RESEARCH COMMUNICATION

Quality of Life of Women Undergoing Chemotherapy for a Gynaecological Oncological Disease in Turkey

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Abstract

Aim: Studies have shown effects of surgery, radiation and chemotherapy on quality of life in cases of gynaecological cancer. Very few studies are available examining the quality of life of individuals in Turkey who have been diagnosed with gynaecological cancer and undergoing treatment. Method: This study was performed to evaluate the quality of life of such patients using the EORTC-QLQ-C30 Quality of Life Index. Chi-square Yates, Mann-Whitney-U tests and variance analysis used for statistical analizing. Results: The EORTC-QLQ-C30 Quality of Life Index mean points for "general well-being and quality of life" of the patients were found to be 60.5±25.0. In the sub-groups of the Quality of Life Index determined fatigue (60.1±24.8), economic difficulties (46.9±33.3), pain and loss of appetite (42.9±27.8; 42.9±34.0) and insomnia (40.1±34.0) were the symptoms most reported to have a negative effect on quality of life. Statistical significance was noted for marital status and income status ($p<0.05$) but not educational level. Conclusion:Determination of quality of life of women with a diagnosis of gynaecological oncological disease who are undergoing chemotherapy enables provision of a more comprehensive and higher quality of care.

Keywords: Quality of life - gynaecological cancer - adverse effects of therapy - Turkey

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Introduction

Quality of life is a multi-dimensional concept which defines physical, mental and social well-being. The physical dimension includes daily life activities and symptoms arising from the disease and the treatment (Caplan, 1987). Cancer patients experience problems such as dyspnea, coughing, hemoptysis, pain, lethargy, fatigue, insomnia, loss of appetite, nausea, vomiting, diarrhea, constipation, weight loss, changes in urinary habits, anxiety, fear, depression, changes in body image, and impaired family and social relationships, all of which have a negative impact on quality of life (Greenlee et al., 2000, Chan et al., 2001, Jemal et al., 2003). In literature there has been an increase in studies directed towards problems affecting quality of life for cancer patients (Schipper et al., 1984; Cella & Tulsky, 1990; Costantini et al., 2000; Chan et al., 2001). Studies have shown the effects of surgery, radiation and chemotherapy on quality of life in cases of gynaecological cancer (Portenoy et al., 1994; Kornblith et al., 1995; Thaler et al., 2000; McQuellon et al., 2001; Özaras & Özyurda, 2010). The perception of quality of life changes according to social environment and differences in country's cultures. It is important to asses gynecologic cancer cases in a Turkish population and compare the results with literature. Very few studies are available examining the quality of life of individuals in Turkey who have been diagnosed with gynaecological cancer and have undergone treatment (Reis et al., 2006; Pınar et al., 2008; Özaras & Özyurda, 2010; Reis et al., 2010; Goker et al., 2011). By evaluating topics such as family and social relationships, daily life activities, perceptions of health and expectations of individuals undergoing chemotherapy for gynaecological disease, what is felt to be necessary physically, psychologically and socially is revealed and thus quality of life can be improved.

This study was planned to evaluate the quality of life of patients undergoing chemotherapy due to a diagnosis of gynaecological oncological disease.

Materials and Methods

Study General Details

The study was carried out at the chemotherapy unit of Baskent University Ankara Hospital Gynaecologyc Oncology Service. The study included 49 women undergoing treatment at the chemotherapy unit of Baskent University Ankara Hospital Gynaecologyc Oncology Service between 10 June and 20 August 2010. The research was performed as descriptive and cross-sectional.

