

THE IMPORTANCE OF EARLY DETECTION OF BREAST CANCER IN PRESERVING WOMAN'S PSYCHOPHYSICAL INTEGRITY - REVIEW

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Summary

Breast cancer remains a major public health problem in the entire developed world. The first and the biggest reason is an ever increasing number of breast cancer diagnoses and consistently high mortality from this disease. Due to the continuous improvement of standard methods and introduction of new diagnostic tests breast cancer can be detected at an early stage, when a high percentage of cases are likely to be successfully treated and/or cured. One of many different types of surgery is usually the first step in treating breast cancer. Each in their own way affects woman's quality of life. Efforts should be made to detect breast cancer as early as possible to entirely avoid some of the treatment modalities and thus significantly improve woman's quality of life in all its aspects.

KEYWORDS: *breast cancer, surgical treatment, chemotherapy, hormone therapy, woman's quality of life*

VAŽNOST RANOG OTKRIVANJA RAKA DOJKE U OČUVANJU PSIHIČKOG I TJELESNOG INTEGRITETA ŽENE

Sažetak

Rak dojke i dalje ostaje velik javnozdravstveni problem u cijelom razvijenom svijetu. Prvi i najveći razlog svakako je sve veći broj oboljelih žena i konstantno visoka smrtnost od ove bolesti. Zahvaljujući stalnom usavršavanju standardnih te uvođenju novih dijagnostičkih metoda rak dojke moguće je otkriti u najranijoj fazi kada je bolest u visokom postotku uspješno liječiva i/ili izlječiva. Prvi korak u liječenju raka dojke najčešće je jedan od više tipova operativnih zahvata. Svaki od njih na svoj način utječe na kvalitetu života žene. Rak dojke treba nastojati što ranije otkriti kako bi se neki od modaliteta liječenja u cijelosti izbjegli što značajno podiže kvalitetu života žene u svim njegovim aspektima.

KLJUČNE RIJEČI: *rak dojke, kirurško liječenje, kemoterapija, hormonsko liječenje, kvaliteta života žene*

INTRODUCTION

Breast cancer remains a major public health problem in the entire developed world. The first and the biggest reason is an ever increasing number of breast cancer diagnoses with more than 1.1 million of new cases detected each year. Another important reason is the consistently high mortality from this disease, accounting for 30% or 410,000 of

breast cancer deaths per year (1). On the other hand, a large number of women survives breast cancer and lives longer due to advances in both loco-regional and systemic treatments. In addition, due to the continuous improvement of standard methods and introduction of new diagnostic tests breast cancer can be detected in earliest stages, when a high percentage of cases are likely to be successfully treated and/or cured. Prolonged dis-

ease-free periods and, to a lesser extent, longer overall survival, raise a new oncological question: What is the quality of life of surviving breast cancer patients? Quality of life issues have therefore become a very important objective of many clinical trials with the results so far showing that the quality of life greatly influences the success of treatment, and along with other relevant medical factors, can be an important prognostic and predictive factor. However, a difficult task that still remains is to find out what aspects of woman's life are particularly affected by breast cancer and how these may be assessed or scientifically proven and compared. The most commonly used and most developed instruments for measuring quality of life in women with breast cancer include as follows: the European Organization for Research and Treatment of Cancer Core Cancer Quality of Life Questionnaire (EORTC QLQ-C30) and the Functional Assessment Chronic Illness Therapy General Questionnaire (FACIT-G), and their adapted versions aimed at women with breast cancer including EORTC QLQ-BR23 i FACIT-B, and finally, the Breast Cancer Chemotherapy Questionnaire (BCQ), the Hospital Anxiety and Depression Scale (HADS) and Medical Outcomes Study Short Form Survey (SF-36). These and many other questionnaires found in literature databases can be divided into three groups: general, disease-specific and tumor site-specific questionnaires, which are primarily focused on studying loss of femininity, sexual dysfunction, depression and anxiety, fatigue, pain, vasomotor symptoms and cognitive functioning in women with breast cancer (2).

Breast cancer is a very serious disease and as such, evokes a high level of stress and concern in every woman, particularly regarding the prognosis and outcome of the disease. However, the effect of diagnosis on the quality of life is highly individual. An especially significant element is a decrease of the quality of life, which is regularly reported during the initial phases, i.e. immediately after the diagnosis and throughout the entire course of treatment. The concern includes the fear of threat to life, fear of pain, fear of recurrence, concerns about losing good looks, fear of sexual dysfunction, fear of losing femininity. The first step in treating most breast cancers is undergoing one of the few types of surgical procedures that primarily differ by their extent.

