

## E16. Managing the side effects of breast cancer

Patricia A. Ganz

UCLA Schools of Medicine and Public Health, Jonsson Comprehensive Cancer Center, Los Angeles, CA, USA

Most women diagnosed with early stage breast cancer can expect a normal life expectancy; however, there are many side effects of treatment that affect day-to-day functioning and quality of life.<sup>1–3</sup> More attention is being paid to minimising the long-term effects of cancer treatment, through more limited surgery and tailoring of cancer treatments. Nevertheless, there are millions of women living with the after effects of treatment. Although palliative care is often focused on end-of-life cancer care, the concept of palliation is also being applied to the management of cancer survivors, where the cancer is inactive, but uncontrolled symptoms remain.<sup>4</sup>

### Common side effects of breast cancer treatment

Table 1 lists the most frequent symptoms and side effects of breast cancer and its treatment. At diagnosis, psychological distress is common, and may be exacerbated by the acute toxicities of treatment, disruptions in home and work life, and significant fears of recurrence and vulnerability. Women may endure weeks to years of cancer directed therapy and endocrine therapy for as much as a decade. There are both physical and psychosocial costs to this therapy, and at the end of initial treatments, women may have substantial impairments that take months to years to resolve.<sup>3,5</sup>

Table 1 Common symptoms and side effects experienced by breast cancer survivors

Pain
Fatigue
Depression
Sleep disturbance
Physical limitations
Cognitive changes
Lymphoedema
Sexual dysfunction
Menopause related symptoms
Body image changes
Infertility

Fatigue is one of the most common side effects of cancer treatment, and this may persist for years after breast cancer treatment. Often, fatigue co-occurs with depression, insomnia and pain in these women, and these symptoms may have an underlying physiological basis or may just be co-occurring.<sup>6</sup> Cognitive changes – difficulties in concentration, attention and executive

function – are also reported by women after breast cancer treatment, and are the subject of focused international research efforts.

Breast cancer treatments frequently precipitate menopause in younger women, which can result in infertility, severe vasomotor symptoms, and disruptions in sexual functioning.<sup>2,7</sup> Sexual functioning is worsened by chemotherapy in pre and postmenopausal women, and is affected by the use of endocrine therapies such as aromatase inhibitors, which increase vaginal dryness. Psychological distress, an unsatisfactory partner relationship and vaginal dryness all contribute to poorer sexual functioning in breast cancer survivors.<sup>8</sup>

Lymphoedema is a very troubling post-treatment problem associated with axillary dissection and radiation therapy. While the incidence of this problem has declined somewhat with the more widespread use of sentinel node biopsy, it is an important long term problem that is in need of preventive strategies. Pain in the arm, chest wall and breast are also common post-treatment complaints in women with and without mastectomy. Common physical symptoms post-treatment are musculoskeletal complaints, arthritis and peripheral neuropathy, which may be a direct result of the treatment exposure (e.g. taxanes, aromatase inhibitors), or sometimes the abrupt onset of menopause.

### Management of common symptoms

Acknowledging and attending to the on-treatment and post-treatment emotional needs of breast cancer patients is critical to their recovery. Preparing women for what to expect when treatment ends can enhance their physical recovery. In a randomised controlled trial, women who were more prepared for what to expect in the post-treatment period enhanced their emotional recovery. In addition, women who viewed a brief video that modelled post-treatment coping had enhanced return of energy and vitality in the subsequent year. About 25–30% of women may have significant psychosocial distress and depressive symptoms that paradoxically emerge after primary treatment ends. It is very important to assess needs at the end of treatment and identify those who may need more social support, brief therapeutic counselling or medications.

It may take a year or more for energy to return to pre-illness levels, and this can be very troubling to some

women. Looking for medical explanations (e.g. anaemia, thyroid or cardiac dysfunction) should be done, but often there are no direct explanations other than the impact of treatments. Reassurance about the likelihood of recovery plays a key role for most women, as well as encouraging resumption of regular physical activity if this has been neglected. Resting and naps should be encouraged, if necessary, as well as adjusted work schedules. For most women, regular walking for exercise may be the simplest prescription to advise. Others, who are used to more vigorous physical exercise, should be encouraged to resume activities that they enjoy. Some women find that engaging in new kinds of activities such as yoga or tai-chi may provide additional benefits due to the meditative aspects of these practices.

