
Menopause After Breast Cancer: How Women Cope

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Premenopausal women who are diagnosed with breast cancer must deal with multiple challenges related to the diagnosis, the effects of treatment and, in many cases, premature and abrupt treatment-induced menopause. Clinicians who understand the process by which their patients navigate these life-altering adjustments are in the best position to intervene in a way that will optimize their long-term health and quality of life.

The American Cancer Society estimated that there would be 192,200 new breast cancer cases in women in the United States in 2001¹ and that 25-30% of those women would be premenopausal.² Following local regional management of breast cancer with either mastectomy or breast conservation surgery and radiotherapy, the overwhelming majority of women are treated with adjuvant therapy, consisting of chemotherapy, hormone therapy or a combination of the two. While adjuvant therapy has dramatically improved disease-free and overall survival in breast cancer patients, especially in premenopausal women, it is associated with a wide variety of acute side effects, some potential long-term toxicity and, in many cases, induced menopause.^{3,4}

It is estimated that chemotherapy-induced menopause occurs in 10-50% of women younger than 40, and in 50-94% of those over the age of 40 years.^{3,5,6} In addition to age, the specific chemotherapy drugs (especially alkylating agents), the drug dose and duration of therapy will influence whether a woman maintains her menstrual function or becomes perimenopausal or menopausal. Amenorrhea, the common criterion used in the literature to describe menopause associated with adjuvant therapy, can be either permanent or reversible. Even among women who maintain their menses or experience a return of menstrual cycles, it is likely that they will become menopausal at an earlier than expected age, because of the follicular destruction and fibrotic changes in the ovary that result from chemotherapy.^{3,7-9}

Coping With Induced Menopause

Menstrual cycle changes, hot flashes, night sweats, trouble sleeping, vaginal dryness and mood changes have been well documented in women with breast cancer who experience chemotherapy-induced menopause.¹⁰⁻¹⁵ These effects of induced menopause have been associated with emotional distress, and have negatively impacted sexual health and quality of life.¹⁶⁻²⁰ Furthermore, adjuvant hormonal therapy

is commonly prescribed for 5 years following chemotherapy and can contribute to menopause symptom distress²¹ and changes in sexuality and sexual function.²² Lastly, in addition to acute side effects of chemotherapy-induced menopause, there are possible long-term consequences, such as a potential increased risk of osteoporosis because of accelerated bone loss, and cardiovascular sequelae.³

Stages of Transition

How does a young midlife woman cope with a breast cancer diagnosis, side effects of chemotherapy and menopause, all at the same time? The remainder of this article will highlight the findings from an exploratory study that was conducted in an attempt to answer this question.^{23,24} An inductive qualitative approach using grounded theory methodology was employed. Subject recruitment, data sources, data collection and analysis have been previously described in detail.²⁴

There were 27 participants in the study; the mean age was 40.8 years (± 3.7) and the majority of the women were well educated, married and employed. Thirty-seven percent of the women received tamoxifen, as adjuvant hormonal therapy, following a course of chemotherapy. Of the 27 women, one had a return of menses following completion of chemotherapy (37 years of age), two reported a perimenopausal pattern (ages 37 and 43), and the remaining 24 women had amenorrhea from the time of chemotherapy initiation (age range 33 to 47 years).²³

The women in the study navigated through their multiple and concurrent life-changing experiences by essentially carrying on.²⁴ In the process of carrying on, women transitioned through four stages: being focused, facing uncertainty, becoming menopausal and balancing. The dominant factors that influenced how women coped with the experience as they progressed through these stages included communication with healthcare providers, informational preparation about menopause, and the incidence, severity and distress of menopausal symptoms.

Being focused. This stage reflects the

time following diagnosis when the women were on adjuvant chemotherapy. Women in this stage minimized any menopause-related symptoms, as those symptoms were obscured by practical matters, such as getting through the chemotherapy treatments, learning the signs and symptoms of infection associated with myelosuppression and learning how to cope with hair loss and nausea. Any "meaning" associated with menopause at this point was isolated and limited to irregular menses. The women were, instead, focused on doing what they needed to do to get through the treatment, and carry on with their lives at home for themselves and for their families.

LaTour,²⁵ in her description of stages of healing after a breast cancer diagnosis, calls this the "fine fine" stage. Women maintain they are fine but, in reality, they are not, and they are unable at that point in time to recognize it. They are busy learning about cancer and cancer treatment, and they act as if they are on automatic pilot, continuing to do what they have to do while they put their trust for life in the hands of the oncologist and oncology nurses.

