

Comparison of the Patients with early and Advanced Stage Ovarian Cancer with respect to quality of life and Body Mass Index

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ABSTRACT

Objective: The aim of this study was to compare of Quality of Life (QoL) outcomes in women underwent surgery and chemotherapy for early and advanced stage ovarian cancer.

Methods: A cross-sectional study was performed in 47 treated epithelial ovarian cancer patients between 2012 and 2018 at the Antalya Training and Research Hospital. To assess QoL we used the European Organization for Research and Treatment of Cancer (EORTC) QLQ-OV28 standardized questionnaire.

Results: In total, 60 epithelial ovarian cancer patients were invited to participate, of which 47 women (78.3%) responded. Twenty-six patients were advanced stage and 21 patients were early stage. There was no statistically significant difference between the two groups with regard to all patient characteristics; age (56.5 ± 8.7 and 58.3 ± 9.1 years, $p=0.232$), body mass index (32.3 ± 6.6 vs 33.1 ± 5.7 kg/m², $p=0.341$), menopausal status (%71.4 vs %76.9, $p=0.435$) and histological types (%80.9 vs %84.6, $p=0.367$). There was no significant with respect to differences between the groups for the EORTC QLQ-OV28 scales; gastrointestinal symptoms, peripheral neuropathy, other chemotherapy side effects, menopause-related symptoms, body image, attitude to disease and treatment, and sexual functioning.

Conclusion: Regardless of staging, epithelial ovarian cancer patients experience similarly overall positive QoL. Fear of recurrence and sexual problems are important for some patients. It should be noted that health is not just the absence of a disease, but comprises the presence of complete physical, psychological and social well-being.

Keywords: Ovarian cancer, body mass index, menopausal status, quality of life

INTRODUCTION

Approximately 225,000 new cases of ovarian cancer are diagnosed world wide each year (1). The standard approach in the treatment of ovarian cancer patients is surgery followed by platinum and taxane based chemotherapy (CT) (2). There are differences in survival between early stage (FIGO I and II) and advanced stage (III and IV) epithelial ovarian cancer (EOC), and the 5-year survival rate for women with early stage disease is around 70%, while for advanced stage patients it is around 10-15% (3).

Quality of life (QoL) and well-being are affected by different social, physical, spiritual

and mental factors. Immediately after diagnosis of cancer, most patients focus on anticancer treatment and its challenges (4). In this situation the primary objective of treatment is to cure the disease and secondary to maintain the best possible QoL. Patients have achieved long-term survival rates and life expectancy after treatment for ovarian cancer thanks to technical and pharmacological progress, and therefore has been focused on QoL (5). One of the factors that adversely affects QoL after ovarian cancer treatment is the loss of ovarian function and hormonal disorders caused by chemotherapy or salpingo-oophorectomy. In addition, a wide skin incision in the surgery of patients with early or

Comparison of the Patients with early and Advanced Stage Ovarian Cancer with respect to quality of life and Body Mass Index

advanced ovarian cancer causes changes in body image and changes in self-perception. Unfortunately, due to high recurrence rates and development of chemo-resistance, most patients have to be treated for the rest of their lives (6,7). In terms of prognosis and survival, fear of recurrence may have an impact on quality of life and emotional state of survivors. Therefore, advanced stage survivors may have a worse QoL than early stage survivors because of fear of recurrence.

The aim of this study was to compare of QoL outcomes in women underwent surgery and chemotherapy for early and advanced stage ovarian cancer.

MATERIAL AND METHODS

A cross-sectional study was performed in 47 treated epithelial ovarian cancer patients between 2012 and 2018 at the Antalya Training and Research Hospital. To assess QoL we used the European Organization for Research and Treatment of Cancer (EORTC) QLQ-OV28 standardized questionnaire. Patients were contacted by phone or during routine clinic visits and asked whether they were interested in participating. The included patients were informed about the aims of the study and written informed consent was obtained. A total of 30 early stage patients were asked to participate. Twenty-one subjects agreed to participate. A total of 30 advanced stage survivors were interviewed and twenty-six subjects agreed to participate. Patients with epithelial ovarian cancer between 18 and 70 years of age who had received the last chemotherapy at least 6 months ago and sexually active were included. Exclusion criteria were: concurrent malignancies, inability to understand and

Table 1. Demographic characteristics of patients

	Early Stage (n: 21)	Advanced Stage (n: 26)	p
Age (years)	56.5±8.7	58.3±9.1	0.232
BMI (kg/m ²)	32.3±6.6	33.1±5.7	0.341
Menopausal status, n (%)	15 (71.4)	20 (76.9)	0.435
Histological types, n (%)			
Serous	17 (80.9)	22 (84.6)	0.367
Others	4 (19.1)	4 (15.4)	

BMI: body mass index,

There was no significant with respect to differences between the groups for the EORTC QLQ-OV28 scales; gastrointestinal symptoms (32.4±21.3 vs 27.6±14.3, p=0.226), peripheral neuropathy (21.3±22.6 vs 27.3±25.1, p=0.625), other chemotherapy side effects (34.9±15.7 vs

complete the questionnaire. All patients were under surveillance after primary treatment without evidence of disease.

