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Multidisciplinary Approach to Breast Cancer: A New Outlook on Nursing Care

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ABSTRACT The treatment and general care for women diagnosed with breast cancer has made a tremendous change and advance in the last decades. Better methods for early detection and screening of the disease, higher compliance of women to go for screening, an open social and political discourse of women and the health care team and others, are just a few that both enabled and are a result of this change. Nurses have been highly involved in these changes, which resulted in the specialization of nursing in the field of breast cancer. This article will focus on the main four points that influence the nursing specialist care, that is, the tailoring of treatment and the ability to offer women treatment which is more specific to their own cancer; the importance of the multidisciplinary team as providing a State of the Art care; the involvement of women in the decision-making regarding their treatment and the specific developing role of the specialist breast care nurse.

KEY WORDS: breast cancer nursing, decision-making, comprehensive/multi-disciplinary breast cancer center, tailored treatment.

Introduction

Breast cancer diagnosis and treatment has been changed radically within the past few years from radical mastectomy according to Halsted, to minimal surgery, when possible. Usually, if woman felt a mass in her breast and sought medical advice and care, the primary caretaker if cancer was diagnosed was a specialized or a general surgeon. Today, the State of the Art approach to breast cancer means that a woman would be referred for routine clinical breast examination, breast mammography and/or US and/or MRI and if diagnosed with breast cancer, she would meet a team of professionals in a multidisciplinary comprehensive breast center. This represents the change of paradigm in breast cancer care that was generated in the last two decades.

The other related changes are summarized in the following major points, that is, the advance in the early detection of breast cancer; the progression in therapy of breast cancer and the concept of personalized or tailored medicine and care for the individual woman; the contribution of the multi-disciplinary team and the establishment of comprehensive breast cancer centers; the participation of the individual woman in the decision-making regarding her care, and finally the role of the Specialist Breast Care Nurse as a key member of the team and as the navigator of the treatment process. Beyond all of

these, we have witnessed, in the last decades, a growing knowledge in understanding of the psychosocial aspects related to the diagnosis of breast cancer, to the woman and her significant others.

In this article, a short review regarding the points which relate to nursing care, tailoring treatment, the comprehensive breast cancer center, women's involvement in the decision-making regarding their care and the role of the specialist breast care nurse, will be given and discussed.

The Concept of Tailored Treatment for Primary Breast Cancer

To tailor a treatment, means to personalize disease management as much as contemporary knowledge allows us. Breast cancer is one of the most studied malignancies. The facts acquired are used for individualization of care for each and every patient. The suggestions are what the treatment to be applied to a certain woman starts as early as the tumor biopsy is performed to confirm cytologically and histologically the suspected malignancy. An ultimate surgery and axillary lymph node sampling should be performed to confirm the final diagnosis. This surgery will provide us with the information about the type, invasiveness, grade of the tumor and lymph node status. Molecular analyses to identify hormonal receptors and HER-2 expression status should be carried out in case this information was not obtained earlier. In some cases, an additional blood serum examination is needed to identify BRCA 1 and 2 mutations in women whose personal and familial history may be suspicious. If one is found to be a carrier of BRACA 1/2 mutation, a discussion about the type of surgery and especially about prophylactic mastectomy should be well thought-out involving the patient in this decision.

Today, like many years ago, the age of the patient, her menopausal status, number of lymph nodes involved, tumor size, histological type and grade of the tumor, markers of proliferation e.g. K-67 labeling index, hormonal receptor status and HER-2 expression are still the pedestal for adjuvant treatment decision. Several international committees tried to stratify prognostic and predictive factors influencing survival of breast cancer patients by dividing the patients in three groups: low, intermediate and high risk. These formulas and programs were usually developed on the bases of retrospective clinical data to ease clinical decisions, to estimate patient prognosis and benefits of adjuvant systemic treatment. Some, like Adjuvant Online program are available online on the website of the National Cancer Institute.

Lately, several genetic recurrence assays were developed. Firstly, a test named "Oncotype™", a 21 gene recurrence assay, a potential useful tool, selects node negative, hormonal receptor positive women in whom systemic chemo and/or hormone therapy may be beneficial. This test is not universal and needs further validation. Nevertheless, 2007 ASCO and NCCN guidelines recommend the use of "Oncotype™". Among other multiparameter gene array assays, the MammaPrint® (Amsterdam signature) assay is the most promising. The test is performed on fresh frozen tissue, using a 70 gene assay, for the patients having Stage I and II, node negative breast cancer. An additional test, using a 76 gene assay, the Rotterdam signature, was also developed using clinical data and validated in two different studies. This test, similar to the MammaPrint®, is able to recognize those patients who are at risk for extension of the disease. The third, 50 gene assay, recently described in JCO is different from previous available tests and can be used in node positive patients, as well[1-8].

The Comprehensive Breast Cancer Center

The concept of the multidisciplinary comprehensive breast cancer centers is a relatively new concept that has been mainly mentioned in North American and European literature. The European Society for Mastology (EUSOMA) has produced guidelines regarding the need for Comprehensive Breast Cancer Centers and their role and structure[9]. One of the major requirements of a Breast Cancer Center is that it will care for a certain number of women every year, and it is suggested that over 150 new cases per annum will be treated. It is also stated that a breast surgeon should operate at least 50 breast surgeries a year. In addition, it is a prerequisite that every professional who works within such a setting, will have a formal training in his profession in relation to breast cancer. This means, for example, that the pathologist will be a breast pathologist who specializes in breast cancer diagnoses, and the radiologist will have expertise in breast imaging, and the nurse will have a formal education in breast cancer nursing[9-11].

