

### Integrative Physician's Perspective

Since the patient in question in this tumor board was seen at the Block Center for Integrative Cancer Care, I am quite familiar with her case. As is clear from a reading of the case and its responses, the major treatment problem that this patient faces is the peculiar challenges to a coherent diagnosis posed by her unusual presentation—a right sentinel node positive for malignancy, with no malignancy in the right breast, and a malignancy in the left breast that may represent a recurrence or a second primary. Our conclusion about this patient, after consultation with several specialists, was that there were simply too many plausible interpretations to offer any consensus on whether this was a case of recurrence or new primary. The participants in this tumor board offer further interesting perspectives on this case.

### The Diagnostic Question

Barry Boyd offers a particularly interesting interpretation of the positive sentinel lymph node, positing that it represents nodal spread from the left breast, in accord with its uncommon apocrine features, similar to the histology of the left breast tumor. He suggests that lymphatic drainage patterns disrupted by previous lymph node dissection and chest wall radiation may have resulted in spread to the contralateral axilla, rather than the ipsilateral.

Arica Hirsch, on the other hand, sees the positive sentinel node as unrelated to the left breast cancer, because of the normally different lymphatic drainage patterns, and suggests that an occult primary in the right breast is the source. She provides important criteria for differential diagnosis of recurrence and new primaries by assessing whether a new tumor is located within the same quadrant as the original or within 3 cm of the tumor bed, as well as looking at the histological subtype. Since location information is not present for the first tumor, it is not possible to make an accurate assessment on this question.

Physicians from the Carol Franc Buck Breast Care Center at the University of California at San Francisco conclude that the patient's situation most likely represents a concurrent local and distant recurrence; they raise the possibility of recutting additional sections to examine from the right breast to look for an occult primary, and also the possibility of doing a complete axillary dissection and chemotherapy. They point out the somewhat unusual nature of the surgical tactic of doing a right sentinel node biopsy with the right prophylactic mastectomy, in the absence of any sign of right breast cancer.

### Medical Oncology

Dr. Boyd is a far-sighted integrative cancer specialist, whose considerable expertise in medical oncology is complemented with a keen understanding of questions of cancer etiology. His medical oncology discussion is particularly readable because it proceeds with a consciousness of the historical context of medical oncology practice at the time of the patient's original diagnosis and treatment that gives some perspective to her story. His discussion of the possible altered patterns of lymphatic drainage cannot, of course, be confirmed at this time but represents a very intriguing approach to the small number of patients who have the contralateral axilla as the only site of nodal spread. He also points out her increased risk from having a negative progesterone receptor status, which may indicate the use of chemotherapy using an anthracycline-paclitaxel regimen for this patient.

Dr. Boyd also discusses 2 other particularly interesting issues. Fasting insulin level is emerging as a prognostic factor for breast cancer, based in part on the findings of Goodwin and colleagues. Boyd suggests that the relationship of insulin to cancer may underlie many of the benefits of integrative care. Another intriguing point he brings up is the problems raised by light at night (LAN), a possible problem for this patient due to her habit of falling asleep with the television on in her room. Evidence implicating LAN in the etiology of cancer through suppression of the nighttime surge in melatonin is accumulating. The recommendation that the patient improve her sleep habits to optimize melatonin production is one that may become more common in the future, as the science behind risks of LAN improves.

### Radiation Oncology

Dr. Arica Hirsch discusses in detail considerations of the patient's initial radiological findings, and their impact on both the original decision in favor of breast conservation and what they might have to say about whether the new cancer in the left breast represents a recurrence or a new primary. Clusters of microcalcifications in more than one quadrant of the breast would indicate possible multifocality in the original cancer, placing the new radiological/surgical findings in a different light. Hirsch also summarizes findings on the use of radiation therapy in the breast conservation setting, and its potential acute and late side effects. Her review indicates that the original "sandwich" pattern for chemotherapy and radiation after lumpectomy, used in this patient, was an acceptable technique.