The EORTC QLQ-OV28 module includes seven multi-item scales (gastrointestinal symptoms, peripheral neuropathy, other chemotherapy side effects, menopausal symptoms, body image, attitude towards disease and treatment, and sexual functionality) consisting of twenty-eight questions. We linearly transformed the EORTC QLQ-OV28 data to yield scores from 0 to 100; higher scores are equivalent to worse or more symptoms except for sexual function items where higher scores indicate better QoL. Patients were stratified into two groups and compared as follows: early stage versus advanced stage.

Statistical analysis of variance with post hoc test and Fisher's exact test was employed to compare groups. A p value <0.05 was considered statistically significant.

RESULTS

In total, 60 epithelial ovarian cancer patients were invited to participate, of which 47 women (78.3%) responded. Twenty-six patients were advanced stage and 21 patients were early stage.

The mean age of patients with early and advanced stage group were 56.5±8.7 and 58.3±9.1 years, respectively (p=0.232). There was no statistically significant difference between the two groups with regard to all other patient characteristics; body mass index (32.3±6.6 vs 33.1±5.7, p=0.341), menopausal status (%71.4 vs %76.9, p=0.435) and histological types (%80.9 vs %84.6, p=0.367) (Table 1).

37.3±12.4, p=0.542), menopause-related symptoms (38.2±28.6 vs 39.1±28.3, p=0.763), body image (44.3±21.1 vs 45.2±19.2, p=0.342), attitude to disease and treatment (80.7±24.5 vs 81.2±19.1, p=0.875) and sexual functioning (39.5±14.2 vs 41.1±14.8, p=0.789) (Table 2).

Comparison of the Patients with early and Advanced Stage Ovarian Cancer with respect to quality of life and Body Mass Index

Table 2. Comparison of scales from EORTC QLQ-OV28 between patients with early and advanced ovarian cancer

	Early Stage	Advanced Stage	p
Gastrointestinal symptoms	32.4±21.3	27.6±14.3	0.226
Peripheral neuropathy	21.3±22.6	27.3±25.1	0.625
Other chemotherapy sideeffects	34.9±15.7	37.3±12.4	0.542
Menopause-related symptoms	38.2±28.6	39.1±28.3	0.763
Body image	44.3±21.1	45.2±19.2	0.342
Attitude to disease and treatment	80.7±24.5	81.2±19.1	0.875
Sexual function	39.5±14.2	41.1±14.8	0.789

DISCUSSION

The aim of new approaches in the treatment of ovarian cancer is to improve the quality of life as well as survival. QoL have to be considered in the whole assessment of the therapeutic plan in patients with ovarian cancer (4). A good QoL is necessary for psychological well-being in EOC patients. Particularly, immediately after the diagnosis patients should receive suitable counselling concerning these delicate fields. Multidisciplinary approach is significant for the management of the disease. In some cases, psychological support might be required. Indeed, it should be focused to provide QoL for cancer patients as similar as possible to the QoL of healthy women (5).

A previous study showed that there was worse QoL during CT treatment after the cytoreductive surgery. The same study also determined that the QoL get better after the end of CT (8). Greimel et al. demonstrated that EOC patients without recurrence after 10 years of follow-up reached QoL scores similar to the healthy population (9).

Mirabeau et al demonstrated that both early and advanced ovarian cancer patients experienced similar positive long-term regulation without significant differences in psychological status or general QoL. Many survivors indicated good emotional status (71% early and 64% advanced). Additionally, sexual problems were consistently a concern and significantly correlated to worse body image for all patients with ovarian cancer. However, given the frequency of reported dysfunction, all patients may benefit from resources and counseling focusing on sexual functioning (3).

Gastrointestinal symptoms, peripheral neuropathy, and other side effects of chemotherapy are more common in the early terms of chemotherapy, but it decreases after end of CT. In previous studies, there was no difference between the side effects of chemotherapy in patients with early and

advanced stage ovarian cancer (10,11). In the current study, no difference was found between two groups for these scales.

All cancer patients are concerned about sexual problems. In previous studies, it has been shown that sexual functions are reduced in cancer patients (12, 13). Sexual desire may be reduced by physical difficulties of surgery, decreased hormone levels, potential autonomic neuropathy due to chemotherapy, and psychological factors (fear of relapse and body image). In our study, sexual dysfunction was high in both groups but there was no statistically significant difference between the groups.

In conclusion, regardless of staging, epithelial ovarian cancer patients experience similarly overall positive QoL. Fear of recurrence and sexual problems are important for some patients. It should be noted that health is not just the absence of a disease, but comprises the presence of complete physical, psychological and social well-being.

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Comparison of the Patients with early and Advanced Stage Ovarian Cancer with respect to quality of life and Body Mass Index

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