

Life Satisfaction and General Well-Being among Bladder Cancer Patients Undergoing Radical Cystectomy with Ileal Conduit Diversion

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Abstract: Bladder cancer is considered as one type of cancer that required an extensive surgeries followed by a permanent modification of urine excretion as a basic physiologic processes. It is ranked as the seventh most common cancer in men worldwide , While it is considered as the principle form of cancer in Egypt , affecting mainly males ,due to bilharziasis or chronic Schistosomiasis that is endemic in branches of Nile River. It can be treated by several surgical interventions according to the stage and the grade of the tumor,It ranging from local resection to radical cystectomy which often entails diversion of the urinary flow. Urinary diversion is a condition of long term duration, irreversible, incurable and having many residual features that impose major limitations on the individual functional capabilities. So it is very crucial to assess both life satisfaction and general well-being among those patients.This study will investigate life satisfaction and general well –being as a predictor for patient’s quality of life among bladder cancer patient undergoing radical cystectomy and ileal conduit surgeries. Convenient sample of 100 adult patients will be selected to participate in the current study Life satisfaction and general well-being indices were used in the study. The results of the study revealed an observable decline in the perception of life satisfaction and general well-being in the frequent time of assessment also it was observed that married patients were perceived a better level of life satisfaction patients had child express poorer level of general well-being than the others.

Conclusion and recommendations: it is concluded that ileal conduit as a one type of urinary diversion has a negative effect on both life satisfaction and general well-being .So psychological preparation in the preoperative period is an inevitable for those patients .

Key Words: bladder cancer, ileal conduit, life satisfaction ,general well- being

I. Introduction

Cancer is the most stressful term usually evokes anxiety , disability , despair and even death .It is a cluster of diseases that adversely affect the patient’s lives in all aspects of the life , So it is the most feared of all diseases known to man till now.The stress associated with the diagnosis of cancer may create new problems and worsen existing problems which will lead to additional complicated life Cancer.Net 2014

Cancer is more than a health condition. It is an emotional roller coaster characterized by fears, stress, and uncertainty about the future.Calmclinic 2014. Although, now we live in the era of advanced technologies, cancer still cause the patient to feel more suffers and fears. This suffers and fears is even more devastating especially if the cancer treatment necessitate an extensive surgeries that will result in severe debilitation, disturbed body image and an adverse effect will be arise in life satisfaction and general well- being .

Bladder cancer is considered as one type of cancer that required an extensive surgeries followed by a permanent modification of urine excretion as a basic physiologic processes. It is ranked as the seventh most common cancer in men worldwide,while it is considered as the principle form of cancer in Egypt, affecting mainly males, due to bilharziasis or chronic Schistosomiasis that is endemic in branches of Nile RiverKhaled 2013& Michael et al2015.

Schistosomiasis was first linked to urinary bladder cancer by Ferguson 1911 in Egyptthe urinary bladder cancer previously accounted for about 31% of the total cancers in Egypt that subsequently decreased to 12 % in recent years Gouda et al2007

Bladder cancer can be treated by several surgical interventions according to the stage and the grade of the tumor,it ranging from local resection to radical cystectomy which often entails diversion of the urinary flow.

Urinary diversion modalities range from incontinent urinary diversion through an abdominal stoma (ileal conduit diversion) to continent urinary diversion to orthotropic bladder replacementBhaskaret al2010. It is a condition of long term duration,irreversible, incurable and having many residual features that impose major limitations on the individual functional capabilities.

In addition to the above mentioned problems, the patients have to move through different phases of cancer trajectory starting with diagnosis, treatment and survivorships .It is an endless chain of stress the patients have to pass through Mohamed et al 2012.

Today the overall aim of any treatment modalities is to: eradicate the disease, prolong life and maintain an acceptable level of quality of life Ali et al 2015.

Life satisfaction and general well- being are considered as predictors of quality of life in which satisfaction with one's health was revealed the most important predictor of life satisfaction and thus contributed substantially to general well- being (Wale et al 2006) (Tate & Forchheimer 2002) & (Saber 2014.)

