

The Hartford Courant
1 / 1 - Sunday, October 2, 2011

CUSTOMIZED CARE: NEW OPTIONS
MORE THAN EVER, DOCTORS CAN TAILOR TREATMENT TO THE INDIVIDUAL
'EVERY CANCER IS UNIQUE'

Edition: STATEWIDE
Section: SPECIAL
Page: I1
Source: LORETTA WALDMAN Special To The Courant

It's a moment breast cancer survivors recall with photographic clarity. The details of where they were, what they were wearing, even the weather on the day they got that jolting diagnosis, are forever frozen in their minds.

For Leslie Wolfson, that moment was June 18, 2001. She was sitting at her desk at the University of Connecticut Alumni Office when her phone rang.

"Are you at work right now?" she remembers Dr. Elizabeth Brady asking her. "Where is your husband? Call your husband. I need both of you to come meet me here."

Less than 24 hours earlier, Brady, a surgeon with Connecticut Surgical Group, had performed several biopsies on Wolfson's right breast. Then 41, Wolfson had come to Brady's office by way of her gynecologist after waking up one morning with that breast hugely swollen, red and throbbing with pain. Unwilling to go along with her gynecologist's wait-and-see recommendation, Wolfson's husband, Rob, marched from that doctor's office to Brady's nearby, and insisted his wife be given an appointment.

Now, Wolfson was the insistent one.

"What is it? I need to know," she demanded.

"I need you to get here" is all Brady would say.

Wolfson let out a scream and remembers only snippets of what happened after that. A co-worker drove her to Hartford Hospital. When she arrived, her husband was waiting.

The news was not good.

The clinical exam suggested inflammatory breast cancer, an aggressive form of the disease in which the cancer cells invade the skin and block the skin's lymphatic channels. The mass in Wolfson's breast was 8 centimeters, and she had an enlarged lymph node in her right armpit. Wolfson also tested positive for HER2, a protein that when present is a sign of rapidly growing cancer.

Brady and the team of doctors working with her had to sift through those and other factors specific to Wolfson's case to come up with the most effective treatment.

The neoadjuvant, or preoperative, chemotherapy recommended by Wolfson's oncologist, Dr. Patricia DeFusco, is a standard approach taken with inflammatory breast cancer. It has a 70 percent to 90 percent chance of shrinking the tumor and a 20 percent chance of having such a significant response that no cancer would be found by the time Wolfson had her surgery.

But instead of using the standard drugs -- Adriamycin and Cytosan followed by Taxol -- DeFusco opted to try Adriamycin and Taxotere, another drug combination then being studied in

clinical trials, that when used together, rather than one after the other, would result in a more rapid and significant reduction in Wolfson's cancer.

The strategy worked. By mid-September 2001, Wolfson's cancer had been reduced sufficiently for her to undergo surgery to remove both of her breasts and, once recovered, undergo a second round of chemotherapy.

Ten years later, Wolfson is happy to have had as many birthdays and to have beaten the odds.

TEAM APPROACH

The team approach doctors took to treat Wolfson also lives on.

Known as the Partnership for Breast Care, it was established by Hartford Hospital 12 years ago. Now such multidisciplinary collaborations are rapidly becoming the nationwide norm in the treatment of breast and other types of cancer, according to Dr. Andrew Salner, a radiation oncologist and director of Hartford Hospital's Helen and Harry Gray Cancer Center.

So, too, is the integrated approach that looks at the patient as a whole and not just in relation to their cancer. And with new drugs, surgical techniques and expanding insight into the biology of cancer and its varied expressions in each patient, medical professionals are able to target and tailor treatment as never before.

"Every cancer is unique and has its own biologic and molecular footprint or stamp," Salner said. "Each patient is unique, and factors such as other medical conditions, age at diagnosis, physiology, psycho-social milieu -- all those factors play into it and how you make a series of recommendations. All that has to be taken into consideration in terms of designing a treatment plan."

Evidence suggests this model, which also incorporates education, screening, patient participation and survivor support, is producing results. From 1990 to 2006, the death rate from breast cancer among women in the United States dropped by 29 percent, according to the American Cancer Society. And from 1999 to 2006, the incidence rate of breast cancer among women in the U.S. decreased by about 2 percent a year, the statistics show.

Herceptin is among the better known targeted drugs now available to cancer doctors, and DeFusco said it would be used today as part of a treatment regimen for a patient with Wolfson's diagnosis. This newer agent, an immune targeted therapy, works by attaching itself to the HER2 receptors on the surface of the breast cancer cells and blocking them from receiving growth signals. In addition to blocking HER2 receptors, Herceptin also can help fight breast cancer by alerting the immune system to destroy cancer cells onto which it is attached.

Another of these drugs, Avastin, targets the epidermal growth factor receptor, thus interfering with the blood vessels that supply tumors with necessary nutrients. Yet another drug, Tykerb, is being used in combination with other chemotherapy drugs to treat advanced, HER2-positive breast cancer that has stopped responding to Herceptin and other drugs.

WEEKLY CONFERENCES

Every Tuesday, about 60 medical professionals gather in a conference room on the third floor of Hartford Hospital's Bliss Building to pore over patient case files and discuss treatment options. Besides the core of specialists treating the breast cancer patient -- typically a surgeon, oncologist and radiation oncologist -- plastic surgeons, geneticists, pathologists, nurses, social workers and research staff also attend these Breast Conferences, as the meetings are known.

