Function, Quality of Life and Related Factors in Patients with Non-Muscle Invasive Bladder Cancer in Taiwan

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Introduction

Although patients with Non-muscle invasive bladder cancer (NMIBC) have relatively longer survival time, the majority of NMIBC patients (70%) are prone to recurrence and need ongoing intrusive cystoscope and intravesical therapy throughout their follow-up period. These repeatedly intrusive treatments might cause impacts on patients' quality of life (QoL). The purpose of the study is to examine QoL and its related factors in NMIBC patients.

Methods

A cross-sectional study was conducted to recruit subjects from a medical center in North Taiwan. Patients were assessed of their overall QoL, functional domains of QoL by the European Organization for Research and Treatment of Cancer, Core Quality of Life Questionnaire (EORTC-QLQ-C30) .

Results

- A total of 80 patients were recruited.
- **Table 1** showed the background information.
- **Table 2** showed the descriptive of the symptoms distribution as severity.
- **Table 3** showed Relationships between the Quality of life using EORTC QLQ-C30 questionnaire and Its Related Factors. Patients having better overall functional level and physical, emotional and social functions reported to have higher overall QoL (r= .43, .33, .42,.30 respectively).
- Patients with more overall severe symptoms severity, fatigue, pain, and insomnia had worse QoL (r= -.39, -.31, -.29, -.30, respectively.).
- Patients with more financial difficulties reported to have worse QoL (r= -.29, p<.01).

Conclusion

- Although the results indicated that patients have good functioning and mild symptom severity, the overall perception of their QoL was relatively low.
- Future research to use qualitative research to better understand the in-depth experience about their perception of overall QoL is strongly suggested.

Table 1.Demographic and disease/treatment information (N=80)

Variable	N(%)	Mean(SD)
Gender		
Male	53(66.3%)	
Female	27(33.8%)	
Age		68.48(11.4)
Education		
Elementary	15(18.8%)	
Senior high school	28(35%)	
University	37(46.3%)	
Stage		
Ta	51(63.7%)	
TIS	8(10%)	
T1	21(26.3%)	
Recurrence	11(13.8)	
Current Treatment	30(37.5%)	

Table 2. Descriptive statistics of the symptoms distribution as severity (N=80)

Variable	Mean(SD)
Global health status/QOL	63.13(19.57)
Functional scales	
Physical functioning	92.58(13.08)
Role functioning	86.25 (25.27)
Emotional functioning	89.79 (13.65)
Cognitive functioning	89.79 (12.58)
Social functioning	90.21(18.5)
Symptom items	
Insomnia	20.83(28.75)
Fatigue	17.64 (20.44)
Constipation	10.83(21.72)
Pain	10.42(20.09)
Dyspnea	6.25(16.85)

Table 3. Relationships between the Quality of life using EORTC QLQ-C30 questionnaire and Its Related Factors (N=80)

Variable	1	2	3	4	5	6	7	8	9	10
1.Global health status/QOL	1.00									
2. QLQ Function	0.43[b]	1.00								
3. Emotional functioning	0.42[b]	0.58[b]	1.00							
4. QLQ Symptom	-0.39[b]	-0.61[b]	-0.41[b]	1.00						
5. Physical functioning	0.33[a]	0.65[b]	0.23[a]	-0.45	1.00					
6. Fatigue	-0.31[a]	-0.54[b]	-0.27[a]	0.64[b]	-0.56[b]	1.00				
7. Social functioning	0.30[b]	0.60[b]	0.32[b]	-0.31[b]	0.34[b]	-0.29[b]	1.00			
8. Insomnia	-0.30[b]	-0.40[b]	-0.28*	0.48[b]	-0.28*	0.11	-0.22	1.00		
9. Finical difficulties	-0.29[b]	-0.39[b]	-0.22	0.32[b]	-0.10	0.21	-0.41[b]	0.17	1.00	
10. Pain	-0.29[a]	-0.47[b]	-0.30[b]	0.56[b]	-0.43[b]	0.37[b]	-0.23[a]	0.26[a]	0.17	1.00

Note: [a] P<0.05, [b] P<0.01