VIEWPOINT

Contralateral Prophylactic Mastectomy for Breast Cancer
Addressing Peace of Mind

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Addressing patients' fears and concerns about the effects of disease and its treatments on their lives and on their families is an important goal of cancer management. This is challenging for clinicians because these issues are complicated and difficult to explore in brief visits. A diagnosis of breast cancer and the sudden escalation of decisions trigger powerful emotional reactions from patients. Patients generally feel well at the time of diagnosis but suddenly confront a major health threat, a complicated decision context, and an arduous treatment course. Virtually all treatments that confer lifetime benefit are initiated in the first few months after diagnosis, and the decision-making process is generally compressed into the first few weeks. A sense of urgency in treatment planning is reinforced by the experiences of family and friends, by the powerful messages in the media, and by some clinicians who advise patients to initiate treatment quickly. The increasing use of the time from an abnormal mammogram to definitive cancer surgery as a quality measure in some systems further reinforces the impression that any delay may result in a worsening of prognosis. Consequently, it is understandable that many patients want to do everything they can to leave this intense period of health threat, treatment decision making, and treatment delivery behind—to move on with their lives with greater peace of mind. However, a consequence of this urge to leave it behind is the desire by many patients to quickly embrace all possible cancer treatments regardless of the level of benefit.

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In this context, physicians may be prone to acquiesce to a patient's preference for management plans with more aggressive treatments. For example, a patient's expression of fear about recurrence or desire to avoid regret later may lead to a decision to perform more aggressive surgery or administer chemotherapy in patients with uncertain clinical indications.[1] Contralateral prophylactic mastectomy (CPM) for patients with unilateral breast cancer is a glaring example of the need for greater clarity about the clinical logic of performing a more aggressive intervention to largely address patient reactions to the management plan. Contralateral prophylactic mastectomy for patients with unilateral breast cancer has increased markedly in recent years and is much more frequently performed than bilateral prophylactic mastectomy for women without a diagnosis of breast cancer. In a study using the National Inpatient Sample,[2] the rate of CPM for unilateral breast cancer increased from 39 to 207 per 1000 mastectomies between 1998 and 2008, representing about 20 000 patients in 2008. In contrast, the rate of bilateral prophylactic mastectomy increased from 5 to 18 per 1000 mastectomies during the same period.[2]

Many more women may consider CPM than receive it, and research suggests that interest is increasing among patients fueled by word of mouth, the focus of attention in the media on high-profile patients, and the use of more sensitive imaging tests that may increase the uncertainty about the extent of local spread of disease.[3] Ironically, the rate of bilateral mastectomy may be increasing[4] despite the decreasing risk of contralateral primary breast cancer in patients—largely the result of the increased use of systemic therapies.[5] Systemic therapy markedly reduces the risk of second primary breast cancers and also improves survival in both estrogen receptor (ER)–positive and ER-negative breast cancer patients.

The likelihood of a second primary breast cancer is much lower than the risk of distant metastases or death except in a small subset of women who are at particularly high risk, such as those with *BRCA* mutations. For example, a Surveillance, Epidemiology, and End Results study of 107 106 women treated for unilateral breast cancer between 1998 and 2003 showed that the cumulative incidence of contralateral breast cancer at 7 years in patients younger than 50 years with ER-positive stage I and II cancers was 0.5% compared with a breast cancer–specific mortality of 6.8%. For ER-negative women, these figures were 0.9% and 13.5%.[6] Thus, the removal of the unaffected breast does not confer additional benefit with regard to distant disease-free survival in patients at average risk of a second primary breast cancer. For this reason, current guidelines support consideration of removal of the unaffected breast to reduce the risk of a second breast cancer and improve the overall likelihood of distant disease-free survival in patients who are at high risk of second primary (ie, *BRCA*-positive) breast cancer.

However, few women who undergo CPM are in the recognized high-risk groups. In the common scenario of a woman at average risk of a second primary breast cancer, removal of the unaffected breast is primarily moti-

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vated by the desire of patients to reduce the fear of recurrence, if not the actual likelihood. Many women who undergo CPM are candidates for a breast-conserving approach. Thus, the decision to undergo CPM (with most opting for breast reconstruction) vs lumpectomy entails a much larger, more morbid surgery with much longer recovery time and potentially more long-term issues with cosmesis and chest symptoms. Although patients who undergo CPM may report low levels of fear of recurrence, surgeons are increasingly uncomfortable with performing more extensive operations that may be associated with more morbidity and complications solely for this reason.

Although patients may be clear about their choice of CPM, surgeons may not be as clear about why they perform it. Surgeons may rationalize their willingness to perform CPM because they are convinced that the operation may improve long-term quality of life. However, this supposition cannot be tested because patients cannot be randomized to the surgery options and people adapt or accommodate over time to the decisions they have made. Alternatively, surgeons may not personally agree with the decision by women at average risk to undergo CPM but acquiesce because they face potential adverse consequences in their practice. In the context of nearly universal insurance coverage for the procedure independent of the level of cancer risk, a surgeon who refuses to accommodate a patient's desire for CPM could face the loss of that patient to another surgeon who is willing to perform the procedure and the potential loss of future practice volume if failure to accede to patients' desire is made public, such as through social media. In addition, in an atmosphere of patient-centered care, refusing a patient request for CPM is difficult.

Patients undergoing surgery for cancer may be particularly prone to overtreatment because of the general heuristic that in terms of surgery, "bigger is better." The CPM issue underscores the need for physicians to address peace of mind in ways that do not put patients at risk of unnecessary morbidity and burden of treatment. First, surgeons need to ensure that their patients fully understand the risks and benefits of more aggressive surgical treatment in the context of increasing emphasis on systemic therapy for cancer. A recent study of patients with breast cancer who received CPM suggested that patients overestimate the risk of a second primary cancer, overestimate the benefits of CPM in terms of disease-free distant survival, and may underestimate the adverse effects of the more aggressive surgical treatment (Shoshana M. Rosenberg, ScD, MPH, unpublished data, July 2013). This means more attention to the net benefit of the treatment option, which can be increasingly understood because of an extensive database on the incidence of second primary breast cancers and a growing evidence base on who is at higher risk. Second, patients should be encouraged to deliberate longer and to more directly consider the powerful cognitive and emotional reactions that may favor the most aggressive treatment approaches. Third, the case of CPM reinforces the need to address practice incentives that may foster overtreatment in cancer. The availability of insurance coverage for CPM regardless of risk of second primary breast cancer reinforces the notion that the procedure is medically indicated and may also facilitate patient self-referral to a surgeon who is more willing to perform it. Thus, payment reform, such as limiting insurance coverage to patients with clinical indications for the surgery, may be necessary to reduce factors that may affect efforts by any individual surgeon to address overtreatment. Although CPM remains a small component of the overall treatment plan in breast cancer, it underscores a larger challenge for surgeons to counter the mindset among patents and some clinicians that bigger is better in breast cancer surgery.

ARTICLE INFORMATION

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