It is important now to assess and evaluate the predictor of quality of life to be able to assess and judge the effectiveness of specific therapeutic intervention. So, it is very crucial to assess both life satisfaction and general well –being for the patients with radical cystectomy and urinary diversion surgeries, because it is apparent that, the more the patient is satisfied the higher the level of adaptation and the high sense of well- being which will lead to patient complete the therapeutic course with maximum level of adherence and compliance. Moreover, those patients will control experienced unpleasant symptoms with lowest harm and can overcome these symptoms, especially those patients need to be committed to a long term self-care practices for stoma , changing pouch, follow up and life style modification for the rest of their lives Ustudag & Zencirci 2015 .

So, this study tend to investigate life satisfaction and general well-being as a predictor for patient's quality of life among bladder cancer patients undergoing radical cystectomy and illeal conduit diversion surgeries .

II. Aim of The Study

This study will investigate life satisfaction and general well –being as a predictor for patient's quality of life among bladder cancer patient undergoing radical cystectomy and illeal conduit surgeries.

III. Research Methodology

1-Research design:

Descriptive design will be used in this study

2-Setting:-

The study was conducted at one Cancer Institute affiliated to Ministry of Health, in Egypt.

3-Subject:-

Convenient sample of 100 adult patients who fulfill the following criteria:-

- Age ranging from 41-65 years.
- Patients diagnosed as bladder cancer and scheduled for total cystectomy and urinary diversion operation.
- Free from any associated chronic condition such as heart disease, diabetes mellitus, chronic obstructive pulmonary disease, cerebrovascular accident.
- Conscious, able to communicate.

4-Tools of the study:-

Tool (1): Health profile for patient with bladder cancer assessment sheet.

This tool consists of two parts:-

Part(A): Related to socio-demographic data namely age, sex, education, occupation, marital status, number of children, length of hospitalization and date of surgery.

Part(B): Includes data about the health profile as:-

- The patient's complaints on admission as dysuria, hematuria.
- History: - History of bilharzias, previous cancer.
- Clinical investigation:- laparoscopy, CT scan, type of schedule diversion.

Tool (2): The index for life satisfaction

This tool was developed by Walker and Rosser 1990. It is comprise 36 items describing patient's satisfaction or dissatisfaction in relation to the following dimension of life: activity, life goals, self-esteem, social and family supports the financial, religious. The index total score is 216 point with score of 162 or more indicating high level of satisfaction, and scores ranging from 109 to 161 points indicating a fair amount of satisfaction and scores of 108 or less indicating dissatisfaction.

Tool (3): The index for general well being

This tool was developed by Dupay 1987. It is based on 18 bipolar responses. Dimensions investigated deal with personal attitudes, living style and outlook on life, health and support. A total score of 124 points are

assigned to responses, with scores rating from 124 to 94 point indicating a high sense of well-being, scores rating from 93 to 62 indicate a fair sense of well-being and a score of 61 or less indicating a poor sense of general well-being.

These both indexes (life satisfaction and general well-being,) were tested by the researcher for, applicability and translated into Arabic and modified to suit Egyptian circumstances and culture.

Filed work

- 1-Official permission to carry out the study from the responsible authoritative was obtained.
- 2-Patients included in the study were identified using the selection criteria.
- 3-Patients consent was obtained to participate in the study after explaining the aim of study and complete disclosure of the study was assured.
- 4-Life satisfaction index, general well-being index were used to collect the basic and general data.
- 5-Data collection:

Data was collected within 12 month's period in the Cancer Institute, from beginning of December 2014 to the end of December 2015. Patient's selection was done in accordance with the pre-determined sample selection criteria.

6-Each tool from the study tools were administered 3 times individually topatients by the researcher:

- 1-During the pre-operative period to establish an entry baseline data.
- 2-Three months after surgery.
- 3-Six months after surgery

Statistical Analysis

The collected data was organized, tabulated and statistically analyzed using SPSS software statistically computer package version 18. The number and percent distribution was calculated chi-square was used as a test of significant at $P < 0.05$ for interpretation of result .

