

Menopausal Symptoms and Quality of Life in Breast Cancer Patients undergoing Chemotherapy-induced Menopause

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PURPOSE

Chemotherapy independently improve survival in premenopausal women with hormone-sensitive breast cancer. Amenorrhea is a well-recognized occurrence after chemotherapy. Premenopausal women who receive adjuvant chemotherapy for breast cancer may undergo premature menopause. The purposes of the study were to identify the severity of menopausal symptoms and its effects on quality of life (QOL) in premenopausal breast cancer patients.

METHODS

Participants were 112 breast cancer patients who had undergone menopause as a result of chemotherapy. This study was approved by the review boards of the participating institutions and all participants gave written informed consent. Data were collected between January 2016 and February 2017. Menopausal symptoms were recorded with Menopause Rating Scale (MRS). Quality of life was measured with the Functional Assessment Cancer Therapy-General (FACT-G). Descriptive statistics and multiple regression analysis were used to analyze data

KEYWORDS: Breast Neoplasms, Adjuvant Chemotherapy, Amenorrhea, Menopause, Quality of Life

RESULTS

Most frequently reported symptoms were sleep difficulties (88.4%), impaired memory (80.4%), Joint and muscle problems (76.8%), feeling depressed (70.5%), hot flushes and sweating (68.7) and nervousness and irritability (68.7%) in premenopausal breast cancer patients. The most severe symptoms were joint and muscle problems (54.5%), urinary problems (48.2%), hot flushes and sweating (47.3%), and heart complaints (43.7%). The results showed that there was a significant correlation between the severity of menopausal symptom and QOL. The correlation analyses showed that the psychosomatic, somatic, and urogenital complaints in MRS all had a negative correlation with QOL score. Also the results of the regression analyses showed that menopausal symptoms, especially psychological complaints, was statistically significant in predicting patients' QOL ($F=80.25$, $p<.001$) explaining 68% of the variance.

Table 2. Factors affecting the Quality of Life of the Subject (n=112)

Variables	B	β	t	p
Somatovegetative domain	-0.309	-.075	-1.005	.317
Psychological domain	-3.423	-.732	-10.275	<.001
Urogenital domain	-0.591	-.102	-1.660	.100

$R=.831$, $Adj.R^2=.682$, $F=80.255$, $p<.001$

Table 1. Prevalence of symptoms as measured by Menopause Rating scale (n=112)

Symptom	% of women having symptoms	% of women with moderate to severe symptoms
Sleep difficulties	88.4	25.9
Impaired memory	80.4	38.4
Joint and muscle problems	76.8	54.5
Feeling depressed	70.5	35.7
Hot flushes and sweating	68.7	47.3
Nervousness and irritability	68.7	42.0
Urinary problems	67.0	48.2
Heart complaints	65.2	43.7
Sexual problems	58.9	36.6
Vaginal dryness	55.4	30.4

CONCLUSION

Menopausal symptom and QOL are essential variables that should be acknowledged when delivering health care to breast cancer patients undergo premature menopause. Therefore, future trials will require more attention to reporting the incidence of chemotherapy-induced menopause and will consider prevention and treatment strategies for the symptoms and long-term side affects of menopause