Menopausal symptoms are common in breast cancer patients, and these may start during chemotherapy treatment as menstrual periods cease, or thereafter with the initiation of either tamoxifen, ovarian ablation or aromatase inhibitor therapy. The most common symptoms are hot flushes and night sweats.<sup>1</sup> In a randomised trial focused on management of menopausal symptoms in breast cancer survivors, care delivered by a nurse practitioner that provided a comprehensive assessment and tailored pharmacological and behavioural strategies, led to a significant improvement in symptoms.<sup>9</sup> Currently, there are a wide range of pharmacological alternatives to oestrogen that are effective in reducing hot flushes, including various antidepressants and gabapentin.<sup>10</sup> Care must be used when giving anti-depressants to women on tamoxifen, due to possible interference with metabolism to endoxifen. Complementary and alternative therapy approaches, including acupuncture, have been tried. For vaginal dryness, vaginal lubricants may be helpful at the time of sexual intercourse. Vaginal moisturisers may also be used; however, the safety of low dose oestrogen preparations has not been adequately studied.

Pain and other physical limitations are best managed through a comprehensive pain clinic or rehabilitation assessment. Local therapies such as massage and decongestive lymphatic therapy for lymphoedema may be helpful. There is current interest in use of exercise to both prevent and manage lymphoedema. Exercise may also be useful in addressing body image changes, as many women have difficulty adjusting to how their body appears to them after breast cancer treatment, both from the breast surgery as well as weight gain.

## Conclusion

After breast cancer treatment, many women have persistent symptoms. As part of post-treatment survivorship care, the health care system needs to address these concerns in order to maximise functioning, well-being and quality of life. Careful symptom assessment is key; application of interventions during and after treatment is essential.

## Conflict of interest statement

None declared.

## References

- [1] Ganz PA, Rowland JH, Meyerowitz BE, Desmond KA. Impact of different adjuvant therapy strategies on quality of life in breast cancer survivors. *Recent Results Cancer Res* 1998;152:396–411.
- [2] Ganz PA, Rowland JH, Desmond K, Meyerowitz BE, Wyatt GE. Life after breast cancer: understanding women's health-related quality of life and sexual functioning. *J Clin Oncol* 1998;16(2):501–14.
- [3] Ganz PA, Desmond KA, Leedham B, Rowland JH, Meyerowitz BE, Belin TR. Quality of life in long-term, disease-free survivors of breast cancer: a follow-up study. *J Natl Cancer Inst* 2002;94(1):39–49.
- [4] Ganz PA, Hahn EE. Implementing a survivorship care plan for patients with breast cancer. *J Clin Oncol* 2008;26(5):759–67.
- [5] Ganz PA, Kwan L, Stanton AL, et al. Quality of life at the end of primary treatment of breast cancer: first results from the moving beyond cancer randomized trial. *J Natl Cancer Inst* 2004;96(5):376–87.
- [6] Bower JE. Behavioral symptoms in patients with breast cancer and survivors. *J Clin Oncol* 2008;26(5):768–77.
- [7] Ganz PA, Greendale GA, Petersen L, Kahn B, Bower JE. Breast cancer in younger women: reproductive and late health effects of treatment. *J Clin Oncol* 2003;21(22):4184–93.
- [8] Ganz PA, Desmond KA, Belin TR, Meyerowitz BE, Rowland JH. Predictors of sexual health in women after a breast cancer diagnosis. *J Clin Oncol* 1999;17(8):2371–80.
- [9] Ganz PA, Greendale GA, Petersen L, Zibecchi L, Kahn B, Belin TR. Managing menopausal symptoms in breast cancer survivors: results of a randomized controlled trial. *J Natl Cancer Inst* 2000;92(13):1054–64.
- [10] Loprinzi CL, Sloan J, Stearns V, et al. Newer antidepressants and gabapentin for hot flashes: an individual patient pooled analysis. *J Clin Oncol* 2009;27(17):2831–7.