Data Collection

To collect data related to socio-demographic characteristics, a questionnaire developed by the researcher and the EORTC-QLQ-C30 Quality of Life Index, a measurement developed by EORTC and the

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Table 1. Some Characteristics

	N	%
1.a. Sociocultural characteristics:	n: 49	
Education Level:		
Illiterate	2	4,1
Literate	2	4,1
Primary school	15	30,6
Secondary school	7	14,3
High school	14	28,6
University	8	16,3
Work status:		
Working	8	17,3
Doesn't working	41	83,7
Marital status:		
Married	34	69,4
Single	2	4,1
Widow/ divorced	13	26,5
Income status:		
Income more than expense	5	10,2
Income equal to expense	32	65,3
Income less expense	12	24,5
1.b. Stage of Disease (FIGO) :		
Stage I	1	2,0
Stage II	3	6,1
Stage III	2	4,1
Stage IV	2	4,1
Unstageable	41	83,7
1.c. Life changes with chemotherapy:		
Yes	36	73,4
No	13	26,5
Changes:	n: 36	
Deterioration in social activities	20	55,5
Too much rest due to exhaustion	4	11,2
Be retired	3	8,3
To live in fear	3	8,3
Changes in metabolism	2	5,5
Fail to comfortable household task	1	2,8
Living away from home for cure	1	2,8
To need much more space	1	2,8
Receive psychological support	1	2,8

content validity and reliability verified by Beşer and Öz (Cronbach alpha coefficient r=0.9014), was used. The EORTC-QLQ-C30 Quality of Life Index includes 30 questions under 3 headings of general state of well-being, functional difficulties and symptom control. The first 28 of the 30 items are evaluated by a four-point Likert-type scale of 1:none, 2: mild, 3: substantial, 4: severe. The 29th question is answered on a scale of 1 to 7 (1: very bad, 7: excellent) and the 30th question requires an evaluation of general quality of life

High points obtained in this section express a high quality of life and low points a low quality of life. While high values indicate well-being for functional status, high values in the symptom sub-group show an excess of symptoms or problems. Even if low points are obtained in the functional and symptom sections and quality of life points are high, the quality of life is indicated as low.

Data Evaluation

The data obtained were evaluated by SPSS (Statistical Package for Social Sciences) for Windows 11.0 packet program. In the data evaluation using Chi-square test and Fisher exact chi-square test, in the case of any frequency observed < 25 from a four-way observation, the Yates test and Mann-Whitney-U test and chi-square significance test were used in the comparison of quality of life variance analysis with socio-demographic variables.

Table 2. Last Two Weeks Symptoms and Frequencies

Syptom/ Frequency*	Little	N %	Moderate	N %	Much	N %
Fatigue/ weakness	14	28,6	21	42,9	13	26,5
Pain	18	36,7	8	16,3	10	20,4
Nausea, vomiting	14	28,6	13	26,5	6	12,2
Color changes of the nails and fingers	1	2,0	1	2,0	1	2,0
Change in taste	1	2,0	-	-	2	4,1
Change in the oral mucosa	1	2,0	2	4,1	1	2,0
Blurred vision	-	-	2	4,1	-	-
Sleeplessness	-	-	1	2,0	-	-
Headache	1	2,0	-	-	1	2,0
Loss of sensation	-	-	1	2,0	-	-
Anorexia	2	4,1	4	8,2	4	8,2
Itching	-	-	1	2,0	-	-
Heatburn	1	2,0	-	-	-	-
Loss of power in the extremities	-	-	5	10,2	2	4,1
Hair loss	1	2,0	2	4,1	2	4,1

*Given more than one answer

Research Ethics

Permission for the research was granted by Baskent University Medical and Health Sciences Research Committee. Informed consent was obtained from all the women included in the study.

Results

The mean age of the women in the study was 54.3 years (range 29-85 years). The education level of the women undergoing chemotherapy was 30.6% having completed primary school and 65.3% were defined as having income equal to outgoings (Table 1.a.). The mean time since diagnosis was 2 years, 67.3% had a diagnosis of ovarian cancer and 24.5% were receiving reatment of taxol + carboplatin. 20.4% were on the 3rd regimen of chemotherapy and 16.3% on the 6th. The diseaase stages according to the FIGO (International Federation of Gynaecology and Obstetrics) classification are shown in Table 1.b.

