for bladder cancer patients was distributed on the day of discharge.

2.2.3 Comprehensive assessment of old age

The Comprehensive Geriatric Assessment (CGA) is a multidimensional and interdisciplinary diagnostic process deployed to assess the functional status and impairments of older patients. CGA results are the basis for the multidisciplinary geriatric team to develop a plan of therapeutic interventions. Geriatric assessment enriches basic information about older adults and provides a comprehensive picture of the health, functional problems, and needs of older patients. As one of the core techniques in the clinical practice of modern geriatrics, CGA possesses great strengths and potential. Several studies have demonstrated that CGA and subse-

quent targeted treatments have improved the prognosis and quality of survival of elderly patients.

Two CGAs were performed on patients in the intervention group. the first was completed within 3 days of admission, and the intervention group was given targeted interventions based on the results of the CGA. The 2nd CGA was performed at the end of the study. The CGA included the following four aspects.

(1) Comprehensive medical care

Patients in the intervention group were assessed for the presence of visual or hearing impairment, sleep disorders, urinary incontinence, constipation, and chronic pain. If any of these conditions exist, relevant experts are invited for consultation and scientific interventions are given if necessary.

(2) Somatic Function

Evaluate the living ability of the patients in the intervention group, and if there is any dysfunction, implement interventions to improve the living ability of the patients in depth. The patients' risk of falling was assessed using a rating scale, and if there were high-risk factors, we actively searched for factors that could cause falls and implemented appropriate interventions to minimize the risk of falling.

(3) Cognitive and Psychological Functioning

The cognitive functioning of the elderly group was assessed using the internationally recognized Simple Intelligence Assessment Scale (SIAS), which assessed the cognitive functioning of the intervention group patients in terms of orientation, memory, attention, calculation, recall and language ability. If any cognitive function problems were found, timely and proactive communication with family members was conducted. Early treatment and intervention were carried out with a view to slowing down the progression of cognitive dysfunction. The assessment of emotional state includes the assessment of depression and anxiety in the elderly, using the anxiety self-assessment scale and the depression self-assessment scale to help early detection of anxiety and depression in the elderly. The presence or absence of mood disorders such as anxiety and depression was also assessed in both groups. If there are, then as soon as possible to ask psychologists to assist in the intervention, the implementation of psychological counseling as soon as possible to carry out, if necessary, follow the doctor's orders to give medication.

(4) Social and environmental factors

The patients in the intervention group were asked in detail about their family situation, including the composition of family members, family income status, daily care and emotional support, etc., and their families were exchanged to grasp the expectations and requirements, etc., so as to formulate a sound and reasonable treatment plan and explain to their families the relevant risks and expected results of treatment.

2.3 Research tools

The main study tools included the basic social and demographic information sheet of the patients, Chatham Comorbidity Rating Scale, QLICP Quality of Life Inventory and ICI-Q-SF International Urinary Incontinence Questionnaire Short Form.

(1) General information sheet

The general information sheet is a situation registration form, which is mainly used to know and record the patient's age, gender, nature of work, place of residence, living situation, source of health care expenses, literacy level, history of smoking and preoperative body mass index.

(2) International Consultative Committee on Urinary Incontinence Questionnaire Short Form (ICI-Q-SF)

The screening and assessment of urinary incontinence scale is strongly recommended by the International Continence Society for the assessment of the degree of urinary incontinence and the screening diagnosis of different types of incontinence. The total score is 21 points with 4 items: frequency of leakage, amount of leakage, degree of impact and time of occurrence of leakage, of which the sum of the first 3 items constitutes the score. A higher score indicates a more severe degree of incontinence.

2.4 Quality control

(1) CGA Nursing + Medication Program Implementation Phase

Training was provided to the researchers before implementation, which included knowledge of geriatric cystotomy in situ urinary diversion surgery, nursing knowledge, implementation methods, communication skills, etc., to ensure that the implementers were able to apply the learned knowledge and skills to the postoperative recovery treatment.

The selected research tools were more mature and had better reliability and validity. Strictly selecting research subjects and obtaining informed consent from patients and their families, and keeping patients' information strictly confidential. A trusting relationship was established with the patients during the implementation, and follow-up visits were conducted by telephone and wechat to keep abreast of the patients' feelings and evaluations.

