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Does the time since diagnosis affect the quality of life in patients with haematological malignancies at early and late period?

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ABSTRACT

Aims: We aimed to determine the quality of life, social support levels and factors affecting patients who were diagnosed with hematological malignancy and received therapy, regarding the certain time points after diagnosis. Turkish version of the EORTC-QLQ-C30 scale is a tool with valid and reliable indicators in assessing the quality of life of patients with hematological cancer. It makes it essential to support our patients throughout the therapy and even after the end of treatment, both medically and socially with experts in the field.

Methods: Turkish version of the EORTC QLQ-C30 v.3.0 was used to assess QoL measures. A total of 89 patients were included and were grouped according to the demographics, diagnostic sub-groups and time elapsed from diagnosis.

Results: The scales resulted to be similar across gender and diagnostic groups. When the groups were compared, it was found that the scores in the physical function and role function scales were higher and the scores in the fatigue, loss of appetite, constipation, and diarrhoea scales were lower in younger patients. Constipation was higher in the first 6 months, and no significant difference was observed between groups regarding the remaining QoL measures, interestingly this was also available for a comparison between 1 year period and more.

Conclusion: The time from diagnosis had no apperant impact on QoL measures in our patient group. It makes it essential to support our patients throughout the therapy and even after the end of treatment, both medically and socially with experts in the field.

Keywords: Quality of life, malignancy, haematological, time effect

INTRODUCTION

The World Health Organization (WHO) defines the quality of life as "perceiving one's own life in a culture and value system according to one's own goals, expectations, standards and interests". Studies show that having an acute and/or chronic illness can significantly reduce the quality of life.[1] The name of the “cancer” disease, the fear given by the name, anxiety for the future, the stress caused by what may be experienced during the disease process and the undesirable effects related to the treatment significantly affect the quality of life of the patients and their relatives. Despite all these negativities and side effects due to treatment, it is important to improve and maintain the quality of life of patients during and after treatment.[2] People are now concerned not only with the length of life, but also with its quality.

On December 15, 2020, the International Agency for Research on Cancer (IARC), a subsidiary of the WHO, published latest estimates of the global cancer burden, named the World Cancer Statistics. According to the GLOBOCAN 2020 database, which can be accessed online as part of the IARC Global Cancer Observatory, the number of new cancer cases for 2020 in our country was reported as 233.834 and the number of cancer-related deaths was 126.335. Among all malignancies, leukemias were 10th, non-hodgkin lymphomas 11th, myeloma 18th, Hodgkin lymphoma 23rd commonest one. Hematological malignancies negatively affect the quality of life (HRQoL) and well-being of patients, and living with these diseases trigger physical, emotional, cognitive, social functioning, and financial problems.[3-5]

However, few studies, worldwide, have addressed the health-related quality of life (HRQoL) of patients with hematological malignancies.[6] In this study, we aimed to determine the quality of life, social support levels and factors affecting patients who were diagnosed with hematological malignancy and received therapy with time since diagnosis.

METHODS

EORTC QLQ-C30 Quality of Life Version 3.0 Turkish Scale, which was previously validated in Turkish, was used in this current study. Permission to use the scale was obtained from our institution and EORTC, itself. This study was

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performed in line with the principles of the Declaration of Helsinki. Approval has been granted by the İstanbul Medipol University Non-interventional Clinical Researches Ethics Committee (Date: 27.01.2021, Decision No: E-10840098-772.02-2618). Informed consent was obtained from all individual participants included in the study.

A total of 89 hematological cancer patients who were admitted to our hospital between January 2021 and February 2021 were included. The data obtained from the scale were evaluated by demographic characteristics, diagnosis, and time from the diagnosis of the patients.

This prospective study employed a consecutive sampling method to include participants meeting predefined inclusion criteria. A prior power analysis was conducted to ensure adequate statistical power, with the study designed to achieve 80% power to detect clinically relevant differences. Data collection involved standardized, validated instruments administered at multiple time points to assess outcomes longitudinally. All procedures adhered to relevant ethical standards, and rigorous data quality control measures were implemented throughout the study.

