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Research Article

## GALLBLADDER CANCERSURVIVORS AND QUALITY OF LIFE

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### ABSTRACT

**Background:** This study was to explore the personal history signs and symptoms, grading and types of treatment received by gallbladder cancer patients. Association of Quality of life in Gallbladder cancer patients was assessed with different factors i.e., Socioeconomic status, education, stage and treatment. Quality of life was reviewed at 0, 1, and 3 months in 100 patients attending general surgery and surgical oncology OPD. **Method:** Information was collected by quality of life questionnaire containing five parameters, physical well being, social wellbeing, emotional wellbeing, functional, well being, and disease specific wellbeing which was obtained from facit.org. FACT Hep Hindi (version 4) was used by the permission of copy write owner. Self developed questionnaire related to symptoms, sign, stage and treatment of patients were also included. Association of QOL in Gallbladder cancer patients with different factors i.e. socioeconomic status, education, stage and treatment of patient have been assessed at the time of admission. The association was assessed by dividing the patients into three groups according to their score of mean  $\pm$  SD range poor, moderate and good QOL. **Result:** Mean age is 53 years; range is (25-80). Male/female ratio is 1:2.8, 65% patients were literate. Diet veg. & Non-veg. were 55% and 45% respectively. 96% patients were married. Mean score of 100 patients in PWB, SWB, EWB, FWB, HCS, FACT-Hep score is 16.6, 19.6, 14.19, 12.88, 41.96, 103.76 respectively, which is found to be average. Most of the patients found to be in late stage with poor QOL.

**Keywords:** Functional assessment of cancer therapy, Quality of life, Gastrointestinal tract

### INTRODUCTION

The process of assessing quality of life is to measure the extent of happiness which is although not sufficient but necessary for wellbeing of gallbladder patient.<sup>1,2</sup> Particularly at time when healing seems to be unrealistic, quality of life becomes the focus of care and treatment in patients with carcinoma of the gallbladder. The gallbladder cancer is insidious and when it is diagnosed suddenly it is shocking for the patients as well as the relatives, and its treatment has significant impact on the person's physical functioning, mental health well-being, social and functional well being, and thereby causes disruption in the quality of life in these patient.<sup>3,4</sup> Some important factors like patient education, spousal

support and work status, financial stability etc., have been found to influence Quality of life (QOL) in the gallbladder cancer patient.<sup>5</sup> The quality of life QOL is a central concern in any evaluative research. To improved quality of life in gallbladder cancer patient is probably the most desirable outcome of this research study.<sup>2</sup> QOL is defined as degree of satisfaction or dissatisfaction felt by people on various aspects of their life and experience of their life.<sup>2,3</sup> Quality of life is a frequently used phrase, but it lacks a precise and consistent definition. According to World Health Organization (WHO) describes many complexities in an individual life. A person perceives a position in life according to his goal,

expectation of his beloved one, family, and his own acceptance, standard of work he can do, his strength his weakness in the context of the culture and value. It is a concept which have no limitation and it affects in complex way by the person's physical health, psychological state, level of independence, social relationships, and also complexity arises with gallbladder cancer.<sup>4,6</sup>

Carcinoma of the gallbladder is a common health problem in Western Bihar eastern Uttar Pradesh and regions of India constitutes 4.44% of all types of cancer and 0.3% of all admissions in our hospital.<sup>7</sup> In this study QOL in cancer gallbladder patient, have been assessed to know the basic needs and problems, and accordingly implement treatment modalities in cancer of gallbladder patients to improve their QOL.

## METHODOLOGY

This study was conducted among 100 consecutive patients who attended general surgery and surgical oncology outpatient department of the University Hospital, Varanasi, India. This study was approved by ethical committee of Institute of Medical sciences BHU. In the present study 100 patients of both sex and all new cases with biopsy proven carcinoma of the gallbladder, 18 years of age or older was included. Current psychosis, and health too poor to complete questionnaire was excluded from the study. The participants were mostly from eastern UP and Bihar. A quality of life questionnaire containing five parameters (physical wellbeing, social wellbeing, emotional wellbeing, functional wellbeing and disease specific wellbeing) was obtained from [facit.org](http://facit.org). FACT Hep Hindi (version 4)<sup>8,9</sup> was used by the permission of copyright owner. FACT-Hep (version 4) is a sensitive tool in measuring the QOL in the patients with carcinoma of the gallbladder.<sup>8</sup>