Ethical Consideration:

The pertinent research and ethical committees and all the legal guardians of the patients approved the study protocol. Signed informed consent was obtained from every patient before inclusion in the study. No hazards were present. Participants were assured of confidential; and anonymity was assured by assigning a number for each patient instead of names to protect their privacy. Data were only available to the researchers and participants.

IV. Results

Table I: Socio-demographic Characteristics of the studied patients in relation to sex.

Variables	Sex					
	Males		Females		Total	
	n=61		n=39		N=100	
	n	%	n	%	n	%
Age in years:						
-<50	17	27.9	18	46.2	35	35.0
- >50	44	72.1	21	53.8	65	65.0
Residence:						
- Urban	17	27.9	17	43.6	34	34.0
- Rural	44	42.1	22	56.4	66	66.0
Education:						
- Illiterate or read and write	41	67.2	26	66.7	67	67.0
- Primary & secondary	15	24.6	13	33.3	28	28.0
- University	5	8.2	0	0.0	8	8.0
Occupation:						
- Professional.	15	24.5	5	12.8	20	20
- Skilled worker.	10	16.3	-	-	10	10
- Unskilled worker.	10	16.3	-	-	10	10
- Farmer.	40	65.6	20	51.2	60	60
Marital status:						
- Single	8	13.1	6	15.4	14	14.0
- Married	36	59.0	17	43.6	53	53.0
-Divorced	1	1.6	2	5.1	3	3.0
-Widow	16	26.2	14	35.9	30	30.0
Having children:						

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-Yes	43	70.5	24	61.5	67	67.0
- No	18	29.5	15	38.4	33	33.0

Table I :Socio-demographic Characteristics of the Studied patients in relation to sex., This table illustrates that 61 % of the total sample were male, while 65 % were among the aged group less than or equal 50 years. The majority of the sample 66 % were resident of rural areas, while 34 % of the sample were from urban. In relation to education 67 % of the patients were illiterate or red and write regarding the occupation, 60% were farmers, while 53 % were married, and 67.6 % of the total sample have children.

Table II: Clinical data of the studied patients in relation to sex

Variables	Sex						X ²	P
	Males (n=61)		Females (n=39)		Total (n=100)			
	n	%	n	%	n	%		
Duration of hospitalization:								
<2 weeks	19	31.1	16	41.0	35	35.0	1.020	0.312
>2 weeks	42	68.9	23	59.0	65	65.0		
Complaint before operation:								
- Hematuria	51	83.6	30	76.9	81	81.0	0.691	0.406
- Pain	6	9.8	2	5.1	8	8.0	FE	0.477
-Dysuria	4	6.6	7	17.9	11	11.0	FE	0.103
Complaint after operation:								
- No complaint	9	14.8	8	20.5	17	17.0	0.559	0.455
- Pain	25	41.0	12	30.8	37	37.0	1.065	0.302
-UT infection	6	9.8	1	2.6	7	7.0	FE	0.241
-Delayed wound healing	20	32.8	18	46.2	38	38.00	1.804	0.179
- Others	1	1.6	0	0.0	1	1.0	FE	1.000
Investigations:								
- Laparoscopy	47	77.0	32	82.1	79	79.0	0.359	0.549
- CT scan	1	1.6	0	0.0	1	1.0	FE	1.000
- Sonar	13	21.3	7	17.9	20	20.0	0.168	0.682

Table II : Clinical data of the studied patients in relation to sex. This table shows that about two thirds of the total sample were hospitalized for a period of two weeks and more. Eighty one of the total sample complaints from hematuria before surgery, while in post-surgery 37 % complaints of pain, and 38 % complaints of delayed wound healing.

In relation to the investigation, the majority of the sample 79% were investigated using laparoscopy to confirm the diagnosis.