(2) Data collection stage

A unified guideline was used to explain to patients how to fill out the questionnaire, and the questionnaire was checked immediately after collection to ensure that the data were true and reliable.

(3) Data processing stage

The data were checked and numbered, and deleted, supplemented or corrected if there were any problems such as omissions or inaccurate filling. Double entry of data, and choose appropriate statistical methods to analyze the data.

2.5 Statistical methods

All data were analyzed using Excel to create a database and SPSS26.0 statistical software was applied. Comparison of means between two samples was performed using the t test. Comparison of rates between two samples was performed using the chi-square test. Two-sided test, $P < 0.05$ was considered statistically significant difference.

3. Results

3.1 Comparison of the balance of general information between the two groups of patients

The results of the balanced comparison of the demographic data of the two groups of patients are shown in **Table 1**.

The age of the patients in the two groups was statistically analyzed and the difference was not statistically significant. The mean age of the intervention and control groups was 72.05 ± 6.57 years and 73.17 ± 7.34 years, respectively.

The differences in gender, education level, marital status, BMI and basic quality of life between the two groups were not statistically significant, and the P-value was greater than 0.05, which was comparable.

Table 1. Comparison results of the comparison of demographic data in two groups

Project		Control group (n=44)	Observation group (n=45)	t / χ^2 value	P
Age		73.17 ± 7.34	72.05 ± 6.57	0.356*	0.725
Gender	Man	22	24	0.214**	0.603
	Woman	22	21		
Cultural degree	Junior middle school and below	14	16	-0.301**	0.757
	High school	22	19		
	College and above	8	10		
Marriage	In marriage	30	32	0.423**	0.569
	Nonmarriage	14	13		
Household monthly income	≤ 3000	5	6	-0.004**	0.992
	3000-5000	21	25		
	≥ 5000	18	14		
Medical reimbursement	Public fee	6	5	0.419**	1.000
	Health care/agriculture	34	37		
	Self-charge	4	3		
BMI	Normal	29	32	0.364**	0.593
	No	15	13		

3.2 Comparison of postoperative functional recovery

Comparison of postoperative functional recovery indexes between the two groups of patients is shown in Table 2. The time to get out of bed, the time to ventilate and the time to eat of the two groups of patients, the information does not conform to normal distribution, so the difference between the two groups is compared by using the nonparametric rank sum test, the statistics is the Z-value,

and the difference is considered statistically significant at $P < 0.05$. The results showed that the time to get out of bed, the time to ventilate and the time to eat were significantly lower in the intervention group than in the control group, $P < 0.05$.

Table 2. Two groups of patients underwent postoperative function recovery index

	Grouping	N	Mean	Rank sum	Z	P
Bed time	Control group	44	82.13 ± 23.41	10778	-5.266	0.000
	Intervention group	45	67.23 ± 28.04	8569		
Exhaust time	Control group	44	62.48 ± 18.37	14536.2	-5.893	0.000
	Intervention group	45	47.65 ± 26.31	8224.7		
Feeding time	Control group	44	67.09 ± 34.24	15163.4	-7.825	0.000
	Intervention group	45	41.37 ± 35.18	7356.9		

3.3 Comparison of complications

Comparison of complications between the two groups is shown in **Table 3**. Comparison of the incidence of various common postoperative complications between patients in the observation group and the control group.

The results showed that the difference in the incidence of postoperative digestive system, wound, infection, peripheral vascular and urinary diversion-related complications between the two groups of patients was statistically significant ($P=0.001$, $P=0.021$, $P<0.001$, $P=0.032$, $P=0.048$).

The incidence of various common postoperative complications in patients in the observation group was lower than that in the control group. For urethral diversion-related complications, 1 case of urinary retention and 1 case of urinary incontinence occurred in patients in the observation group. In the control group, 3 cases of urinary retention, 2 cases of urinary incontinence and 4 cases of anastomotic stenosis occurred.

Table 3. The complications of the two groups were compared

Group	Number	Digestive system	Wound	Infection	Peripheral blood vessel	Urinary flow is related
Observation group	45	2	2	1	1	2
Control group	44	6	7	5	7	9
χ^2	-	13.669	6.000	18.693	3.556	4.253
P	-	0.001	0.021	<0.001	0.032	0.048

3.4 Pre- and postoperative WHOQOL-100 scores

The preoperative WHOQOL-100 scores of the observation and control groups are shown in Figure 1, and Figures (a) and (b) show the scores of each scoring dimension in the observation and control groups, respectively.