Statistical Analysis

The data were evaluated in the SPSS 23.0 package program, and the mean, percentage distributions, correlation, t test, Mann-Whitney U test, Kruskal-Wallis test were used in statistical analysis. In line with the results, the factors affecting the quality of life of the patients were tried to be determined and improvements were made in the necessary care principles.

EORTC QLQ-C30 quality of life scale: The EORTC QLQ-C30 version 3.0 quality of life scale is a globally used scale which was developed by EORTC in cancer patients. In our country, content validity and reliability study were conducted by Beser and Oz,[2] Cronbach alpha coefficient (r) was reported as 0.9014. The scale consists of three sub-dimensions: general health score (general well-being), functional scale and symptom scale, and includes 30 questions for the past week. Functional scale includes physical, role, cognitive, emotional, and social functions. The symptom scale consists of the weakness, pain, nausea-vomiting, dyspnoea, insomnia, loss of appetite, constipation, diarrhoea, and financial difficulties. The first 28 of the 30 items in the scale is a four-point Likert-type scale and the items are scored as none: 1, a little: 2, quite: 3, much: 4. In the 29th question of the scale, the patient is asked to evaluate his health with the scale from 1 to 7 (1: very poor and 7: excellent) and the general quality of life in question 30. The 29th and 30th questions in the scale are questions that form the field of general well-being. Higher functional scale score, general health scale scores and a low symptom scale score indicates a better quality of life.[7] Measurement invariance of the EORTC QLQ-C30 was approved in a large sample of patients with hematological malignancies by Sommer et al,[8] and they also confirmed that this questionnaire is a valid and robust measurement tool in patients with hematological malignancies, also for comparisons across groups and time.

Other study covariates included patient socio-demographic characteristics (gender and age) and clinical history (time since diagnosis and cancer type). We categorized the following variables: patient age (<55 years; ≥55); cancer type (leukemias, lymphomas, plasma cell diseases (PCD), myelodisplastic syndrome/ myeloprolipherative neoplasies (mds/mpn), and others); time from diagnosis (<6 months; ≥6 months, >1years; ≥1years)

RESULTS

Demographic Parameters

A total of 89 patients, 37 (42%) female and 52 (59%) male, were included in the study. Median age was 55 (17- 85) years. The patients were divided into two groups according to their age as over 55 years old (43 patients, 48.3%) and below (46 patients, 51.7%). According to their diagnosis, patients were categorized into 5 different groups as leukemias (25 patients, 28.1%), lymphomas (31 patients, 34.8%), PCD (25 patients, 28.1%), mds/mpn (6 patients, 6.7%) and others (2 patients, 2.2%). Regarding the time difference between the completion of QlQ questionnaire and the time of diagnosis, patients were divided into groups as the ones the difference is less than 6 months or more (46 patients, 51.7% vs. 43 patients, 48.3%), and less than 12 months or more (62 patients, 69.7% vs. 27 patients, 30.3%).

Results of the EORTC QLQ-C30 Quality of Life Scale for Each Group

EORTC QLQ-C30 quality of life scale general health status subscale mean score of the patients was found to be 55.8±27.39. It was determined that the patients got the highest score from the cognitive function (77.52±23.17) and the lowest score from the physical function (59.02±28.61) in the functional scale section. In the symptom scale section, the highest mean score was observed in the fatigue item (50.43±31.11), while the three most common symptoms were determined as fatigue, insomnia, and pain, respectively.

When the averages of the functional status subgroups were evaluated, it was found to be as cognitive function 77.52±23.17, physical function 59.02±28.61, role function 66.29±35.70, social function 60.86±34.55, emotional function 71.44±27.46.

Within the symptom's subgroup, the mean score for economic difficulties was 39.70±36.19, the mean score for fatigue was 50.43±31.11, the average pain score was 36.14±32.58, and insomnia points was 39.70±37.56, the mean constipation score was 24.71±32.77, the mean score of anorexia was 32.95±35.70, the mean score for nausea and vomiting was 15.91±26.34, the average score for respiratory distress was 20.22±29.99, diarrhoea average score was 17.97±28.45 (**Table 1**).