The study and questionnaire were explained to all the participants. While collecting the data the questions were read to the participants and the answers were recorded. Question related to the variables were answered using a five-point scale 1-completely disagree to 5-completely agree (totally agree).<sup>10</sup> After the patient's clear understanding has been confirmed, the patient is encouraged to complete every item in order without skipping any. Some patients may feel that a given question is not applicable to them and they, therefore skip the item altogether.<sup>11,12</sup> The response is circled, which is most

applicable. Frequency table was prepared for each and every important variable. QOL is classified into three groups according to their mean range poor, moderate and good. Socioeconomic status is computed by modified B.G. Prasad scale.<sup>13-16</sup> The information from coded schedule was transferred in to a computer using Statistical software for performing various statistical calculations. Data analysis is done according to fact Hep guidelines.<sup>17-18</sup> Subscale are Physical wellbeing (PWB) score range was 0-28, Social wellbeing (SWB) score range was 0-28, Emotional wellbeing (EWB) score range was 0-24, Functional wellbeing (FWB) score range is 0-28, Hepatobiliary cancer subscale (HCS) score range is 0-72.<sup>16</sup>

## RESULTS

**Table 1:** Scoring is done according to FACT-Hep guidelines<sup>16</sup> of 100 patients and their review FACT-Hep total score, range is 0-180. Mean score of 70 patient in PWB, SWB, EWB, FWB, HCS, FACT-Hep score were 16.7, 19.6, 13.6, 12.6, 41.6, 103.76 respectively, which is found to be average. Mean age was 53 years (range 25-80). Male/female ratio is 1:2.8. Total 65% patients were literate (Table 2). Diet veg. & Non-veg. were 55% and 45% respectively (Table 4). Total 96% patients were married. In this study, 15 cases have been expired within 0-1 month, 85 cases were alive. And at review of 3 months 46 Patients were remaining in mostly having poor QOL these patients found to be in late stage. Correlation among the parameter score and sub score is found to be significant.

Descriptive analysis of 100 Ca Gallbladder patients. In the clinical manifestation, most of the patients had symptoms of pain, fever, jaundice, abdominal distension, nausea and vomiting, loss of appetite, weight loss (Table 3). In history of addiction, most of the patients were tobacco chewer. Family history was not significant, Examination, grade, types of intervention treatment patient is getting is described. (Table 6,7)

Association of QOL in Gallbladder cancer patients with different factors (Table 8) Shows that medium 34% and upper medium 22% group of people are affected. Table 3b: shows 55% literacy rate and 45% illiterate, having 32% moderate QOL and 37% educated having moderate QOL Illiterate having better QOL than literates. (Table 9,10)

**Table 1: Scoring 100 patients and their review:** Scoring is done according to FACT-Hep guidelines<sup>15</sup>

Subscale	Mean score On the beginning(100 cases)	Mean score after 1month85(cases)	Mean score 3month (46 Cases)	Score range	P Value
PhysicalWellBeing	16.7score	16.88	17.84	0-28	0.00
SocialWellBeing	19.6	17.87	19.62	0-28	0.00
EmotionalWellBeing	14.19	13.54	14.92	0-24	0.00
Functional WellBeing	12.88	13.92	14	0-28	0.00
HepatoCellularScore	41.96	46.74	48	0-72	0.00
FACTHep	103.76	104	105	0-180	0.00

Significantlevel PValue 0.00 level

**Table 2: Descriptive analysis of 100 Carcinoma of Gallbladder patients:**

Age group			Total	Male	Female
1- 30	31 – 60	Above 60			
1	75	24	100	23	77

**Table 3: Clinical manifestations**

FACTORS	N=100
Pain(Mild)	97.6
Pain(Severe)	40
Fever	31
Jaundice	32
Abdominal distention	39.2
Nausea and vomiting	48
Loss of appetite	68.8
Palpable gallbladder	68.80%
Icterus jaundice	42.4%
Left Supraclavicular node	25.6%
Lump	50.4%
Ascitis	17.6%

**Table 4: History of addiction**

History of tobacco chewing	N=100	
History of Smoking	10	Last 6years
History of alcoholism	6	Last 10 years
Dietary habit	N=100	
Vegetarian	55	55%
No vegetarian	45	45%

