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Assessment of the Quality of Life of Patients with Liver Cancer being Treated at the Cancer Center of Bai Chay Hospital, Quang Ninh Province in 2019

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Abstract---Objectives: To assess the quality of life of liver cancer patients being treated at the Cancer Center of Bai Chay Hospital, Quang Ninh province in 2019. Methods: A cross-sectional descriptive study using the FACT- Hep questionnaire. Results and conclusions: The quality of life of patients at levels of no effect, little influence, much influence and great influence all accounted for 25%. The level of not affecting the health of the group of patients under 60 years old was higher than that of the group of patients over 60 years old. People with many and many underlying diseases accounted for 26.3% and 33.3% higher than those without background diseases.

Keywords---diseases, FACT- Hep, liver cancer, patients, quality life.

Introduction

According to statistics of the World Health Organization (WHO) in 2018, liver cancer ranked 5th in incidence and 3rd in mortality rate among cancers. In liver cancer patients, symptoms reported to be severe enough to affect the patient's quality of life were sleep disturbances, decreased sexual function, ascites, itching, fatigue, or cramps. . In liver cancer, in addition to the symptoms of the disease, the treatments themselves can be severely debilitating and it is necessary to consider the impact of the treatments on the patient's health-related quality of life. [3]. In 2006, Jenifer L.Steel studied the difference in quality of life (CLCS) of patients with liver cancer, chronic liver disease and controls, showing that the change in quality of life was both statistically significant. , has clinical significance. The study concluded that liver cancer patients have poorer health-related quality of life than patients with chronic liver disease or the general population [5]. Next, Lewandowska, A et al. [14] stated Life-quality tests are the basis for assessing the condition of oncological patients. They allow for obtaining valuable information from the patients regarding not only the symptoms of disease and adverse effects of the treatment but also assessment of the psychological, social and spiritual aspects. And VT Binh, DTN Huy. [30] suggests solutions for Treatment of Patients at Hospitals in Vietnam and supported by (PTB Ngoc et al [24]; VT Binh, DTN Huy [32]). Therefore, the quality of life of liver cancer patients is a health issue of increasing concern, in order to improve the quality of life for patients, we conduct a research on the topic: "Evaluating quality of living of liver cancer patients being treated at the cancer center of Bai Chay hospital, Quang Ninh province in 2019".

Subject and Methodology

- Place, time, research object
 - Research location: Oncology Center - Bai Chay Hospital - Quang Ninh province.
 - Research subjects: Patients diagnosed with liver cancer are being treated at Cancer Center - Bai Chay Hospital - Quang Ninh province.
 - Research period: from June 2019 to May 2020.

- Research Methods

- Study Design: A cross-sectional descriptive study.
- Sample size and sampling method:
 - Sample size: calculated according to the formula:

$$n = Z^2_{(1-\alpha/2)} \frac{p \cdot (1-p)}{d^2}$$

n is the number of patients participating in the survey

$Z_{(1-\alpha/2)}$ is the confidence level taken at the threshold probability = 5%

p is the percentage of malnourished patients in cancer patients is 70% [1].

d is the desired precision (estimated to be 0.09)

Therefore, the calculated sample size will be: 100 patients, in fact 104 patients participated in the interview.

- Sampling method
Actively choose the cancer center of Bai Chay hospital, Quang Ninh province, select all patients who come to the examination and are diagnosed with liver cancer and treated at the cancer center from June 1 to December 31, 2019. meet the sampling criteria and sample type.

- Techniques applied in the study: Using the FACT-Hep questionnaire.
- Methods to limit errors:
- Limit errors by organizing thorough training. The toolkit is synchronously tested and standardized before conducting the investigation.
- Data processing:
Data were processed by Epi Data and SPSS 22.0. Calculate the mean score of the patient's overall quality of life based on the quartiles with 3 landmarks 25% - 50% and 75%. The mean, standard deviation, and difference between the two mean values were tested using the Mann-whitneysai test. Compare rates using the x2 test. A confidence interval of 95% is applied to all tests.

Research Results

Table 1
Average scores of patients in the quality of life areas of the FACT-Hep questionnaire by disease stage

Field	Stage	Stage 1	Stage 2+3+4	p
		(n = 70)	(n = 34)	
		TB ± SD	TB ± SD	
Health status		5,9 ± 0,6	11,2 ± 1,0	<0,05
Communication status with family		12,3 ± 0,6	15,7 ± 0,7	<0,05
Mental status		8,3 ± 0,5	11,7 ± 0,7	<0,05
Functional status		11,2 ± 0,4	12,8 ± 0,5	<0,05
Other interests		16,0 ± 1,2	23,5 ± 1,8	<0,05
CLCS Overall		53,7 ± 20,7	74,8 ± 22,7	<0,05

Comment: The average score of health status is 5.9 ± 0.6 points, communication

status with social family is 12.3 ± 0.6 , mental status is 8.3 ± 0.5 , functional status was 11.2 ± 0.4 , other concerns were 16.0 ± 1.2 and overall quality of life was 53.7 ± 20.7 points. Scores in all areas were lower than those with stage 2 and above.