Following chemotherapy, 73.4% of the women had to make changes to their lives with the most reported change (55.5%) being a reduction in social life (Table 1.c.). All of the women experienced fatigue with 42.9% reporting it at a moderate level (Table 2). Other symptoms experienced were pain ((36.7%) and nausea (28.6%) at a little level, moderate or severe loss of appetite (8.2%), and loss of power in the extremities (10.2%) at moderate level. To relieve symptoms, patients mostly used prescribed medication and to try and cope with the symptoms they also paid attention to nutrition (28.6%) and rest (22.4%).

The effects of symptoms associated with chemotherapy

Table 3. Effect of Daily Life Activities of Symptoms

Syptom	N	%
Standing comfortably		63,3
Speaking		91,8
Eating		83,7
Doing household tasks		81,6
Reading and writing		77,6
Lifting more than 5 kg.		73,5
Walking slow		71,4
Wearing and undressing		71,4
Stair-climbing		69,4
Standing comfortably		63,3
Bathing		63,3
Descending stairs		55,1
Using the toilet		3,7

Table 4. EORTC-QLQ-C30 Quality of Life Index General and Subscales Points

	Items	Mean ± SD
Quality of Life Subscales Points:		
General well-being & quality of health	29, 30	60,54 ± 24,98
Functional Status:		
Physical functions	1, 2, 3, 4, 5	54,15 ± 27.51
Role functions	6, 7	61.56 ± 33.19
Emotional functions	21,22, 23	62.59 ± 27.01
Cognitive functions	20, 25	72.10 ± 22.66
Social functions	26, 27	72.11 ± 22.67
Symptoms:		
Fatigue	10, 12, 18	60.09 ± 24.83
Nausea and vomiting	4, 15	26,19 ± 26,57
Pain	9, 19	42,85 ± 27,84
Difficulty in breating	8	16,32 ± 25,56
Sleeplessness	11	40,14 ± 34,01
Anorexia	13	42,86 ± 34,02
Constipation	16	27,21 ± 34,47
Diarrhea	17	26,44 ± 00,00
Economic difficulties	28	46.93 ± 33.27

on daily life activities are shown in Table 3. The most frequently reported effects were 91.8% speech difficulties, 83.7% eating problems and 81.6% inability to perform housework. Although not shown in the Table, the level of social support factors together with chemotherapy were listed as a good level of support from children (77%), spouse (73.5%), friends (63.3%), relatives (55.1%) and neighbours (53.1%).

The EORTC-QLQ-C30 Quality of Life Index mean points for "general well-being and quality of life" of the patients were found to be 60.54±24.98. Within functional status, a deterioration was determined in the areas of physical (54.15±27.51), emotional (62.59±27.01), role (61.56±33.19) social (72.11±22.67) and cognitive (72.10±22.66). In the sub-group of symptoms of the Quality of Life Index, fatigue (60.09±24.83), economic difficulties (46.93±33.27), pain and loss of appetite (42.85±27.84; 42.86±34.02) and sleeplessness (40.14±34.01) were the symptoms most reported to have a negative effect on quality of life (Table 4).

Examination of the distribution of mean points in the sub-groups of the Quality of Life Index determined no statistical significance related to educational level. When marital status was examined, the mean physical function points of widowed/divorced/separated patients (36.41± 31.11 $p<0.05$) were determined as low compared to those of married and single patients. The mean economic difficulties points of the group with income lower than outgoings (20.00 ± 44.72 $p<0.05$) were determined as low compared to the other groups.

Discussion

The results obtained showed that according to the mean points of the EORTC-QLQ-C30 Quality of Life Index (60.54±24.98), the most frequent symptoms experienced by the patients were fatigue/lathergy, nausea, vomiting and pain, and due to the disease and the treatment applied, difficulties were experienced in performing some daily life activities (housework, climbing stairs etc).