**Table 5: Histology report**

Histological type	N=100	%
Adenocarcinoma,	98	98.4
squamous cell carcinoma	1	.8
insitu carcinoma	1	.8

**Table 6: Grade of patient**

	N= 100	%
1 <sup>st</sup> Grade	9	8.8
2 <sup>nd</sup> Grade	13	12
3 <sup>rd</sup> Grade	45	44.8
4 <sup>th</sup> Grade	33	33.6

**Table 7: type of treatment**

Intervention	N=100	%
Surgical resection	37	29.6%
Chemotherapy	56	84.67%
Radiotherapy	4	3-2%
Adjuvant therapy	46	36.8

**Table 8: Socioeconomic Status and literacy**

Economic Status	Good QOL1	Moderate QOL1	Poor QOL1	Total
Poor	3	3	1	7
Lower medium	3	3	1	7
Medium	3	27	4	34
Upper medium	2	17	3	22
High	0	0	0	0
Chi square <sup>2</sup> -9.537, df-6, p--0.146				
Illiterate	10	32	3	45
Primary	4	25	0	29
High school	4	4	5	13
Inter	1	4	2	7
Graduate	0	4	2	6
Post graduate	0	0	0	0
Chi square <sup>2</sup> -23.01, df-6, p-.003				

**Table 9: Association of treatment and QOL**

Treatment	Good QOL <sub>3</sub>	Moderate QOL <sub>3</sub>	Poor QOL <sub>3</sub>	N
Surgery	3	20	11	34
Chemotherapy	4	31	13	48
Radiotherapy	0	2	1	3
Adjacent	4	6	5	15
Total	14	59	30	100
Chi square <sup>2</sup> -.581 <sup>a</sup> df-.4 p—0.04 (3 <sup>rd</sup> month)				

**Table 10: Association of Stage and QOL of patients**

Stage	Good QOL <sub>0</sub>	Moderate QOL <sub>0</sub>	Poor QOL <sub>0</sub>	N	Good QOL <sub>1</sub>	Moderate QOL <sub>1</sub>	Poor QOL <sub>1</sub>	N	Good QOL <sup>3</sup>	Moderate QOL <sub>3</sub>	Poor QOL <sub>3</sub>	N
Stage-1	1	8	0	9	0	7	2	9	0	1	3	4
Stage-2	2	17	10	29	1	15	10	26	0	3	10	13
Stage-3	4	24	5	33	2	19	5	26	1	9	4	14
Stage-4	8	19	2	29	4	12	8	24	3	6	5	14
Chi square <sup>2</sup> 14.24, df-6, P-0.027				Chisquare <sup>2</sup> 6.85, p-0.033				<sup>2</sup> -11.84 df-6 p—0.077				

**QOL<sub>0</sub>= Beginning, QOL<sub>1</sub>= 1month, QOL<sub>3</sub>= 3<sup>rd</sup> month**

## DISCUSSION

QOL in a person is not stable it changes with perception of wellbeing, we can observe differentiation of QOL with time duration between first visit and investigation, second visit with treatment modalities, their waiting time and also impact of treatment process whether regression or progression of their health. Table 1 indicates that in starting 100 patients with gallbladder cancer were observed within one month 15 cases were expired. Within 0- 1 month 85 cases were remaining. And in a review of 3 months 46 Patients were remaining patients were having average QOL, and these patients were found to be in late stage. Correlation is significant in QOL parameter score and sub scores.

During the review we saw that when a patient comes to the hospital for treatment, overall QOL of the patients were average. In the first month, the patient's QOL was declined because they have to go through many investigations and psychologically patient is very upset of his diagnosis and treatment is unable to accept the reality. During third month, patient accepts the reality that he is suffering with cancer and cope with his treatment procedures although it is invasive and painful having so many side effects of the chemotherapeutic drugs he bargains with God for better health and promises himself not to continue his smoking, chew tobacco and alcohol consumption, their quality of life was slightly improved with the treatment.<sup>6,8</sup>