Most encouraging among Hirsch's comments are the data indicating the improved prognosis of patients

who present with local recurrences more than 5 years from initial diagnosis. The long interval between the initial and the second breast cancers, though, increases the possibility that the findings in the left breast represent a new primary. This is similarly encouraging, since patients with second primaries are found to have improved prognosis relative to those with local recurrences. As far as treatment in the current situation, Hirsch does not see value in radiation treatment at this time but suggests that Arimidex and incorporation of a healthier lifestyle, including lowering of fat intake and exercise, may be of most benefit.

### Naturopathic Medicine

Naturopathic approaches, as we have seen before in the pages of this journal, often focus on the factors that lead up to the diagnosis of cancer as a means of analyzing potential treatment strategies—a difference from allopathic medicine, which tends to place more emphasis on the patient's immediate situation, not using the past to shape therapeutic interventions. Thus, Judy Fulop analyzes this patient's medical history in some detail. She raises an interesting question at the outset: in spite of the suitability of breast conservation in this patient based on common therapeutic criteria, would a mastectomy at the time of original diagnosis have prevented the current situation? It is impossible to know. Fulop, though, points out several features of the patient's lifestyle in the intervening years that may have been cancer-promoting at a systemic level, raising the possibility that attention to these factors could help develop guidance on lifestyle alterations for other patients treated with breast conservation who are in danger of recurrent cancers.

In addition to concerns about LAN similar to those raised by Boyd, Fulop raises concerns about the patient's possible exposure to tumor-promoting levels of pesticides on the golf course, a favored recreational site for this patient. A possible link is certainly not proven, but the potential for an effect is enough to give one pause. Other possible environmental exposures include occupational exposure to radiation. These exposures were not, interestingly, mentioned in the patient's conventional medical history, but they are ones that the naturopathic approach perceives from analysis of the patient's life and interests. Fulop points out the development of vitiligo after radiation therapy, and its potential linkage both to autoimmune thyroid disease (the patient's history of Hashimoto's thyroiditis being of interest in this connection) and the history of multiple collagen defects in the patient's family. She recommends watching the patient closely for autoimmune and inflammatory markers.

Fulop points out the role of the mitochondria as regulators of programmed cell death. Mitochondrial dysfunction is one of the very common features of cancer cells. Although information on the role that mitochondria play in cancer is nascent, I predict that the functioning of the mitochondria in cancer will be one of the next areas of major research and clinical interest.

Many recommendations are made in the naturopathic analysis of changes in diet and lifestyle that the patient might adopt, as well as recommendations for supplements that could help overcome some of the problems that the patient faces, including the use of cofactors of phase I and II liver detoxification for this patient who may rather continue a favorite sport (and exercise modality) even in the face of potential pesticide exposure. Fulop carefully provides supplement and nutritional recommendations that target the many biological questions she raises and explores in her discussion of the factors that may have raised this patient's cancer recurrence risk in the years since her initial diagnosis.

### Mind—Body—Spirit Medicine

Lewis Mehl-Madrona also pays considerable attention to the years preceding both the current recurrence situation and the 10 years before this patient's original cancer diagnosis. However, the focus of his explorations could not be more different from that of Judy Fulop—or from that of the other conventional practitioners in this tumor board. With a history of 27 years of work as an ER physician and a concomitant history of exploration of the medicinal traditions of his personal Native American heritage since his medical school days, Mehl-Madrona gives a most unusual perspective to this tumor board.

It is worth noting at the outset of this discussion that some of what he says may at first glance appear a bit outrageous in the context of conventional medicine (ie, talking to uterine fibroids, looking to the patient's social community as a cause of disease). These conventionally unusual approaches are, however, perfectly within the shamanic traditions of Native American healing, and the healing modalities of many other cultures that have a basically shamanic approach to medicine. Healers in the shamanic traditions regularly consult spirits about diagnostic questions, perform ritual healing ceremonies, and commune with the soul of the patient, even in the contexts in which they are also administering herbal medicines (which we usually view from the Western analytical posture of their active chemical components instead of their accompanying prayers). Seeing this approach undertaken by an MD, adopted as part of his cultural heritage but applied in a

conventional medicine context, was actually a refreshing contribution.