Facing uncertainty. Communication and information were the two major factors that contributed to the women's uncertainty. Initially, the women in the study were told that their periods might stop and a few were told about hot flashes, but none received comprehensive information about menopause or the menopausal symptom profile. The emphasis at the beginning of chemotherapy from the oncology staff tended to be on the critical variables of risk (neutropenia and infection) and on prevention and management of distressful side effects, such as hair loss and nausea and vomiting. Consequently, during this time, women who were experiencing menopausal symptoms had to rely on themselves, on their bodily cues, to interpret their symptoms. Uncertainty was greater for those women who were the least prepared about menopause, but also related to lack of clear attribution of cause for symptoms. Were the symptoms they were experiencing from the breast

cancer treatment or from the menopause, or were they an emotional response to everything that was going on?

Finally, the lack of communication about menopausal symptoms reflected the emphasis of the oncology staff on treatment and also, to some degree, a lack of knowledge about the menopausal experience. Even once treatment was over, many women reported a lack of communication about menopause, particularly related to sexuality and sexual health. It is, however, important to note that this is not solely a reflection on the oncology staff. Women were often reluctant to discuss issues such as decreased libido and vaginal dryness, as the focus of their follow-up visits with the physician was on their cancer. As time goes on, probably a year or longer for most, women begin to feel less vulnerable to the existential concerns of dying and, as they adapt to their fears of recurrence, many become more comfortable about bringing up and discussing long-term side effects that impact various aspects of their lives.

Becoming menopausal. This stage marked the beginning of the women's more global awareness of menopause as something more than merely the cessation of menstrual cycles. The women's arrival at this stage primarily occurred once treatment was completed and was defined either by their menopausal symptom experience or the recognition that they were permanently in menopause. During this stage, the women began to explore the meaning of aging and their feelings about seemingly getting older overnight. While attempting to master these emotions related to aging, they were now making the transition into a new reality; symptoms from chemotherapy were beginning to resolve, hair was beginning to grow back, they were no longer nauseated, and their energy levels were improving, but they were now faced with a new set of physical symptoms and changes related to the menopause. For many of the women this was a stark realization: "The chemotherapy is over and now I have to live with this." Natural transition into menopause also prompts

women to face getting older,²⁶ but the uniqueness for the women with chemotherapy-induced menopause is that they are confronting age-related experiences that are, in fact, age-inappropriate.

Balancing. For most of the study participants, this final stage occurred about a year or longer after completion of adjuvant chemotherapy. The balancing stage was characterized by healthy lifestyle behaviors, being cautious and attempting to deal with our medical system of specialty care. Keeping healthy involved the women's strategies for learning about and evaluating lifestyle behaviors that would not only reduce their risk of breast cancer recurrence or development of a new cancer, but also would reduce any other health risks, such as heart disease.

Closely related to the women's focus on staying healthy was a tendency to be wary or cautious. Women carefully weighed the potential risks and benefits of anything that went into their bodies, whether it was food, herbs or medications. Estrogen tended to be viewed as a "red-flag" risk by many of the participants, but the women also tended to be averse to taking medications, in general; after the rigors of chemotherapy, they simply didn't want to put any more "chemicals" into their bodies.²⁴

Interestingly, in a study by Ganz and colleagues²⁷ on a comprehensive individualized intervention for breast cancer survivors with menopausal symptoms, 28% of the women who were eligible for the study chose not to participate because they were unwilling to accept a pharmacologic symptom-management intervention. Furthermore, over the course of the study, 27% of the participants chose not to follow pharmacologic recommendations. Clinicians who understand and appreciate the source of this reluctance in their patients who have been treated for cancer will be able to counsel them more effectively.

During the balancing stage, many women required interventions for menopausal symptom management, while others did not. Many women also voiced concerns about potential long-term ef-

fects of early menopause on the bones and heart. Many of the participants were not interested in pharmacologic interventions for symptoms such as hot flashes. During cancer treatment, these symptoms were secondary to chemotherapy effects and, over time, the symptom pattern had become familiar; the women had learned to tolerate or live with mild to moderate symptom distress. For other symptoms, however, like vaginal dryness, the perceived severity and lack of effective nonestrogen interventions created significant distress for some of the women. Even so, the women did not want to consider using estrogen cream or a vaginal ring for local symptom relief, as the "being wary" strategy entered into the evaluation of options.