In Figure (a), the preoperative WHOQOL-100 scores of the observation group for each dimension were total quality of life (62.34 ± 14.24), physical (53.65 ± 11.85), psychological (59.37 ± 8.92), independence (72.57 ± 12.56), social relations (68.25 ± 12.54), environment (63.57 ± 15.09), and spirituality/religion/belief (43.57 ± 6.25).

In Figure (b), the control group was scored in the order of total quality of existence (65.85 ± 19.25), physical (56.28 ± 17.05), psychological (63.52 ± 16.24), independence (69.21 ± 15.01), social relations (70.55 ± 13.54), environment (60.12 ± 12.96), spirituality/religion/belief (45.21 ± 8.69).

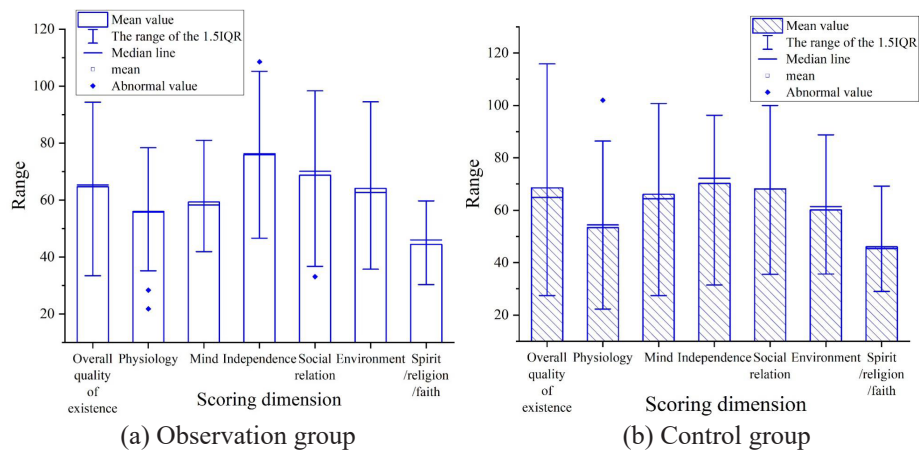


Figure 1. Preoperative, observation group and control group score statistics

The WHOQOL-100 scores of the postoperative observation and control groups are shown in Figure 2. Comparing Figures (a) and (b), the postoperative scores of the control group and the observation group in the overall quality of survival, psychological, independence, social relations, and environmental dimensions were 66.14 ± 18.02 versus 73.85 ± 16.85 , 59.89 ± 8.98 versus 67.82 ± 6.52 , 70.56 ± 12.56 versus 77.04 ± 8.91 , 67.15 ± 11.21 versus 74.32 ± 14.25 , 64.58 ± 10.55 versus 70.01 ± 16.94 . Large differences were observed in the total quality of survival, psychological, independence, social relations, and environmental dimensions.

The implementation of a CGA nursing + medication program for postoperative urinary diversion in elderly patients with total cystectomy in situ can improve the quality of survival, relieve the tension of elderly patients, and face the postoperative recovery more rationally.

