MERCY CANCER INSTITUTE OF GREATER SACRAMENTO

Mercy
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PATHWAYS IN CANCER

Clinical insight and analysis in advanced cancer care

Welcome to Pathways in Cancer

Costanzo A. Di Perna, MD

This issue of *Pathways in Cancer* truly celebrates a consolidative effort from the Sisters of Mercy to simplify and synchronize oncologic care in Sacramento. Cancer care has classically been known to be disjointed, complex and confusing for the patient. The new Mercy Cancer Center, a unique comprehensive cancer care facility, is already taking care of patients. For the first time ever in the Sacramento region, patients with cancer can be diagnosed and treated in a state-of-the-art, aesthetically pleasing building in East Sacramento. Here, the simplicity and organization of cancer care will be truly appreciated by the anxious patient.

The Mercy Cancer Institute approach to cancer care will be systematic, encompassing and research-oriented, with the sole focus on quality of care. I am sure the reader may be wondering, what is the Mercy Cancer Institute's long-term plan for cancer care in the Sacramento region?

We are already beginning to offer a service-line approach to cancer. For example, breast cancer, which will be treated in its entirety at the Mercy Cancer Institute, will be evaluated, data-based and systematized throughout the Dignity Health (formerly Catholic Healthcare West) service area. Any breast cancer case that goes through our Dignity Health hospitals and Mercy Cancer Institute will be assessed for quality and standard of care. Our plan is to build a database over the next 10 years that keeps track of all breast cancers (and any cancer for that matter) that have been treated through the Mercy Cancer Institute of Greater Sacramento. We can make our patient care and results transparent, showing our achievements, quality of care and potential improvements needed. When we as healthcare providers treat a cancer patient, we don't operate in a vacuum, but rather we operate in sync with national and international guidelines. Gone are the vacuum days!

To expound on another example, Tumor Board Teleconferencing will soon provide the platform for lung masses of a cancer patient in Woodland to be assessed by Mercy Cancer Institute doctors throughout the Dignity Health hospitals in attendance—allowing a broad, educated standard-of-care discussion to ensue, all for the glory of quality patient care. Once again, the data we will accumulate over the next 10 years will synchronize Sacramento cancer care and guarantee a checks-and-balances system promoting standard-of-care NCI guidelines.

If a Grass Valley 18-year-old male with a humerus mass is presented through our upcoming Mercy Cancer Institute teleconferenced Orthopedic Oncology Board led by Dr. Tamurian, I can assure you this ease of access will be appreciated by many physicians and especially the patient.

When Dr. Jakobsen and Dr. Wandel help lead the breast conference through Mercy Cancer Institute teleconferencing of the Breast Tumor Board, breast cancer care will be standardized throughout the region. In this setting, newly diagnosed breast cancer in an unfortunate 39-year-old female in Folsom can be presented by the Folsom physician, teleconferenced throughout Dignity Health hospitals and moderated by Dr. Jakobsen and Dr. Wandel. Both leading specialists, in breast cancer surgery and reconstruction respectively, can help the Folsom physician through a cyber-network to appropriately resect and reconstruct this patient's breast. Wherever surgery is performed, this patient's breast

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High Tech and High Touch at the New Mercy Cancer Center

John M. Stevenson, MD

The specialty of radiation oncology is a unique blend of high tech equipment, imaging, physics and the art and science of medicine. The new radiation oncology department at the Mercy Cancer Center was developed to provide patients with the latest technology in a nurturing and caring environment, coupled with the convenience of a comprehensive cancer center, all under one roof.

The technology at the Mercy Cancer Center is truly second to none. The linear accelerator is a Varian Trilogy with rapid arc, featuring respiratory gating and the ability to deliver stereotactic treatment to any part of the body. Intensity modulated and image-guided radiation therapy (IMRT/IGRT) will be utilized. Physics and dosimetry services are provided in-house by board certified personnel. Our therapy personnel are board certified and have many years of experience in their field. Our treatment planning scanner is a wide bore model,

The linear accelerator at the Mercy Cancer Center

ideal for the comfort and convenience of complex setups such as breast cancer treatment. The Mercy Imaging Center, which operates alongside the Mercy Cancer Center, provides all imaging modalities, including PET CT, MRI, CT, ultrasound, mammography and bone density screening. Diagnostic radiologists are available on-site for consultation. The imaging and therapy technology on-site is integrated electronically with the Dignity Health system to allow for rapid comparison of images. Laboratory facilities are likewise available on-site for the convenience of oncology patients, truly affording a "one-stop shop" experience.