Finally, many women struggled with our medical system of specialty care in their attempts to obtain information and make informed choices. Clinicians in various fields of specialty—oncologists, gynecologists, internists—each have a unique body of specialty knowledge and tend to view problems and management approaches from their unique "lens," or perspective. A salient example of this type of struggle was related by several women in the study who were referred to gynecologists for vaginal dryness. In many cases, the gynecologists felt that the potential benefits of estrogen therapy, with respect to symptom relief, far outweighed any potential risk, while the oncologists, and many of the women themselves, felt fairly strongly about the risks (actual or potential) of estrogen outweighing benefits in breast cancer survivors. Part of struggling with the system for these women was the specialty providers' lack of knowledge, which was needed to meet all of the women's healthcare needs. Oncologists do not have comprehensive menopause knowledge, and the gynecologists were generally unaccustomed to managing menopause in the context of cancer.

The Menopause Symptom Experience

The symptom profile reported by the women in this study is very similar to that

of women who experience natural menopause. There are, however, some important differences and unique experiences that should be understood and appreciated by clinicians.

Changes in menstrual cycle function. For the study participants, induced menopause was an unnatural, age-inappropriate event. Even those who were very close to the age at which they could expect menopause were not ready for this life change. These women were premenopausal before the breast cancer diagnosis, they were not anticipating menopause, did not have peers experiencing it and, in many cases, were quite surprised by the abruptness of amenorrhea. Many of the women stopped menstruating after the very first cycle of chemotherapy. Infertility was not an issue for the women in this study, as they had all made their child-bearing decisions prior to the diagnosis, including the single women. It should be noted, however, that this is by no means a universal experience; infertility is an important issue for younger women who have to cope with menopause at a younger-than-expected age.

Hot flashes. In breast cancer survivors, the incidence of hot flashes has been reported to be 55-65%, although some of these data reflect varying periods of time since the onset of the menopause.^{12,13,16} As in natural menopause, the incidence of hot flashes is higher during the menopausal transition, with a decrease over a few years. In the present study, hot flashes were reported by 89% of the women; this is consistent with the 58-93% hot-flash incidence reported for women in the first 2 years of natural menopause.²⁸ For breast cancer survivors, some investigators have reported an increased level of hot-flash symptom distress with induced menopause.^{12,14,29} In the present study, women reported great variability in symptom distress, from no hot flashes to very mild to moderate or severe symptom distress.

Insomnia. Insomnia is a well-documented problem among cancer patients. In one review³⁰ it was estimated that 23-44% of cancer survivors (men and women)

report insomnia. In a prospective, longitudinal, quality-of-life symptom-distress study involving women after breast cancer diagnosis,³¹ insomnia was consistently in the top five symptom-distress ratings across every time point: before adjuvant therapy and at 3, 6, 9 and 12 months. In the current study, insomnia was almost a universal complaint. Based on what we know about the interruption of rapid-eye-movement sleep that is associated with hot flashes and night sweats, the incidence of insomnia might be higher in women who are experiencing these vasomotor symptoms.

Cognitive changes. Several study participants clearly described forgetfulness and difficulty concentrating, and they were able to distinguish these alterations from their emotional responses. There are a few published preliminary studies suggesting a relationship between cognitive changes and adjuvant chemotherapy for breast cancer.^{32,33} Neither of the studies cited above addresses the menopausal status of the study subjects. The association of cognitive changes and menopause is controversial, although well documented in women's lay health publications. This is another symptom area that highlights the way in which this group of women is plagued by uncertainties and questions that cannot yet be answered: What causes the episodes of forgetfulness or inability to concentrate? Is it the breast cancer, the chemotherapy, the menopause, an interaction effect?

Sexual health. Vaginal dryness, dyspareunia, changes in libido, and limited discussion of these problems between the women and their healthcare providers were common among the women in the study. This varied significantly, however, in terms of degree of severity, perceived distress and interference with the women's sexual functioning. For some women, these were the most distressful sequelae following treatment. Other women in the study reported no symptoms, some experienced very mild symptoms that were successfully managed with over-the-counter products, and a few noted that, while these symptoms had changed their

precancer sexual patterns, they were alive and that was the most important issue.²³ Some of the variability described reflects time from treatment, but it also reflects the lack of discussion of sexuality after breast cancer treatment between the woman, her healthcare providers and, often, her partner. Sexual dysfunction and poor sexual health outcomes in younger women following chemotherapy for breast cancer have been consistently reported, along with the need for open communication.^{16,17,34,35}

Weight gain. Weight gain among the women in this study was very common, but the level of distress associated with the weight change varied considerably among the participants; for some, it was the most distressful symptom, and for others it was inconsequential. Weight gain associated with chemotherapy is well established, with the first descriptive study published in 1983.³⁶ Several other investigators have continued the study of weight gain, trying to determine causative factors and potential significance to women's health.^{5,37,38} In a recent longitudinal study extending for 3 years after chemotherapy,³⁹ 63% of women experienced a clinically significant (>5 pounds) weight gain during treatment and, at 2 and 3 years, two-thirds of those women had maintained the weight they had gained. This has potentially important health consequences for women as they age, even if they are not distressed about weight gained during cancer treatment. Menopause is associated with less free fat mass, decreases in resting metabolic rate, central adiposity and lower lean body mass.⁴⁰⁻⁴² Many women in this study blamed menopause for the weight gain and the inability to lose weight despite dietary and exercise interventions. Similar to other side effects that the women reported, the weight gain was a source of uncertainty and frustration because of the inability to identify its cause. Weight gain also produced additional distress for those women who were very concerned about long-term health effects and efforts to stay as healthy as they could.