The quality-of-life measures were not statistically different between disease categories (**Table 2**).

The scales were also resulted to be similar across gender groups (**Table 3**).

When the age groups were compared, it was found statistically significant that the scores in the physical function and role function scales were higher and the scores in the fatigue, loss of appetite, constipation and diarrhoea scales were found to be lower in the group under 55 years old (**Table 4**).

Table 1. Evaluation of the quality of life of all patients

Evaluation of the all patients	Mean±SD	Median/IQR
1. General health status	55.80±27.39	58.33/41.67
2. Physical function	59.02±28.61	60/40
3. Role function	66.29±35.70	66.66/66.67
4. Emotional function	71.44±27.46	83.33/37.5
5. Cognitive function	77.52±23.17	83.33/33.33
6. Social function	60.86±34.55	66.66/66.67
7. Fatigue	50.43±31.11	55.55/55.56
8. Nausea-vomiting	15.91±26.34	0/25
9. Pain	36.14±32.58	33.33/66.67
10. Dyspnea	20.22±29.99	0/33.33
11. Insomnia	39.70±37.56	33.33/66.67
12. Loss of appetite	32.95±35.70	33.33/66.67
13. Constipation	24.71±32.77	0/33.33
14. Diarrhea	17.97±28.45	0/33.33
15. Financial problems	39.70±36.19	33.33/66.67

SD: Standard deviation, IQR: Interquartile range

The general health status point average of the group participating in the study was 58.3 (41.67) and the functional status average is 65.16 (2.78±100), symptom status mean was 30.86 (0±80.2).

When we evaluated the results of the survey based on the averages of general health status, functional status, and symptom status, we found that the average of symptom status was low in the group under 55 years of age (p value: 0.003) (Table 5).

When the patients were compared with the time from diagnosis as <6 months and ≥6 months, it was observed that the complaint of constipation was higher in the first 6 months (Table 6). There was not any other dissimilarity. Considering the first 12 months and after, there was no significant difference between the two groups (Table 7).

DISCUSSION

The only goal in cancer treatment is not to eliminate the disease, but to increase the quality of life by reducing post-treatment morbidity. Quality of life includes all situations and factors affecting the individual.

Bikmaz et al,[9] in their study including leukemia patients, found the mean overall health score of EORTC QLQ-C30 as 59.76 at a similarly moderate level. In our study, the general health status point average was 58.3 (IQR; 41.67). The general health status of the patients was found to be moderate. This finding is also aligned with Abdu et al.,[11] who observed similar HRQoL scores in adults with hematological cancers. Fatigue, insomnia, and pain were the most commonly reported symptoms in our cohort, corroborating earlier studies.[3,10,11,15]

The functional health status of the patients was found to be 67.8 (IQR; 32.91), which should be graded as a moderate level also. It was determined that the patients obtained the