Table 2
Median scores of the quality of life areas of the patients on the FACT- Hep questionnaire by disease stage

Fields	Disease stage	Median (IQR)			p
		Stage 1 (n=70)	Stage 2,3,4 (n=34)	Total (n=104)	
Health status		3,5 (2-9)	12,5 (4,75-16)	6 (2-13)	<0,05
Communication status with family		11 (9-15,25)	16,5 (12-18)	12 (10-17)	<0,05
Mental status		7 (5-11)	13 (7,75-15)	8 (6-13)	<0,05
Functional status		11 (9-13)	13 (11-13)	12 (10-14)	<0,05
Other interests		11 (8,75-25,25)	26 (13-33)	14 (9-27)	<0,05
CLCS Overall		42 (38-67,25)	83 (56,75-94)	57,5 (39,25-83,5)	<0,05

Comment: The median score of health status is 6 (2-13), communication status with family and society is 12 (10-17), mental status is 8 (6-13), status function is 12 (10-14), other concerns are 14 (9-27) and overall quality of life is 57.5 (39.25-83.5) points.

Table 3
Assessment of the degree of impact on the overall quality of life of patients by areas divided by disease stage FACT-HEP questionnaire

Field/ Disease stage		Not influence		Little influence		Much influence		Very much influence	
		SL	%	SL	%	SL	%	SL	%
Health status	Stage 1 (n=70)	28	40,0	17	24,2	16	22,9	9	12,9
	Stage 2,3,4 (n=34)	5	14,7	4	11,8	10	29,4	15	44,1
	Total (n=104)	33	31,7	21	20,2	26	25,0	24	23,1
Communication status with family	Stage 1 (n=70)	27	38,6	18	25,6	16	22,9	9	12,9
	Stage 2,3,4 (n=34)	5	14,7	5	14,7	14	41,2	10	29,4
	Total (n=104)	32	30,8	23	22,1	30	28,8	19	18,3

Mental status	Stage 1 (n=70)	30	42,9	14	20,0	17	24,2	9	12,9
	Stage 2,3,4 (n=34)	6	17,6	3	8,8	9	26,5	16	47,1
	Total (n=104)	36	34,6	17	16,4	26	25,0	25	24,0
Functional status	Stage 1 (n=70)	30	42,9	16	22,9	16	22,9	8	11,3
	Stage 2,3,4 (n=34)	7	20,6	8	23,5	13	38,3	6	17,6
	Total (n=104)	37	35,6	24	23,1	29	27,8	14	13,5
Other interests	Stage 1 (n=70)	25	35,7	19	27,1	16	22,9	10	14,3
	Stage 2,3,4 (n=34)	7	20,6	2	5,9	10	29,4	15	44,1
	Total (n=104)	32	30,8	21	20,2	26	25,0	25	24,0
CLCS Overall	Stage 1 (n=70)	22	31,4	21	30,0	18	25,7	9	12,9
	Stage 2,3,4 (n=34)	4	11,8	5	14,8	8	23,5	17	50,0
	Total (n=104)	26	25,0	26	25,0	26	25,0	26	25,0

Comment: The quality of life of patients at levels of no effect, little influence, great influence and great influence all accounts for about 25%.

Table 4
Average score, median overall quality of life of patients with FACT-HEP
questionnaire divided by age and underlying medical condition

Information		n	TB ± SD	Median (IQR)
Age group	≤ 60 years	63	60,8 ± 23,9	58 (39-82)
	>60 years	41	60,3 ± 23,1	57 (40-84,5)
	p		>0,05	>0,05
Underlying disease	Yes	57	64,9 ± 24,4	64 (40-89)
	No	47	55,4 ± 21,5	45 (39-75)
	p		<0,05	<0,05
Total		104	60,6 ± 23,5	57,5 (39,25 - 83,5)

Comment: The results of the above table show that the mean score of quality of

life (CLCS) of patients according to the FACT-Hep questionnaire is 60.6 ± 23.5 points, median 57.5 (39.25-83) ,5).