Mehl-Madrona's approach also incorporates much that is typical of other traditional healing cultures besides the Native American. I assume this arises from a recognition of the underlying similarities of these many traditions. This is true not only in the details of his intervention, which includes such practices from other traditions as acupuncture and reiki, but also in the underlying search for disharmony or imbalance. His discussion of imbalances in the etiology of cancer is particularly interesting, and probably more palatable than many such discussions, since it comes from a physician trained in conventional as well as traditional medicine. His traditional approach to the patient's history is deeply probing, perhaps a little too deeply probing for comfort. One wonders whether a challenge to the patient's comfort level is, in fact, part of the strategy of the search for disharmonies in the patient's life that might provide routes for future healing (or curing, in the traditional perspective). I must admit my own discomfort with the questions about what benefit the patient might gain from having breast cancer. This is actually the issue of "secondary gains" of illness, and although there are some situations in which exploration of this topic is quite appropriate, there are many where such suggestions can be unproductive, particularly with patients who are in fear of their lives from dangerous (and poorly understood) malignancies.

Perhaps in the context of Mehl-Madrona's overall treatment, the issue of secondary gains makes more sense, or is more compassionately applied than it might be in the Western psychological approach. The entire issue of context is interesting in considering the Native American approach discussed. Obviously, the use of techniques such as soul retrieval, vision quests, and talking to fibroids is quite easily rationalized with patients who are Native American themselves and expect these situations in their traditional healing. Taking a non-Native person through these techniques is another question altogether. People who come to Mehl-Madrona clearly do so with the understanding that these are the techniques he will be using, and undoubtedly with some attraction to these techniques. There is, after all, quite a bit of interest in Native American healing, sweat lodges, and other Native American traditions in the wider culture today (many European Americans under the age of 35 seem to be more knowledgeable about these than their parents). A more sensitive issue of context might arise, though, in discussions of religion. Whether or not intentional, Mehl-Madrona's language leaves one with the feeling that he finds this patient's different approach to or lack of spirituality or religion

disturbing, despite his discussion of adapting to patients who are uncomfortable with personalizing the divine. It would be interesting to see some discussion about how the Native American traditions might interact with those who come from the Judeo-Christian or other major religious traditions, in addition to the description of ways to work with this patient who apparently lacks a strong religious affiliation.

Finally, one other area in which Mehl-Madrona's approach is perfectly consonant with the standards of care in traditional healing systems is in the use of quiet and rest as a therapy in itself. The parallel of doing a retreat, which comprises a strong component of rest, with Japanese "Quiet" therapies, is specifically drawn. It is possible that for a patient with a strong drive for achievement, such as this patient manifests, a time of rest may open the way for a deeper consideration of how to implement a strong and healthful regimen of self-care that may involve, among other things, rest, instead of light, at night.

### **Osher Center and Buck Center**

The operational model of the Osher Center for Integrative Medicine is one that truly responds to the demands of integrative care. The theory underlying integrative care is that the multiple approaches to a patient's health will interact and synergistically produce a result that improves both psychosocial well-being and treatment outcomes. These strategic interactions take place most easily in situations where the various practitioners administering different treatments are able to communicate regularly and in detail with each other. At the Osher Center, weekly tumor board meetings at which each patient's case is discussed by all relevant practitioners serve the purpose of developing coherent recommendations. Patients will have met with surgeons or medical oncologists prior to tumor board meetings, and information from these consultations will be available to guide the choices of other integrative techniques.

Meetings of this type have been mentioned in other Tumor Board contributions in previous issues. Structuring staff times in integrative centers to make sure that these regular meetings take place is one of the major administrative challenges of integrative care. Hospitals regularly provide tumor board meetings for oncology staff. Outpatient clinics, particularly those that may have part-time practitioners for some integrative techniques, must also develop systems of face-to-face, as well as electronic and paper, communications among staff members that allow for both sufficient clinical time with patients and hour-by-hour interactivity as the patient passes from one practitioner to the next. Addressing these challenges, as well as

those posed by the problems of reimbursement for medical practices that are not entirely standard, takes considerable thought and planning.