SURGERY FOR BREAST CANCER

The women who had their whole breast removed experience significant changes in psychological, functional and emotional domains of life, and feel particularly distressed by their sexual dysfunction and distorted body image, especially those younger than 50 (3). Most recent studies show that specific benefits of breast-conserving surgical treatment developed to improve quality of life in early stage breast cancer patients gradually increase over time (4-7). While other studies analyze the influence of different social factors on the quality of life of women undergoing surgery for breast cancer. According to the EORTC QLQ-C30 Role functioning scale data, younger women (under 50 years of age) show a better quality of life after breast-conserving surgery than after mastectomy, and according to the EORTC QLQ-C30 Social functioning scale data, the quality of life of retired women was also better after breast-conserving surgery than after mastectomy. On the other hands, results of the FACIT-An and EORTC QLQ-C30 show a better quality of life after mastectomy in elder, employed and unmarried women. The above leads to the conclusion that the quality of life after mastectomy or breast-conserving surgery depends on different social factors (8).

SYSTEMIC THERAPY

After surgical treatment for breast cancer, a large number of women must also undergo several types of systemic treatment. Each of these treatments to a certain extent, except for their benefits of increasing overall and disease-free survival, also has a negative impact on the quality of many aspects of woman's life: general well-being, femininity, sexuality, cognitive abilities and especially psychological well-being.

The fact that chemotherapy causes acute deterioration of woman's quality of life during its administration is unquestioned. The five most common disorders that occur during chemotherapy treatment include primarily chemotherapy side effects, fatigue, operated breast and shoulder symptoms, sleep disturbance. The symptoms are more pronounced in younger women and women with poor health status. Fatigue that is always

present, to a greater or lesser degree, has the largest negative impact on quality of life (9). Recent data suggest that severe fatigue, sleep disturbances and reduced quality of life of patients on anthracycline-based chemotherapy can be explained by elevated levels of vascular endothelial growth factor (VEGF) and soluble intracellular adhesion molecule-1 (sICAM-1) occurring during chemotherapy (10). However, fatigue is considered to be a very strong predictor of later quality of life, as one year after the diagnosis, fatigue symptoms are observed in daily functioning and quality of life in around 30% to 50% of women with breast cancer. Other symptoms, including pain, nausea and/or vomiting, side effects of systemic therapy and shoulder pain, occur in less than 5% of cases (11).

Literature reports on long-term negative impacts of chemotherapy on quality of life are controversial. Some studies show similar EORTC QLQ-C30 scores in patients who were on chemotherapy (specifically, the CMF regimen) and those who were not (12). The results of some research studies also show that although both physical and psychic performance was significantly improved over time in women receiving adjuvant systemic therapy (chemotherapy, tamoxifen, or both), in their everyday life they were performing much worse than those who did not receive any such therapy. All things considered, previously received chemotherapy may be a statistically significant predictor ($p=0.003$) of poor quality of life for many years (5 to 10 years) after primary treatment (13). Although responsible for a significant improvement of overall survival, adjuvant hormone therapy is also a very important factor with a negative impact on the quality of life of younger women in particular and primarily regarding the prevalence of menopausal symptoms. Hot flashes are the most troublesome symptom for patients with a history of breast cancer, however, there are vaginal discharge, vaginal dryness, dyspareunia, joint pain that also result from tamoxifen and aromatase inhibitor intake, but only with different prevalence rates (2). Although it has been shown that the prevalence of menopausal symptoms is similar in both women with and without breast cancer (14), it is not well known whether hot flashes already occurring during chemotherapy and radiation therapy make intensive therapy much more difficult to tolerate. Results show that about 50% of breast cancer patients already experience

hot flashes during therapy and that in 25% of them these symptoms are particularly severe. In addition, women with hot flashes also experience significantly higher levels of fatigue, have more sleep problems and feel worse physically than women who do not have hot flashes. Women who experience hot flashes during therapy are also of a significantly younger age ($p<0.05$). Younger women generally are representatives of an increasing group of women with breast cancer and currently account for about 25% of the total number of new breast cancer patients. After therapy, this group of women exactly, i.e. women under the age of 50 are more prone to psychic morbidity and have significantly poorer quality of life than older patients, even for years after the diagnosis (15,16).

CONCLUSION

Mammography, high frequency ultrasound and magnetic resonance imaging are valuable modern complementary methods, which, when appropriately combined, result in accurate diagnosis of breast cancer and can detect it at the earliest stage measuring less than 1 cm. Although the breast tumor size is neither the only nor the most important prognostic factor, the phrase '*The smaller the tumor, the better the survival*' still applies, and also implies woman's better quality of life. Currently, the best way to reduce negative effects of cancer therapy is to detect breast cancer as early as possible and thus avoid at least some of long-term treatment modalities.

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