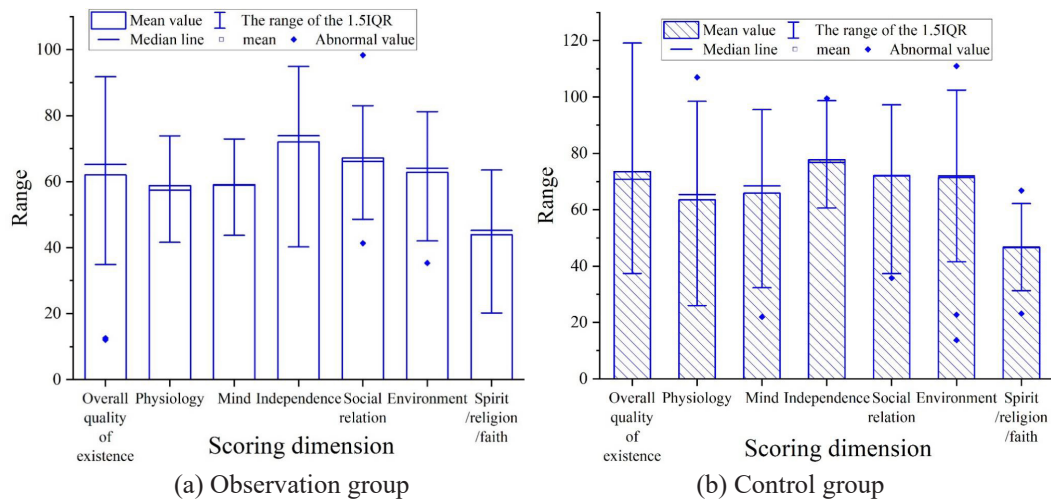


Figure 2. After operation, the intervention group and the control group whoq-100 score

The t-values and P-values of the preoperative and postoperative WHO-QOL-100 scores of the two groups were counted to analyze whether there was statistical significance in the preoperative and postoperative WHOQOL-100 scores of the two groups.

The preoperative WHOQOL-100 scores of the observation group and the control group are shown in Table 4.

Combining the previous charts and comparing the results of the WHO-QOL-100 scores of the patients in the observation and control groups before and after surgery, there was no significant difference between the patients in the observation and control groups before surgery in terms of overall quality of survival, physiology, psychology, independence, social relationships, patients and spirituality/religion/beliefs ($P > 0.05$).

There was no statistically significant difference in postoperative spiritual/religious/beliefs and physiological status between the two groups, but the differences were statistically significant in psychological, independence, social relations and environment ($P < 0.05$), and the overall quality of survival of the patients in the observation group was higher than that of the control group in the postoperative period ($P = 0.042$).

Table 4. The intervention group and the control group whoq-100 score summary

Scoring dimension	Preoperative		After operation	
	T value	P value	T value	P value
Overall quality of existence	0.653	0.521	2.133	0.042
Physiology	0.993	0.277	1.507	0.151
Mind	1.526	0.334	2.761	0.011
Independence	1.012	0.251	2.525	0.034
Social relation	1.109	0.308	2.693	0.008
Environment	1.025	0.247	2.128	0.026
Spirit /religion /faith	0.635	0.569	0.991	0.455

3.5 Karnofsky scores/ADL scores

Comparison of Karnofsky scores and ADL scores before and after surgery in the observation and control groups are shown in Table 5.

The difference in Karnofsky scores before and after surgery was not statistically significant in the control group patients ($P = 0.201$), and the difference in Karnofsky scores before and after surgery was statistically significant in the observation group patients ($P < 0.05$). The difference in postoperative KPS scores between the two groups was statistically significant ($P = 0.005$), and the postoperative functional status of the patients in the observation group improved compared with that of the control group.

The ADL scores of patients in the preoperative and postoperative periods of the observation group and the control group, respectively, showed that the difference between the postoperative ADL scores of patients in the two groups was statistically significant ($P = 0.001$), and that patients in the observation group had

improved postoperative living ability compared with that of the control group.

Table 5. The Karnofsky score before and after the operation is compared with ADL

Scoring	Group	Number	Preoperative	After operation	T value	P value
Karnofsky	Observation group	45	69.58 ± 8.75	73.54 ± 9.21	2.159	0.023
	Control group	44	65.31 ± 8.11	66.22 ± 6.19	1.664	0.201
	T value	-	1.856	3.201	-	-
	P value	-	0.132	0.005	-	-
ADL	Observation group	45	66.04 ± 7.87	63.54 ± 6.12	2.453	0.031
	Control group	44	69.12 ± 8.04	68.11 ± 9.05	0.526	0.716
	T value	-	1.895	3.264	-	-
	P value	-	0.136	0.001	-	-

3.6 Evaluation of Behavioral Areas

The behavioral domain was evaluated using the Patient's Medical Coping Style Questionnaire (MCMQ) to assess the patients' subjective coping attitudes toward the disease.

Comparison of MCMQ scores before and after intervention between the two groups is shown in Table 6. Comparison of MCMQ scores between the two groups of patients before intervention was not statistically significant in the dimensions of confrontation, avoidance, and submission ($P > 0.05$).