Without revealing the identity of the patient, the group discusses the details of each case and available treatments. National guidelines for each type and stage of cancer are reviewed.

Research staff provide updates on the latest studies or clinical trials in the pipeline.

"It's highly useful in terms of fashioning our thinking," Salner said. "Patients are hugely

grateful."

Although patients do not participate in the conferences, including them in the discussion about treatment is vital and helps restore the control and dignity cancer treatment can take away, Salner said.

Every breast cancer patient at Hartford Hospital now receives a four-part treatment summary consolidating the myriad details of their case. The record includes the exact procedure performed, a pathology report and dosages of chemotherapy drugs. Also contained in the summary is a monitoring plan and information on what to do in case of a recurrence. A wellness plan is the fourth element of the summary and provides patients with information on nutrition, exercise and other factors shown to reduce the risk of recurrence and promote better overall health.

A SEISMIC SHIFT

The shift these innovations represent is seismic.

Up until the 1950s, cancer was considered a purely surgical disease, said Dr. Helaine Bertsch, a radiation oncologist at Hartford Hospital. The approach for women diagnosed with breast cancer was a radical, one-size-fits-all remedy designed to eradicate the cancer at all cost.

That attitude is chillingly summed up in a best-selling book, "The Emperor of All Maladies: A Biography of Cancer," by Siddhartha Mukherjee, a cancer physician and researcher. The book, which won a Pulitzer Prize for general nonfiction this year, quotes Dr. Cushman Haagensen, a powerful, outspoken surgeon of the period, writing in 1956: "In my own surgical attack on carcinoma of the breast, I have followed a fundamental principle that the disease, even in its early state, is such a formidable enemy that it is my duty to carry out as radical an operation as the ... anatomy permits."

The impact on patients was physically and emotionally devastating.

It was not until the advent of the women's movement in the 1970s that things began to change in a significant way. The lumpectomy, a breast-conserving procedure in which only the cancerous tumor and affected margins of tissue are removed, emerged as a new option for women.

More recently, the introduction of the sentinel node biopsy, a procedure used to detect the spread of cancer using only a few key lymph nodes instead of an entire line, has spared women a host of debilitating, lifelong side effects.

And the emphasis on self-exam and annual mammograms means doctors are catching breast cancer at its earliest stages more often. Even in cases of recurrence, that can make a dramatic difference in the outcome and the patient's quality of life after treatment, Bertsch said.

SMALL, LOCALIZED DOSES

Bertsch notes the case of a woman treated at Gray Cancer Center in July. Initially treated for cancer in her right breast in 1997, the woman detected another lump in the same breast and had a bilateral MRI that found cancer in the left one as well.

The woman did not want a mastectomy and because her cancer had been detected so early, she was a good candidate for a different option. Brachytherapy -- "brachy" is the Latin term for "short," as in a short distance -- uses a balloon catheter to deliver small, localized doses of high radiation to the site of the tumor.

After inserting the catheter into the patient, the surgical team activates a machine that delivers a radioactive pellet, smaller than a grain of rice, to the site. The seed never directly touches tissue and minimizes exposure of healthy organs to the radiation. Patients receive the treatment twice a day for five days and are done.

"This was early enough that it had not shown up in a mammogram," Bertsch said of the tumor. "And you are catching it at Stage Zero on the other side."

Another option now available to some women is Oncogene DX, a once controversial but now widely used test to predict the likelihood cancer will recur and/or benefit from chemotherapy. The test only works for women with estrogen-positive and node-negative cancers -- meaning that estrogen played a role in the growth of the cancer and the cancer has not spread to the lymph nodes -- but with more than half of the breast cancer cases diagnosed in the U.S. falling into that category, the potential benefit is significant.

TUMOR SAMPLES

Salner predicts such individualized, evidence-based treatment will evolve still further in the future. And with the development of biospecimen databases, that day may not be far off. Hartford Hospital is one of roughly 20 sites involved in an initiative known as Total Cancer Care at Moffitt Cancer Center in Tampa, Fla., where the collection of tumor samples now totals about 30,000. Participating patients donate clinical information and excess samples of their tumors. The data are stored and analyzed by researchers for biological or clinical elements that may advance the care and treatment of cancer. If new information is discovered that would impact their care, doctors may contact patients again.

But the notion of individualized care doesn't stop with treatment, Salner says. Satellite treatment facilities, such as a newly opened branch of Gray Cancer Center in Avon, help reduce stress by keeping patients close to home. Patient navigators steer patients to services ranging from support groups to classes on how to look your best during treatment. Others assist patients without family support and those who don't speak English.

More hospitals are taking a coordinated, multidisciplinary approach, Salner said, because the evidence suggests that doing so yields positive results and provides patients with a better experience.

Cure rates for cancer overall are increasing, he said. Sixty-six percent of all cancer patients diagnosed in 2011 are expected to live five years without a recurrence, as opposed to 50 percent 20 years ago. Mortality is down by 30 percent in the last 15 years.

"So the news is good in terms of the effectiveness of treatments and what we as doctors and cancer patients can do," Salner said. "But research is important, support systems are important and outreach. It's not just all about treatment."