Table 2. Effects of disease diagnosis on quality of life

Diagnosis	Leukemias		Lymphomas		PCD		Mds-mpn		Others		p
	Mean±SD	Median/IQR	Mean±SD	Median/IQR	Mean±SD	Median/IQR	Mean±SD	Median/IQR	Mean±SD	Median/IQR	
1. General health status	53±28.96	50/41.67	57.53±26.9	66.67/33.33	57.33±30.08	58.33/41.67	51.39±19.31	50/27.08	58.33±11.79	58.33/-	0.84
2. Physical function	53.6±31.53	53.33/60	69.68±20.86	73.33/26.67	52.27±31.84	53.33/53.33	51.11±24.46	60/36.67	70±42.43	70/-	0.17
3. Role function	62.67±34.79	66.67/66.67	70.97±35.22	100/66.67	64±36.54	66.67/66.67	58.33±46.84	66.67/87.5	91.67±11.79	91.67/-	0.72
4. Emotional function	76.67±26.68	91.67/41.67	68.82±31.91	83.33/41.67	70±26.02	75/33.33	68.44±17.21	70.83/35.42	70.83±5.89	70.83/-	0.58
5. Cognitive function	79.33±24.19	83.33/33.33	78.49±21.6	83.33/33.33	75.33±27.69	83.33/41.67	72.22±8.61	66.67/16.67	83.33±0	83.33/-	0.71
6. Social function	58.67±36.36	66.67/66.67	65.05±34.79	66.67/66.67	56±35.97	66.67/58.33	58.33±22.97	58.33/50	91.67±11.79	91.67/-	0.57
7. Fatigue	53.33±34.25	55.56/61.11	46.59±31.87	44.44/55.56	48.89±29.4	44.44/50	59.26±19.46	61.11/30.56	66.67±47.14	66.67/-	0.78
8. Nausea-vomiting	18.67±29.39	0/33.33	18.28±31.14	0/16.67	9.33±15.28	0/16.67	11.11±17.21	0/33.33	41.67±35.36	41.67/-	0.43
9. Pain	32.67±34.85	16.67/66.67	33.87±33.47	33.33/66.67	36.67±28.46	33.33/33.33	50±33.33	33.33/58.33	66.67±47.14	66.67/-	0.5
10. Dyspnea	26.67±37.27	0/33.33	17.20±28.38	0/33.33	16±25.68	0/33.33	27.78±25.09	33.33/41.67	16.67±23.57	16.67/-	0.67
11. Insomnia	41.33±38.83	33.33/83.33	35.48±38.43	0/66.67	42.67±37.91	33.33/66.67	44.44±40.37	50/75	33.33±0	33.33/-	0.93
12. Loss of appetite	34.64±41.37	33.33/83.33	36.56±34.81	33.33/66.67	25.33±30.85	0/50	33.33±42.16	16.67/75	50±23.57	50/-	0.67
13. Constipation	28±34.26	0/66.67	16.13±32.05	0/33.33	26.67±28.87	33.33/33.33	44.44±40.37	50/75	33.33±47.14	33.33/-	0.19
14. Diarrhea	12±18.95	0/33.33	17.20±30.88	0/33.33	22.67±31.51	0/33.33	33.33±36.51	33.33/50	0±0	0/-	0.32
15. Financial problems	38.67±38.10	33.33/66.67	31.18±35.42	33.33/66.67	52±34.8	33.33/50	27.78±25.09	33.33/41.67	66.67±47.14	66.67/-	0.16

PCD: Plasma cell diseases, Mds/mpn: Myelodisplastic syndrome/myeloprolipherative neoplasies, SD: Standard deviation, IQR: Interquartile range

Table 3. The effect of gender on quality of life

Gender	Female		Male		
	Mean±SD	Median/IQR	Mean±SD	Median/IQR	p
1. General health status	52.70±29.99	58.33 / 33.33	58.01±25.46	58.33/33.33	0.315
2. Physical function	51.71±30.57	60 /53.33	64.23±26.21	66.67/40	0.061
3. Role function	64.41±37.51	66.67/66.67	67.63±34.68	75/62.5	0.725
4. Emotional function	65.09±32.50	83.33/45.83	75.96±22.49	83.33/37.5	0.140
5. Cognitive function	72.52±25.52	83.33/33.33	81.09±20.88	83.33/33.33	0.090
6. Social function	54.50±38.22	66.67/75	65.38±31.28	66.67/66.67	0.212
7. Fatigue	55.56±30.2	55.56/44.44	46.79±31.53	38.89/52.78	0.204
8. Nausea-vomiting	15.77±26.34	0/25	16.03±26.6	0/29.17	0.932
9. Pain	42.79±31.8	50/50	31.41±32.62	16.67/50	0.078
10. Dyspnea	20.72±28.71	0/33.33	19.87±3.14	0/33.33	0.693
11. Insomnia	37.84±34.39	33.33/66.67	41.03±39.94	33.33/66.67	0.849
12. Loss of appetite	32.43±38.08	33.33/66.67	33.33±34.30	33.33/66.67	0.727
13. Constipation	22.52±33.38	0/33.33	26.28±32.56	0/33.33	0.456
14. Diarrhea	23.42±33.21	0/33.33	14.10±24.11	0/33.33	0.211
15. Financial problems	45.05±37.03	33.33/66.67	35.90±35.45	33.33/66.67	0.240