Implications for Clinical Practice

What are the factors that influence the appraisal and management of menopausal symptoms in these breast cancer survivors? There are, of course, multiple factors involved, but informational preparation and degree of symptom distress were the primary contributors to how the breast cancer survivors in this study coped with the induced premature menopause. Women who were not well informed and reported moderate to severe menopausal symptom distress struggled with the experience. They were more angry, resentful and emotionally distressed than other participants, and they were generally unsatisfied with available symptom-relief measures.⁴³ In contrast, there were women who transitioned quite easily through the experience. These women were characterized by either mild symptoms or a complete absence of menopause-related symptoms and felt they had been adequately informed by their healthcare providers, or sought out and found information on their own.

The overwhelming majority of women tolerated the experience. These women reported menopausal symptoms, usually of mild to moderate severity, but were able to put them into the context of their lives, to manage them and integrate the menopause into their breast cancer recovery.

Important findings from the study that need to be underscored for clinical practice include the vital importance of adequate information to prepare women for chemotherapy-induced menopause, the distinct differences among women related to which symptoms were perceived as most distressful, the variability in severity of distress for any given symptom and the importance of continuity across specialty practitioners in managing the effects of menopause in the context of breast cancer. As healthcare practitioners, we sometimes tend to assume that all symptoms must be managed, with the goal being total symptom relief. The context of breast cancer and the findings from this study challenge that premise but prompt us, as providers, to open up

the lines of communication to fully determine the impact of symptoms on a woman's life. Women with mild to moderate menopausal symptoms might not require any interventions beyond those already well described in the natural menopause literature, such as layered cotton clothing for hot flashes. Many women in the present study became familiar with the symptoms and symptom patterns during treatment; by the time therapy was complete, they knew what to expect and how to manage the symptoms. Uncertainty was largely overcome by experience. We must, however, target those women with moderate to severe menopausal symptoms that can be associated with significant disruption (e.g., sleep, sexual function) of their lives.

Assessment of severity of symptom distress and impact on daily life, and a discussion of potential interventions are essential. It also is important that the concerns of younger midlife women be addressed, such as those pertaining to developmental issues and their family roles.^{44,45} Finally, in the context of the emotional recovery of breast cancer survivors, healthcare providers need to be knowledgeable about healthy lifestyle behaviors and support breast cancer survivors in their attempts to keep healthy and balance the dynamic relationship between breast cancer and menopause in their lives.

Conclusions

Women who experience abrupt and early menopause as a result of breast cancer treatment face many layers of challenges, both physical and emotional. The real issue for these women is vulnerability—both physical and psychological—related to cancer and to menopause. The events of September 11 have likely given us a bit more insight into what it means to feel truly vulnerable; cancer patients often say that once you're diagnosed, you're never the same. As is the case for many of us after the tragic events of this past fall, those who are forced to deal with a life-altering event, such as a cancer diagnosis and treatment, tend to "look at things through a different

lens" thereafter. The clinician who understands this, as well as the process by which women with breast cancer navigate what can be a daunting maze of adjustments, is in the best position to intervene with these women in a way that will optimize their long-term health and quality of life.

As clinicians, we need to make certain our patients are well informed about what they can expect, both acutely and in the long term. This might be more easily stated than implemented. Although women want to be fully informed about menopause, timing is an important consideration; a complete discussion of such topics during the initiation of chemotherapy is unlikely to be successful or to meet long-term informational needs. Information about the menopause experience needs to be provided on an ongoing basis, with periodic reinforcement and validation of understanding.^{46,47} Oncology providers need to have basic knowledge of menopause and identify practitioners in women's health who can collaborate in the care of women with breast cancer, so that their informational and physical needs are met. Furthermore, we need to encourage further research on nonhormonal menopausal symptom management (pharmacologic and non-pharmacologic), models of care delivery for this population and feasible lifestyle behaviors aimed at reducing potential negative health effects of the induced menopause on the bones and the heart as these women transition into long-term cancer survivorship. ■

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References

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