Table 2 shows the descriptive analysis of 100 patients. The age groups into 3 range. Less than 30, 30 to 60, more than 60 they were found 1, 75, 24 percent respectively. The male female ratio is 1:3.3, vegetarian, non vegetarian is 55% 45% respectively,<sup>20</sup> in clinical manifestation, most of the patients had symptoms of pain, fever, jaundice, abdominal distension, nausea and vomiting, loss of appetite,

weight loss. On examination of the patient, the important factors are palpable gallbladder, icterus jaundice, left supraclavicular node, lump, ascitis. the patients came for the treatment is in advanced stage 3 and 4. 90% of cases with large gallstones were found to be the most significant risk factor for developing gallbladder cancer. Larger gallstones and chronic inflammation of the gallbladder from infection also increases the risk for gallbladder cancer. The most common symptom is pain in the upper right portion of the abdomen, Patients with gallbladder cancer may also report symptoms such as nausea, vomiting, weakness, jaundice, skin itching, fever, chills, poor appetite, and weight loss.<sup>20-22</sup>

According to IA Malik (2003) (77%) patients were women Mean age was 55 years (+/-11 year) The majority of patients had a history of symptomatic gallbladder disease. The commonest presenting symptom was pain, followed by nausea and vomiting, weight loss, and jaundice. 25% of patients had a palpable abdominal mass.<sup>22-24</sup> History of addiction was found to be associated with gallbladder cancer 48% of patients were addicted with tobacco, smoking and alcohol since 5 to 15 years. In history of addiction 32% patients were tobacco chewer. Family history was not significant.<sup>25</sup>

In table 3 Association of QOL in gallbladder cancer patients with different factor was assessed. Patient of medium and upper medium socioeconomic family status were 34% and 22% came for the treatment. No higher income group was found in the study as they may prefer private nursing homes, and poor people were less as they were too poor to afford the surgical, chemotherapeutic treatment and as they came to know they are suffering from cancer they never come for treatment in hospital and have symptomatic management in their locality, because of poverty

they are unable to afford the treatment. Education shows 55% literacy rate and 45% illiterate. The illiterate patient having 10% good and 32% moderate, 3% has poor QOL as they don't understand the severity of disease as educated people having 9% good, 37% moderate and 9% patients having poor QOL. The educated patient found to be emotionally upset and worry about the disease, treatment modalities and rehabilitation.

An association of QOL with a stage was assessed at 0 months, 1 month and 3 months. At the time of admission 0 month, 9%, 29%, 33%, and 29% patients were found in stage 1, 2, 3, 4 simultaneously total patients were 100.<sup>26</sup> After one month 4, 26, 26, 24 in stage 1, 2, 3, 4 simultaneously total number of patients were 85, After 3 months gallbladder cancer patients were found 4, 13, 14, 14 in stage 1, 2, 3, 4 simultaneously total number of patients were 47, gallbladder cancer cannot be discovered in early stage we can find maximum patient in 3<sup>rd</sup> and 4<sup>th</sup> stage.<sup>26</sup> Staging can be estimated by spread of cancer from its origin organ, treatment is ineffective and prognosis is poor when patient comes in advance stage and grade.<sup>24,27,28</sup> Gallbladder cancer patients in present study receiving treatment in which Surgery patients were 34%, chemotherapy patients were 48%, radiotherapy were 3%, adjuvant therapy were 15%. These patients were having good, moderate, and poor QOL, in Surgical intervention was 3, 20, 11, in chemotherapy treatment 4, 31, 13, in radiotherapy 0, 2, 1 and in adjuvant therapy is 4, 6.5, simultaneously.<sup>22,23</sup> As we can see in literature QOL in gallbladder cancer can be assessed by physical, psychological and social condition of the patient.<sup>27</sup> Patient have adverse effect on their QOL due to metabolic effects of cancer.<sup>25</sup> The deteriorating effects of chemotherapy on cancer patients are well documented, so there is the need and impact of psychological, behavioral, or educative interventions in improving quality of life, in those patients.<sup>27-28</sup> In the developing countries, cancer centers have a very high patient load and providing quality treatment and achieving good survival is still the first priority. However, in the pursuit of quality of survival, the quality of life is often ignored. Psychological and/or behavioral interventions that could enable the patient to cope better, be independent and well informed about the treatment which might improve quality of life of remaining years.<sup>20-22</sup> These factors enable the

health care provider to design and individualized treatment plan.

## CONCLUSION

This study gave tentative exploration in predictors of health related quality of life. Mean score of QOL in 100 patients was found to be average, Most of the patients found to be in late stage. The QOL is associated with different factors i.e. socio economic status, education, stage and treatment. The presence of chronic illness is associated with deteriorating QOL. Further follow up work is needed to assess QOL in different perspectives and its effect on patient's improvement and survival.

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