SD: Standard deviation, IQR: Interquartile range

Table 4. The effect of age groups on quality of life

Age	<55 years		≥55 years		
	Mean±SD	Median/IQR	Mean±SD	Median/IQR	p
1. General health status	58.7±27.33	62.5/35.42	52.71±27.44	50/41.67	0.27
2. Physical function	67.97±24.73	73.33/40	49.46±29.64	53.33/53.33	0.003*
3. Role function	73.91±33.27	91.67/50	58.14±36.8	66.67/66.67	0.041*
4. Emotional function	72.28±28.87	83.33/35.42	70.54±26.19	83.33/41.67	0.445
5. Cognitive function	79.71±22.75	83.33/33.33	75.19±23.67	83.33/33.33	0.283
6. Social function	60.51±34.49	66.67/66.67	61.24±35.02	66.67/66.67	0.907
7. Fatigue	41.79±32.13	33.33/44.44	59.69±27.43	66.67/44.44	0.006*
8. Nausea-vomiting	14.86±28.38	0/16.67	17.05±24.26	0/33.33	0.161
9. Pain	34.78±33.49	33.33/66.67	37.6±31.93	33.33/50	0.616
10. Dyspnea	17.39±28.75	0/33.33	23.26±31.32	0/33.33	0.281
11. Insomnia	33.33±34.89	33.33/66.67	46.51±35.74	33.33/33.33	0.061
12. Loss of appetite	22.46±32.24	0/33.33	44.19±36.17	33.33/66.67	0.002*
13. Constipation	14.49±28.68	0/33.33	35.66±33.65	33.33/66.67	0.001*
14. Diarrhea	10.87±23.36	0/8.33	25.58±31.57	33.33/33.33	0.007*
15. Financial problems	41.3±38.61	33.33/66.67	37.98±33.79	33.33/66.67	0.784

SD: Standard deviation, IQR: Interquartile range, * p<0.05

highest score from "cognitive function" and the lowest score from "physical function" on functional scales. In symptom scales, the highest mean score was seen in "fatigue item", while the three most common symptoms were "fatigue", "insomnia" and "pain", respectively. It is desirable for the patients to have high scores in cognitive and emotional function, and this is thought to support the patient positively. According to the responses obtained from the questionnaire, the lower occupational functions of the patients can be due to the inability to spare time for efforts and disease-related treatment processes. In addition, it can be said that feeling weak and tired due to the side effects of the disease and treatment negatively affects their occupational functions.[3] Experiencing more intense symptoms of fatigue, anorexia and insomnia are usually related to nausea and vomiting, changes in blood values and disease process due to the disease and treatment.[9,10] Inability to fully cover the expenses of intensive treatment by their social insurance or the long bureaucratic processes (preparation of drug reports, etc.), and the decrease in their income levels because of the vacancy on work during the treatment and follow-up period may lead to financial difficulties.[3]

No statistically significant differences in quality of life were observed across diagnostic subgroups, supporting Efficace et al.[6] and Immanuel,[12] who concluded that the type of