In a study by Pinar et al. (2008) of gynaecological cancer patients with a mean duration since diagnosis of 36 months, using the same measurements, the mean points of the EORTC-QLQ-C30 Quality of Life Index were found to be 51.54±22.20. The higher quality of life points obtained in the current study may be due to the study group consisting of individuals with a mean duration of treatment of 2 years. In a study by Reis et al. (2010) of gynaecological cancer patients diagnosed at mean 29 months previously, using the Quality of Life-Cancer Survivors (QOL-CS) measurement, general quality of life was found to be moderately low. Similarly, Reis N (2001) reported quality of life to be moderately poor at the level X=4.83±1.09 using the Quality of Life Scale/ Cancer Patient measurement to examine the quality of life of individuals with gynaecological cancer. In the other study from Turkey (Goker et al., 2011) used same scale, mean of global health QoL score was determined as 59.4±24.2. When the subdimensions of the functional status scale were evaluated, the mean of cognitive score (81.6±23.1) was found higher than other dimensions. In contrast, Le et al. (2004) obtained findings of increased quality of life with chemotherapy in individuals with ovarian cancer and recommended randomised controlled studies to clarify these findings.

Recovery from treatment for gynecological cancer has a positive effect upon QoL. Tahmasebi et al. (2007) stated that social, emotional and functional well-being was significantly better after treatment. According Goker et al. (2011) recovery after surgery was more rapid while the effect of chemoradiotherapy persisted; thus this might explain their effect on the patients QoL.

In the Goker et al. (2011) subdimensions of the functional status scale were evaluated, the mean of cognitive score was found higher and emotional score was found the lowest in women with gynecological cancer. Similarly, Pınar et al.'s 2008) study, which evaluated QoL of women using EORTC QLQ-C30 scale, stated that emotional (49.55±32.42) aspects of QoL were mostly affected among the functional parameters and cognitive function (66.33±27.45) was found higher.

In the physical area, the most difficulty was reported in managing housework (81.6%) and during chemotherapy it was seen to be necessary to share the responsibility for

housework attributed to women. This result is thought to be supported by the finding that the physical area mean points of the married patients were higher than those of widowed/divorced/separated patients, who take on the responsibility for the household alone. Reis et al. (2010) determined that gender role was an important area affecting individuals with gynaecological cancer. Goker et al. (2011) also found that role function score was lower in single women than married women but emotional and social score higher in single women.

The second area where problems were most frequently experienced after the physical area was the emotional area, which conformed with literature (Chan et al., 2001; Reis et al., 2006, 2010). A longitudinal study by Chan et al determined that psychosocial support for women with gynaecological cancer has the effect of improving quality of life. It is important that nurses and other healthcare personnel direct women undergoing chemotherapy and at that stage of the disease towards available support services. However, it is noticeable that only 1 woman in the study took psychological support. It is thought that the necessity for psychosocial support is tried to be met by the family from the finding that a high percentage of the women in this study received support from their spouse and children and expressed the quality of the support as 'good'. Similarly, Pinar et al. (2008) determined that spouse and children were the primary source of support. In a study by Reis et al. (2010) parental, familial, and friends' support was at quite a high level as these are characteristics of Turkish social life, thus making an immense contribution to the improvement of social well-being.

In our study, the mean physical function points of widowed/divorced/separated patients were determined as low compared to those of married and single patients. In contrast Goker et al. (2011) found that patients, who are living alone or have low social activity in the first place obtain higher scores.

Pinar et al. (2008) determined that young, married working women with a high level of education had a higher quality of life, whereas those undergoing chemotherapy and radiotherapy, those with additional health problems and those with insufficient information about the diseases had low general well-being and quality of life. In the current study, as no relationship was found between level of education and quality of life, a similarity is shown with the findings of Reis et al. (2006).

In conclusion, quality of life is a significant measurement in the evaluation of health status and the effficacy of treatment. It is thought that the determination of quality of life of women with a diagnosis of gynaecological oncological disease who are undergoing chemotherapy enables the provision of a more comprehensive and higher quality of care for the patients.

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