The center would encompass the screening activities in the community, the follow-up program for women at high risk, and the treatment of breast cancer-surgery, chemotherapy, radiology, hormonal and biological therapy, both for primary and for advanced disease[9]. Long term follow-up after initial treatment for breast cancer will also be provided at the center. The center should have a Head leading a multidisciplinary team comprising of at least each of the following disciplines: surgery, oncology, pathology, radiology, radiotherapy, plastic surgery, nursing, social work, psychology, physiotherapy and others, according to specific needs.

Another important element of such centers is that they will have an experienced forum of specialists to discuss individual cases. As Rabinowitz[12] states: "The heart of comprehensive, interdisciplinary breast care is the consensus planning conference that brings together team members on a regular basis to discuss individual patient cases and develop comprehensive treatment plans." This

interactive and dynamic forum has become integral to the interdisciplinary management of breast diseases and results in an increased level of communication between the participating health-care professionals and the patients they treat".

The role of the breast care nurse in such a center is to coordinate and navigate patient care, as well as to liaise between the members in the multidisciplinary team. Managing new patient referrals and ongoing files and setting the names together for the multidisciplinary meetings are just an example of such work.

The Involvement of Women in the Decision-Making-Regarding their Care

Since 1985, the well known study of Fisher et al.[13] that established the possibility of conservative treatment for early stage breast cancer, women are more commonly given the choice between having a mastectomy or a lumpectomy, followed by radiation therapy. However, the choice between these two surgical options is not the only decision women may have to make for their breast cancer treatment. Other choices may include the decision on whether to have breast reconstruction, if a mastectomy was decided; or whether to have adjuvant chemotherapy to reduce the risk that the cancer will recur, and she may even be asked to join a research protocol. In addition, a woman faces various decisions to make that is, she may be proposed to receive hormonal treatment, if the tumor is ER, PR positive, and in some cases, Herceptin, the new adjuvant treatment for women with Her2-expressive tumors, may be prescribed. Apart of these, she has to take plentiful non-medical decisions, including personal relevant choices such as: disclosure to family members, whether or not to continue work, where to go for social support, and the many options that ultimately shape a woman's quality of life following treatment.

Extensive research has been done to examine the concept of women's decision-making in breast cancer care[14-18]. The issues surrounding personal decision making are multidimensional. There is growing evidence that there is a psychological benefit of being involved in the decision-making process regarding treatment[19]. Women demonstrate different preferences regarding taking part in the decision-making process and the role they desire to have in collaborating with their physician[14,20]. To participate in making these decisions, women require information, and a number of studies have documented individual preferences for the type and amount of information women seek in order to make an informed choice[20-22]. More recent studies are linking decision making behavior with the quality of life following treatment[23].

Anderson et al.[24] tried to examine the relationship between women's perception regarding their involvement in their treatment decision-making and long term health related quality of life (HRQOL). They interviewed women 2.5 years and 10 years post-diagnosis about their health related quality of life, and their perceived involvement in the decision-making regarding their care. They found that perceived involvement in decision-making about breast cancer treatment and follow-up care are associated with better HRQOL for survivors 2, 5, and 11 years post-diagnosis.

The benefit of women's involvement in decision making in terms of coping, psychological well being and health related quality of life seems to be evident from the accessible literature and research. However, who should help the women in making these hard and informed decisions? It is the argument of this article that breast care nurses are in the best position to offer women this help during the demanding decision-making process. The nurses have the knowledge, the time and are available for women in order to support them and provide professional counseling and advice at the decision-making points along the breast cancer trajectory.

The Role of the Breast Care Nurse

Breast cancer nursing, as an essential specialty, was established in the UK about 2 decades ago[25-28]. Since then, other countries like Australia, Scandinavian countries and Israel[29-32] have introduced this specialty. In Britain, once the role was implemented, studies have been done to examine its advantages in terms of reducing anxiety and depression in women diagnosed with breast cancer. The general psychosocial benefit was demonstrated in these women who have been followed and counseled by a specialist nurse[27,33,34]. Recent studies in Australia, have also demonstrated the benefit and importance of the role to women and to their families[35,36].

The British Association for Surgical Oncology (BASO) introduced guidelines[37] for the treatment of symptomatic breast diseases. In its recommendations the association mentions the importance of the care of women by a multidisciplinary team and the role of the breast care nurse in that team. The guidelines[37] state that: "The breast care nurse is a part of the breast care team and should be available for all patients undergoing treatment for breast disease. The breast care nurse should be present particularly at the time of diagnosis and when options for treatment are discussed."

Conversely, recently, some conflicting data regarding the value of the specialist breast care nurses have been published. Cruickshank et al.[38] conducted a Cochrane literature search looking for randomized controlled trials assessing the effects of interventions carried out by breast cancer nurses (BCN) on quality of life outcomes, for women with breast cancer. They integrated 5 studies that met their inclusion criteria. The conclusions of their search are stating that: "There is limited evidence at

this time to support the contention that interventions by BCNs assist in the short-term with the recognition and management of psychological distress for women with breast cancer. Further research is required before the impact of BCNs on aspects of quality of life for women with breast cancer can be known".

Conclusion

Breast cancer care has made a significant change in the past few years. Nurses were an integral and important part of this change. The change started from the ability of women to talk about their disease and to share their experiences related to the disease. This disclosure and the possibility to speak out enabled and encouraged a social discussion on all aspects of care. A new dialogue between the health care team and women affected by breast cancer was created. Nurses were, and still are, at the core of this discussion. The role of the specialist nurse, dedicated to care only for women with breast cancer was found to be pivotal. This new paradigm entails that women face many decisions and are more involved in the choice of treatment and care. Tailored treatment is a new possibility for managing care. Nurses, who have the training, knowledge and capacity, are well placed to help women at all junctions of the breast cancer trajectory.

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