After the intervention of CGA nursing + medication, the observation group's attitude toward the disease, including facing, avoiding, and yielding changed. After the intervention, the score of facing the disease in the observation group was 19.86 ± 3.25 , which formed a statistically significant difference from the pre-intervention.

Table 6. The two groups were compared before and after the MCMQ score

	Group	N	Face	Avoidance	Yield
Preintervention	Observation group	45	18.52 ± 4.21	18.11 ± 2.01	9.52 ± 3.89
	Control group	44	18.36 ± 4.25	18.23 ± 2.64	9.56 ± 3.74
	t	-	0.452	-0.305	0.031
	p	-	0.711	0.893	0.884
After intervention	Observation group	45	19.86 ± 3.25	13.42 ± 2.53	7.23 ± 3.08
	Control group	44	18.54 ± 4.36	16.97 ± 2.69	7.07 ± 3.25
	t	-	1.526	2.348	18.324
	p	-	0.000	0.000	0.000

3.7 Comparison of service areas

The service areas were evaluated from the perspectives of patient satisfaction, hospitalization days and hospitalization costs, and health care utilization (including the number of multidisciplinary consultations, the rate of emergency room visits and recurrent hospitalizations 6 months after discharge).

Comparative statistics of service areas are shown in **Table 7**, where patients

in the observation group (CGA care + medication) were statistically more satisfied with treatment during hospitalization, and nursing care during hospitalization and after discharge ($P<0.01$). The observation group received significantly more multidisciplinary consultations, which was statistically significant ($P<0.01$), and the rate of emergency room visits and recurrent hospitalizations 6 months after discharge decreased, which was statistically significant ($P<0.05$).

Table 7. Service domain comparison statistics

Service area	Group	Treatment satisfaction during hospitalization	Nursing satisfaction during hospitalization	Nursing satisfaction after discharge
Patient satisfaction	Observation group	81.5%	96.52%	89.33%
	Control group	63.21%	83.17%	56.24%
	t	5.263	12.331	20.757
	p	0.017	0.003	0.000
Patient health care utilization comparison	Observation group	60.3	20.5	26.4
	Control group	34.7	37.4	38.0
	t	13.049	5.033	4.108
	p	0.001	0.012	0.043

4. Discussion

The prediction of surgical risk is particularly important in elderly patients as a special group of patients undergoing total bladder removal with in situ urinary diversion. There are two reasons for this; first, geriatric comorbidities and geriatric syndromes including frailty, cognitive impairment, nutritional status, and socioeconomic background can lead to an increased risk of postoperative complications and death in patients. Secondly, elderly patients' fear of death, health status, quality of life, and knowledge of the treatment and its side effects can affect their compliance during treatment. The important role of CGA is that it is a thorough assessment and is a powerful complement to the existing modality assessment, which serves as a check for gaps and remedies. In addition, the results of CGA are "prospective" and timely intervention and management can further minimize perioperative risks.

4.1 CGA can comprehensively detect existing and potential health problems in older patients

In the results of this analysis, the application of CGA nursing + medication among 45 elderly patients with total cystectomy in situ urinary diversion in the experimental group was found to reduce the incidence of various common postoperative complications. Among the digestive system complications, 1 case of diarrhea or constipation and 1 case of intestinal obstruction occurred in patients of the observation group. In the control group, 2 cases of diarrhea or constipation and 4 cases of intestinal obstruction occurred.

The conventional model mainly assesses the postoperative status through

observation and patient self-report, without using professional scales, and the results are easily affected by the subjective reasons of the evaluator and the communication method, etc. The advantage of CGA is to implement standardized assessment with scientific, standardized, and validated scales, and the structured assessment model makes the results more objective.

In the study, CGA was applied to assess the sleep condition, and the time of going to bed, the length of falling asleep, the time of waking up, and the time of sleep per night of the elderly patients in the past month were assessed according to the scale. It also mined the causes of sleep disruption and found the causes of sleep disruption, including relieving hands, breathing, coughing, etc., which plays an important reference value for doctors to adjust the treatment strategy.

4.2 The postoperative recovery process can be facilitated by intervening on CGA detection issues

Patients in the experimental group were earlier than those in the control group in terms of the time of first getting out of bed, the time of exhaustion and the time of eating ($P < 0.05$). This is related to the fact that after CGA intervention, elderly patients can get more attention from nurses, resulting in the compliance of postoperative activities of elderly patients being improved due to supervision.