Table III:Life satisfaction Index among studied patients

Period of assessment	Level of satisfaction					
	High level		Fair level		Dissatisfied	
	No	%	No	%	No	%
Pre-operative	20	20%	77	77%	3	3%
3 months post-op	1	1%	62	62%	37	37%
6 months post-op	2	2%	46	46%	52	52%

Table III illustrates that there is an obvious decline in the level of patient's satisfaction in the three period of assessment, there was a 20% of patients who perceived high level of satisfaction preoperatively decreased to 1%, 2% 3 and 6 months postoperative, also there is only 3% of the patients were dissatisfied in the preoperative period increased after 6 months to be 52%.

Table IV: General-Well Being Index among studied patients

Period of assessment	General-Well Being					
	High sense		Fair sense		Poor sense	
	No	%	No	%	No	%
Pre-operative	16	16%	81	81%	3	3%
3 months post-op	2	2%	56	56%	42	42%
6 months post-op	2	2%	44	44%	54	54%

Table IV showed that, there is also a noticeable decrease in the level of general well-being of the patients, the data presented showed that 16% of the patient with high sense of well-being preoperatively extremely decreased to 2% 3 and 6 months postoperatively. Also the decrease is to be clear in the patients with poor sense of well-being who were only 3% preoperatively and increased to be 42% and 54% 3 and 6 months postoperatively.

Table V:Life satisfaction index among studied sample pre & postoperative in relation to patient’s variables.

Patient’s Variable	Life satisfaction					
	Pre-operative		3months post-op		6 months post op	
	X ²	P	X ²	P	X ²	P
1- Age	2.473	0.116	1.757	0.185	0.007	0.933
2- Sex	0.011	0.918	1.191	0.275	0.498	0.480
3-Rsidence	0.178	0.673	0.311	0.577	0.045	0.832
4-Education	0.045	0.832	0.284	0.594	0.244	0.622
5-Marital Status	2.900	0.089	3.660	0.056	9.192	0.002*
6-Child bearing	0.045	0.0832	8.946	0.003*	6.186	0.013*

Table V: showed that there are a significant correlation between the life satisfaction index and the marital status 6 months post-operative and with the child bearing 3 and 6 months post-operatively (P = 0.002, 0.003and 0.013) respectively.

Table VI:General Well- Being index among studied sample pre & postoperative in relation to patient’s variables.

Patient’s Variable	General Well- Being					
	Pre-operative		3months post-op		6 months post op	
	X ²	P	X ²	P	X ²	P
1- Age	0.641	0.423	0.955	0.329	0.002	0.966
2- Sex	1.569	0.210	2.261	0.133	1.463	0.227
3-Rsidence	0.826	0.177	0.095	0.758	0.023	0.879
4-Education	0.027	0.871	0.137	0.711	0.122	0.726
5-Marital Status	3.701	0.054*	4.560	0.033*	9.384	0.002*
6-Child bearing	0.026	0.871	40905	0.027*	4.886	0.027*

Data presented in table VI showed that there are a strong significant correlation between general well – being index and both marital status pre-operatively , 3 and 6 months post-operatively ,and with the child bearing in both 3 and 6 months post-operatively .

V. Discussion

Bladder cancer is the principle form of cancer in Egypt, it’s diagnosis and treatment may affect patient’s life, producing many stressors with varying nature, that negatively affect the patient’s quality of life,Once diagnosed, cancer has the potential to affect nearly every aspect of an individual’s life, including the physical, psychological, interpersonal, vocational, and spiritual domains. Survivors are more likely to report psychological problems, poorer health, and functional limitations Ann et at 2013 So this study was conducted with 100 bladder cancer patients scheduled for ileal conduit urinary diversion to investigate the effect of the urinary diversion on the patient’s level of satisfaction and general well-being.

The findings of this study denoted that the majority of patient were male and over the age of 50 years. This findings is in line with Hinkle and Cheever2014 who stated that, bladder cancer incidence is more frequent in men than women by 2: 5 times. Furthermore it is less commonly seen in those younger than 40 years of age and most commonly occurs in people between the ages of 50 to 70 years. Most of the patients in the present study were married and had children, this is due to the fact that the age of occurrence for bladder cancer is above 40 years, and it is less common to find persons in this age group unmarried. The, majority of the included sample were illiterate farmers, this is due to the fact that the sample is originally from the rural areas.