Table 5. Comparisons of all groups' scales

		General health status			Functional status			Symptom status		
		Mean±SD	Median/ IQR	p	Mean±SD	Median/ IQR	p	Mean±SD	Median/ IQR	p
Gender	Female	52.7±29.99	58.33/33.34	0.315	60.16±22.82	61.39/31.94	0.080	32.90±18.45	32.72/19.14	0.358
	Male	58.01±25.46	58.33/33.33		68.72±18.87	73.75/25.69		29.42±20.49	28.09/28.09	
Age groups	<55 years	58.70±27.33	62.50/33.33	0.270	68.85±20.26	74.03/25	0.104	25.70±20.08	26.85/27.78	0.003
	≥55 years	52.71±27.44	50/41.67		61.21±21.12	61.39/31.39		36.39±17.76	37.04/33.33	
Diagnosis	Leukemias	53±28.96	50/41.67	0.843	63.99±21.01	67.22/28.06	0.617	31.78±23.91	30.25/35.19	0.696
	Lymphomas	57.53±26.90	66.67/33.33		68.42±19.14	73.61/27.5		28.06±18.94	28.40/29.63	
	PCD	57.33±30.80	58.33/25		62.49±25.21	64.72/42.78		31.14±16.14	32.72/24.69	
	Mds-mpn	51.39±19.31	50/16.66		60.14±11.30	61.94/15.84		36.83±17.75	39.20/29.01	
	Others	58.33±11.79	58.33/16.67		77.64±4.12	77.64/5.84		41.67±30.12	41.67/42.59	
Time from diagnosis	<6 months	58.51±21.19	58.33/16.67	0.404	65.34±19.13	67.22/31.95	0.987	32.02±20.18	32.72/27.78	0.605
	≥6 months	52.91±32.78	50/50		64.96±22.90	68.06/38.33		29.63±19.20	28.40/29.01	
Time from diagnosis	<1 years	57.26±25.41	58.33/33.33	0.501	65.80±20.13	67.50/32.78	0.708	31.29±20.36	32.41/29.63	0.775
	≥1 years	52.47±31.76	50/50		63.69±22.95	68.06/32.23		29.88±18.18	27.78/30.25	

SD: Standard deviation, IQR: Interquartile range, PCD: Plasma cell diseases, Mds/mpn: Myelodisplastic syndrome/myeloprolipherative neoplasies

Table 6. The effect of time from diagnosis (<6 months/≥6 months) on quality of life

Time from diagnosis	<6 months		≥6 months		
	Mean±SD	Median/IQR	Mean±SD	Median/IQR	p
1. General health status	58.51±21.19	58.33/20.83	52.91±32.78	50/50	0.404
2. Physical function	57.83±28.08	60/46.67	60.31±29.46	66.67/33.33	0.604
3. Role function	65.94±36.84	83.33/66.67	66.67±34.88	66.67/50	0.928
4. Emotional function	68.48±27.10	75/41.67	74.61±27.81	83.33/25	0.194
5. Cognitive function	78.26±21.33	83.33/33.33	76.74±25.23	83.33/33.33	0.997
6. Social function	63.04±34.05	66.67/66.67	58.53±35.33	66.67/66.67	0.547
7. Fatigue	54.11±32.34	55.56/58.33	46.51±29.62	44.44/44.44	0.279
8. Nausea-vomiting	18.48±26.11	0/33.33	13.18±26.62	0/16.67	0.178
9. Pain	3804±32.14	33.33/66.67	34.11±33.32	33.33/50	0.522
10. Dyspnea	19.57±28.61	0/33.33	20.93±31.73	0/33.33	0.985
11. Insomnia	36.96±37.99	33.33/66.67	42.64±37.32	33.33/66.67	0.446
12. Loss of appetite	32.61±37.51	33.33/66.67	33.33±34.12	33.33/66.67	0.747
13. Constipation	31.88±36.49	33.33/66.67	17.05±26.60	0/33.33	0.049*
14. Diarrhea	14.49±22.94	0/33.33	21.71±33.24	0/33.33	0.477
15. Financial problems	42.03±36.13	33.33/66.67	37.21±36.52	33.33/66.67	0.497

SD: Standard deviation, IQR: Interquartile range, * p<0.05

hematological malignancy is not a major determinant of long-term QoL outcomes.

Younger patients (<55 years) demonstrated significantly better physical and role functioning scores and a lower symptom burden, including fatigue, appetite loss, constipation, and diarrhea. These results align with Immanuel et al.,[12] who found better HRQoL in younger hematologic cancer patients, attributed to greater resilience and fewer comorbidities. This is further supported by the work of Macía et al.[13] and Caldiroli et al.[14] who highlight resilience and coping as key mediators of quality of life in cancer patients.

Although gender differences were not statistically significant, men tended to report slightly better physical functioning scores (p=0.06), a trend also noted in recent studies emphasizing the potential impact of physical capacity and social roles on perceived QoL.[11,15]

Regarding time since diagnosis, most QoL parameters did not show significant variation, except for constipation, which was more prevalent during the early months. This contrasts with longitudinal findings by Ehooman et al.,[15] who reported dynamic HRQoL changes over long-term follow-up in hematologic cancer survivors. The discrepancy may be due to the cross-sectional design and shorter follow-up in our study.