In this paper, we found that the postoperative geriatric rehabilitation indicators of time out of bed, time of exhaustion and time of feeding had a greater relationship with postoperative activities. The reasons for the reluctance of elderly patients to be active after surgery, in addition to the patients' physical weakness, fear of pain, and lack of knowledge about activities, are also importantly related to the caregiver's ability and the helpful support provided by nurses.

4.3 CGA is valuable for patient self-empowerment

When evaluating effectiveness, most scholars have used medical outcomes such as complications, average hospital days, unplanned readmissions, and adverse events for CGA evaluation. There is a lack of subjective indicators of patients' evaluation of their own conditions and experiences, i.e., outcomes reported from the patient's perspective.

The important concept of the nursing profession is to not only provide assistance to individuals who are unable to meet their self-care needs, but more importantly, to help care recipients adapt. For postoperative patients, being able to perform self-management and self-care is also key to postoperative recovery.

The process of CGA application involves both the nurse and the patient. By assessing the patient's physical status, psychological status, functional status, cognitive status, nutritional status, social support, etc., both the nurse and the patient obtain individualized information, which helps to customize comprehensive "patient-centered" interventions and realize the process of patient self-empowerment. From the patient's point of view, comprehensive geriatric assessment can

improve the quality of the patient's postoperative recovery and can be beneficial.

4.4 CGA can help nurses to achieve “health management”

Geriatric patients with total cystectomy in situ urinary diversion need to receive both surgical care for good perioperative observation and care, and holistic attention that is different from that of non-geriatric patients, and cannot be met by focusing on general surgical care alone.

This paper constructs a model that weaves together geriatric and surgical care by educating and training surgical nurses on the concept of geriatric syndromes. The application of the various scales of the standardized and proven CGA helps to identify the complex health problems that exist in elderly patients, which is more comprehensive and holistic than the conventional nursing model. Satisfaction results showed that the experimental group was higher than the control group ($P < 0.05$), objectively reflecting the role of CGA in promoting nurse-patient communication and improving patient satisfaction.

5. Conclusion

(1) Findings

In this paper, CGA nursing + medication is applied to the clinical nursing assessment of elderly patients undergoing total cystectomy in situ urinary diversion surgery to explore the effects of CGA-based medication intervention on postoperative bladder function, complication rate, quality of survival, physical health status, ability to perform daily life activities, average hospitalization days and patient satisfaction.

By screening the study subjects and dividing them into the control group and the observation group, the observation group added CGA care to the routine bladder cancer health care and counseling services of the control group, and constructed a new model of CGA care + medication. Comparative development of postoperative recovery of elderly patients with total cystectomy in situ urinary diversion, the program of CGA nursing + drug therapy can help elderly patients advance the time of first getting out of bed, the time of ventilating and the time of eating, and reduce the incidence of a variety of common complications in the postoperative period. Among the wound complications, there were 2 cases of wound dehiscence in patients in the observation group, 2 cases of wound dehiscence and 5 cases of wound hernia in patients in the control group, and the difference between the two groups was statistically significant ($P < 0.05$). After the CGA nursing care of the elderly patients in terms of cognitive and psychological, social and environmental factors, the overall quality of postoperative survival of elderly patients with total cystectomy in situ urinary diversion was higher than that of the control group ($P = 0.042$).

(2) Research Limitations

This study was attempted only from the perspective of geriatric cystotomy in situ urinary diversion surgery, excluding patients without caregivers, and was

not extended to all admitted patients with other diseases, which is a direction for future research.

The short duration of the study did not allow for the examination of more distant effects of the study after 6 months.

The nursing perspective to promote multidisciplinary cooperation is still weak, and the current high patient flow and relative shortage of medical staff in tertiary hospitals make it difficult for clinical departments in tertiary hospitals to achieve good results in multidisciplinary cooperation and medical integration in the broad sense of CGA.

The study process deeply appreciated the complexity of the disease in elderly patients, the lack of holistic assessment and geriatric specialty knowledge in clinical work, and the urgent need to strengthen the ability to care for inter-specialty knowledge.

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