Regarding the results of the studied patients, the study showed that, the main problem which affect patient’s physically preoperative was hematuria, while postoperative were, pain, delayed wound healing and the diversion stoma. This result is in agreement with the American Cancer Society 2016, which found that, the presentation of the bladder cancer usually take the form of painless, intermittent hematuria.

This study revealed an adverse effect of bladder cancer on both life satisfaction and general well-being index which is expressed through the declining in the level of life satisfaction and general –well being perceived by the studied patients and the observable deterioration from the first assessment in preoperative period till 3 and 6 moths post-operative, it can be explained by the fact that in the pre-operative period the patients complained only from the manifestations of the disease but they still able to maintain their ordinary pattern of life and manage their responsibilities effectively, on contrast to those patients in the post-operative period with the illeal conduit , by the time the adverse effect of the urinary diversion arise and interfered with the all aspects of the patient’s life , this can be supported by the Asgari et al 2013who stated that problems of urinary leakage , stoma appliance and poor perception of body image are problems that was found to bother the patient with ileal conduit and can affect their perception of life satisfaction and general well-being.

It can be noticed that married patients had a fair level of life satisfaction and general well-being 3 months postoperatively in corresponding to the single patients, this results may be due to the fact that married patients are received emotional support from their families, also marriage is considered as a basic tasks of life that the patients already achieved so the married persons usually secured and satisfied, this comes in line with James Bet al 2013. Who found that marriage is associated with a longer life and better health in both men and women, so anticipation of being married would act as a buffer that protect person against psychological disturbances as a result of chronic diseases.

Moreover, after three and six months postoperative, the married patient were in poor sense of well-being in corresponding to the single patients, this can be explained by the fact that, the married patient usually occupied by the responsibilities toward his family, which he can't perform it as before, because the diversion leave some sort of disability. This comes in line with The Cancer.Net 2014 illustrate that the patient has to expect that the roles, responsibilities, and priorities he is familiar with in a marriage or long-term partnership may shift after a cancer diagnosis and continue to change throughout treatment and recovery which may add additional burden on the patients.

Also the study showed that the patient who had not children were in poor sense of well-being after three and six months postoperative, this may be due to the fact that the operation leaves a change in body functions and affect the patient's sexuality and productivity and this issue is very important for the patients who has not child because there is a developmental task of the life of adulthood which did not achieved yet so it adversely affect the patient's sense of general well-being.

VI. Conclusion

This study was carried out to investigate the life satisfaction and general well-being among bladder cancer patients undergoing radical cystectomy and ileal conduit diversion and to investigate the selected patient's variables on the perception of both life satisfaction and general well-being.

The study revealed a decreased in the level of both life satisfaction and general well-being 3 and 6 months post-operative, Also the study indicate a strong significant relation between marital status, presence of children and both indices 3, 6 months post-operative.

Based on the results of the current study the recommendations are summarized as:

- 1- Workshops should be planned and conducted for the nurses not only in relation to the physical care of patients with urinary diversion but also in relation to the role of the nurse as an emotional support agent to the patient
- 2- Ostoma club or (stoma care unit) must be developed to discuss all issues that may be important to the ostomatized members.
- 3- Application of continuous quality monitoring process using the quality of life indicators (life satisfaction and general well-being indices) to the management of each group of patients with diversion may prove to be an effective means of improving patient outcomes including quality of life.
- 4- Further researches are recommended using larger sample and different types of urinary diversion techniques.

Limitations of The Study

- 1- One type of urinary diversions techniques (ileal conduit) was only investigated in this study.
- 2- There is no specific health related quality of life tool specified to bladder cancer only to be used in the study.
- 3- The study setting was limited to only one of eight cancer institutes in Egypt so, generalization can't be done.

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