Table 5
Assessment of the impact on the quality of life of patients with the FACT - Hep questionnaire divided by age, underlying medical condition

Level		Age group		p	Underlying diseases		P
		≤ 60 years (n=63)	>60 years (n=41)		Yes (n=57)	No (n=47)	
Not influence	SL	17	9	>0,05	11	15	>0,05
	%	27,0	22,0		19,3	31,9	
Little influence	SL	14	12		12	14	
	%	22,2	29,3		21,1	29,8	
Much influence	SL	17	9		15	11	
	%	27,0	22,0		26,3	23,4	
Very much influence	SL	15	11		19	7	
	%	23,8	26,7		33,3	14,9	

Comment: The level of not affecting the health of the group of patients under 60 years old is 27% higher than the group of patients over 60 years old. The degree of influence is less and greatly affects the quality of life in the group of patients under 60 years old than in the group of patients over 60 years old.

Discussion

For liver cancer, an incurable disease and treatment is mainly to slow disease progression, prolong survival, and maintain the patient's discomfort with symptoms and quality of life. CLCS) is considered an important factor. In this study, we used the FACT-HEP questionnaire, which is a quality-of-life assessment questionnaire specifically for liver cancer. In 2005, Steel and life conducted a study on the value of FACT-Hep in assessing the quality of life of patients with hepatobiliary cancer with a sample size of 158 patients. Health-related quality of life was assessed at baseline (before treatment), 3 months (n=55), and 6 months (n=27) afterward. As a result, the intrinsic stability of all parts of the FACT - Hep scale was sufficient at all time points. FACT - Hep is sensitive enough to detect changes in clinical markers reflecting disease progression as well as response to treatment [4]. When using the FACT-Hep questionnaire, we found that with stage 1 patients, the average score of health status, communication with family, social, mental, functional,... Patients in stage 2, the difference was statistically significant ($p < 0.05$). In addition, the median score for health status is 6 (2-13), social status is 12 (10-17), mental status is 8 (6-13), mental health status is 8 points. function is 12 (10-14), other concerns are 14 (9-27) and overall quality of life is 57.5 (39.25-83.5) points. Statistically significant differences between the two groups of disease stage in all domains in the FACT - Hep questionnaire. When we consider the degree of influence on the patient's overall quality of life, the FACT-HEP questionnaire according to the following areas shows: The patient's quality of life is at levels of no effect, little effect , a lot of influence and a lot of influence all account for 25%. In terms of individual areas such as health status, communication with family and society, mental status, functional status, and

other concerns, the degree of no impact on health fluctuated around the level of health status. is 30%, the degree of influence is less volatile about 20% except for the mental field is 16.4%, the degree of influence is around 25.0%, except for the family communication, social and functional areas is 28.0%, especially in the area of health, mental health and other concerns accounted for 24%. The study results showed that the mean score of quality of life (CLCS) of the patients was 60.6 ± 23.5 points, median 57.5 (39.25-83.5), the level did not affect the patient's health. The health of patients under 60 years old is 27% higher than that of patients over 60 years old. The level of influence is little and greatly affects the quality of life of the group of patients under 60 years old, 22.2% and 23.8% lower than the group of patients over 60 years old, but the difference is not significant. statistics ($p>0.05$). In the group with underlying disease, the overall median quality of life (CLCS) score was 64 (40-89) and a mean score of 64.9 ± 24.4 points, and in the group without underlying disease, the mean and The median score was lower than the group with underlying disease, the difference was statistically significant, $p<0.05$. According to a study by author Cui-Xia Qiao in 2012, the mean FACT-Hep score decreased statistically significantly according to the stage of tumor lymph node metastasis stage 1 to stage 2, stage 3A, stage 3B (687 ± 39.69 vs 547 ± 42.57 vs 387 ± 51.24 vs 177 ± 71.44 , $P = 0.001$). Considering the emotional and physical sections separately, the score also decreases from stage 1 to stage 3B. As for family and social relations, only stage IIIB has a lower score than that of stage I [2]. According to the results of research by Jonathan Klein, baseline FACT-Hep scores are associated with improved survival. The fatality rate reduced by 10 quality-of-life units was 0.90. Tumor size is inversely related to survival [6].

Conclusion

The quality of life of patients at levels of no effect, little influence, much influence and great influence all accounted for 25%. The level of not affecting the health of the group of patients under 60 years old was 27% higher than that of the group of patients over 60 years old. The degree of influence is little and greatly affects the quality of life of the group of patients under 60 years old, 22.2% and 23.8% lower than the group of patients over 60 years old, but the difference is $p>0.05$. People with many and many background diseases accounted for 26.3% and 33.3% higher than those without background diseases, the difference was $p>0.05$.

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