Recent evidence, including Abdu et al.[11] and Caldiroli et al.[14] underscores the importance of resilience as a mediator of quality of life and the need for structured survivorship care to address delayed psychosocial and functional impairments in hematologic cancer survivors.

Table 7. The effect of time from diagnosis (<1 year/≥1 year) on quality of life

Time from diagnosis	<1 year		≥1 year		
	Mean±SD	Median/IQR	Mean±SD	Median/IQR	p
1. General health status	57.26±25.41	58.33/33.33	52.47±31.76	50/50	0.501
2. Physical function	59.03±27.66	60/40	59.01±31.25	66.67/40	0.823
3. Role function	65.59±36.45	75/66.67	67.90±34.57	66.67/50	0.834
4. Emotional function	70.70±27.28	79.17/41.67	73.15±28.34	83.33/25	0.655
5. Cognitive function	79.30±22.11	83.33/33.33	73.46±25.43	83.33/33.33	0.278
6. Social function	62.90±34.33	66.67/66.67	56.17±35.25	66.67/50	0.373
7. Fatigue	52.33±31.9	55.56/55.56	46.09±29.35	44.44/44.44	0.391
8. Nausea-vomiting	18.28±27.78	0/33.33	10.49±22.24	0/16.67	0.124
9. Pain	36.29±31.58	33.33/66.67	35.80±35.42	33.33/66.67	0.827
10. Dyspnea	22.04±30.14	0/33.33	16.05±29.77	0/33.33	0.223
11. Insomnia	36.56±37.55	33.33/66.67	46.91±37.28	33.33/66.67	0.204
12. Loss of appetite	33.33±36.71	33.33/66.67	32.10±33.95	33.33/66.67	0.992
13. Constipation	27.42±33.89	0/41.67	18.52±29.72	0/33.33	0.211
14. Diarrhea	18.28±28.10	0/33.33	17.28±29.77	0/33.33	0.707
15. Financial problems	37.10±35.76	33.33/66.67	45.68±37.15	0/66.67	0.302

SD: Standard deviation, IQR: Interquartile range

Overall, our findings indicate that age and resilience are more consistent predictors of quality of life than disease subtype or time elapsed since diagnosis, at least within the first year post-diagnosis.

Strengths of our study should be listed as including a wide variety of subtypes of malignancies, comparison among time from diagnosis, a single institution design, a seemingly population having a comparable socio-economic and socio-cultural status and use of a valid and robust measurement tool which allows for comparisons across groups and time in patients with hematological malignancies.

Limitations

One of the most important limitations of the study is the small sample size and the other is a lack of disease specific questionnaires which was not a valid concern of this study according to purposes and aims.

CONCLUSION

In this study, the mean score of general health status (55.80±27.39), one of the subdimensions of the QoL scale, was found to be moderate. The most common symptoms experienced by patients were fatigue, insomnia, and pain. These symptoms negatively impacted their quality of life.

The Turkish version of the EORTC QLQ-C30 Scale proved to be a valid and reliable tool for evaluating the quality of life in patients with hematological malignancies.

Importantly, our findings indicate that the time from diagnosis had no apparent impact on most QoL dimensions, but younger age was associated with significantly better functional status and fewer symptoms.

It is therefore essential to support patients not only during therapy but also after the end of treatment, both medically and socially, with a multidisciplinary and individualized approach.

We will aim to establish an interdisciplinary survivorship support group to address the long-term needs of patients with hematologic cancers.

ETHICAL DECLARATIONS

Ethics Committee Approval

Approval has been granted by the İstanbul Medipol University Non-interventional Clinical Researches Ethics Committee (Date: 27.01.2021, Decision No: E-10840098-772.02-2618).

Informed Consent

All patients signed and free and informed consent form.

Referee Evaluation Process

Externally peer-reviewed.

Conflict of Interest Statement

The authors have no conflicts of interest to declare.

Financial Disclosure

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Author Contributions

All of the authors declare that they have all participated in the design, execution, and analysis of the paper, and that they have approved the final version.

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