The hospital setting and the integrative care outpatient clinic are 2 of the models that are typically used in delivering complementary medicine. The other way of “integrating” care is the “do-it-yourself” model, in which the patient who lives far from an integrative center nevertheless assembles a team of practitioners that may include a nutritionist, an acupuncturist, a massage therapist, or other types of healers—all located several miles away from each other! In this situation, the development of communication among practitioners mounts in difficulty, even if one of the medical practitioners attempts to coordinate care among the different treatment types. This may result in fragmented care for the patient, perhaps increasing the potential for negative, rather than positive, interactions. Since integrative centers are a relatively new concept, many patients find themselves in this situation, and we may expect this to continue.

A most interesting quote from Gray et al to the effect that cancer patients think that their doctors “should be more interested in, more informed about, and more willing to discuss unconventional therapies,”<sup>1</sup> shows the importance of the ability of physicians to interact positively with complementary or traditional medicine practitioners. The location of the Osher Center within a university setting is of potentially large importance, since the university is usually the training ground of new physicians. Doctors in training at UCSF will be able to see the Osher Center in operation, and will, one hopes, become more proficient in meeting the needs that cancer patients express for physicians interested in unconventional therapies.

The mind-body-spirit contribution begins with asking the patient to tell her cancer story. The opportunity to tell one’s story in the broadest way possible was one of the original goals of the medical history, now much restricted to biological issues. The healing dimension of telling your story is widely recognized, however, and each opportunity to discuss it with sensitive listeners can be an occasion for growth in self-understanding. The mind-body-spirit team of the Osher Center perspicaciously recognizes that the patient in question may not be entirely comfortable with the emotionally open, even emotionally charged, support group format. Her typical emotional style has been one of controlling feelings, and rather than breaking that pattern, the Osher group recognizes that it may contain an element of denial that is important to the patient, and that it can be worked with productively in other ways to enhance coping.

The traditional Chinese medicine team is able to develop a substantial insight into this patient’s underlying deficiency syndromes even using only the conventional medicine history. Elements such as the presence of thyroid disease, hives, and fibroids help to provide diagnostic clues and structure treatment rationales in both acupuncture and herbal medicine.

The nutrition team again emphasizes the relationship of glycemia, insulin, IGF-1, and cancer growth stressed by Boyd in his tumor board. It is interesting to see scientific and academic support begin to grow for the long-time alternative medicine recommendation that patients should stay away from refined sugar and refined flour as a real rationale emerges for these requests. The UCSF team has covered all the major elements of the integrative diet as they are emerging in this series of articles. They provide some particularly interesting background on the question of ratios of 16 $\alpha$ -hydroxysterone and 2-hydroxysterone, respectively, more and less stimulating of the estrogen receptor. Both cruciferous vegetables and, in animal studies, lowered fat diets appear to be able to improve this ratio. Valuable information on supplements to modify the arachidonic acid cascade is also provided. Seeing these recommendations coming from a team working in a university setting was, I must admit, quite refreshing and commendable.

The gynecological group provided some especially practical information for what is a very common problem among women in their early- to mid-50s, the problem of nocturia due to hyperactive bladder, as well as discussing means of addressing many other menopausal symptoms that this patient, and others of her age, may be experiencing. The patient’s caffeine consumption is not discussed in the history; a trial of decreasing caffeine intake is another intervention that many women find useful in calming the hyperactive bladder, certainly one that fits into an integrative regimen.

The massage therapist in the Osher group is a nurse as well. Nurses are accustomed to dealing with the various physical needs of individual postsurgical patients, and clinical massage therapists are accustomed to individualizing their interventions to such patients as well. This particular massage therapist, however, appears to be particularly astute and compassionate at an emotional level as well, bringing up possible body image disturbances and recognizing the need for the patient to feel cared for, and to feel comfortable and competent in caring for herself. It is obvious that massage and yoga at this center are about more than kneading tissue and stretching muscles. They clearly contribute to Lerner’s “healing quartet” at both the physical level and the spiritual level, with a true

potential for improving both functional status and quality of life, and thus, in the end, outcomes of treatment.

### Reference

1. Gray RE, Greenberg M, Fitch M et al. Perspectives of cancer survivors interested in unconventional therapies. *J. Psychosoc Oncol.* 1997; 15(3/4):149-171.

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