In addition to radiation oncologists, the art and science of medicine is collaboratively practiced by board certified medical oncologists, thoracic and surgical oncologists, urologists, neurosurgeons and others—all dedicated to the care of the patient. Teleconferencing facilities are available at the center to allow for consultation and collaboration with referring physicians and other specialists within the Dignity Health system and beyond. Case conferences and tumor boards will be held on a regular basis to ensure that patients receive the latest in cancer treatment. Clinical trials will be available with on-site support, as will genetic counseling.

> "The technology at the Mercy Cancer Center is truly second to none."

Social services will be a major priority for the center, with on-site social workers available for consultation with all patients. Support groups of all types will be provided and coordinated through the Mercy Cancer Center. Holistic activities available to patients will include tai chi, massage therapy, art therapy, yoga and more. The location, architecture and design of the center were carefully planned and coordinated to maximize the healing and nurturing "feel." Convenience for the patient was a top priority, with simple things such as an abundance of parking provided to ensure a positive experience for all.

The staff of the center was assembled with one goal in mind—to provide the highest level of service to all referred patients. Our staff is truly second to none in this regard, which is so important for the patient receiving care. At a time when your patients are in need of support, guidance and delivery of care, the radiation oncology department at the Mercy Cancer Center will be there to provide convenient state-of-the-art treatment in a compassionate comprehensive setting. ■

Advanced Adenocarcinoma of the Lung

Ram Lalchandani, MD

Lung cancer is the most common cancer in the United States and worldwide. It is estimated that 221,000 Americans will be diagnosed with lung cancer and 157,000 will die of the disease. Approximately 56% will present with advanced disease according to SEER Cancer Statistics, with a five-year survival of 4% and median survival in the range of four to six months. Some patients with good performance status, however, can benefit from treatment and live for a much longer period of time. The following case illustrates some of the issues in the care of these patients.

MP is a 70-year-old woman—never a smoker—who presented in October 2009 with a several year history of right upper back pain. A CT of chest showed a 3.3 cm spiculated mass in the left lower lobe with diffuse miliary mottling of both lungs and a 3.7 cm low density focus in the liver that was suspicious for metastatic disease. A fine-needle aspiration biopsy showed adenocarcinoma. The specimen was not sufficient for EGFR testing. She also had noted some weakness of her legs. She had no weight loss. Brain MRI showed a small, 0.6 cm, enhancing lesion on the right parietal lobe, of uncertain significance. A Doppler of the left leg was negative. She was started on chemotherapy with carboplatin and pemetrexed, but developed increasing weakness of her legs. MRI scan of the cervical, thoracic and lumbar spine showed metastatic disease at T2 with retropulsion of soft tissue into the central spinal canal causing mass effect.

She was hospitalized and underwent T2 corpectomy and laminectomy, bilateral T2 costotransversectomy, left T3 costotransversectomy, C6-T4 arthrodesis and instrumentation with cancellous allograft and open reduction of spinal deformity. Anterior T1-T3 arthrodesis was performed using expandable cage with demineralized bone matrix. EGFR mutation testing was done on the corpectomy specimens, however, it could not be completed for technical reasons. She had physical therapy and resumed chemotherapy in January 2010. A PET scan showed partial response. Radiation therapy was given from C7 through T4 in May 2010, complicated by some odynophagia and probable esophagitis, which subsequently improved.

She was treated with zoledronic acid, and chemotherapy was continued until August 2010 when PET scan suggested some progression of her disease at which time her regimen was changed to Erlotinib 150 mg a day. She did develop a rash related to that requiring a dose reduction to 100 mg a day. For her rash, Doxycycline and topical corticosteroids were prescribed. She had myalgias with the zoledronic acid and that was changed to pamidronate. When last seen in December 2011, clinically and by PET scan, she was in continued partial remission with minimal pain and ambulating with use of a cane.

> “ Patients with EGFR mutations have response rates to Erlotinib that are upwards of 50%. These agents have their unique side effects, such as in this case with the rash, requiring dose reduction.”

This case illustrates the beneficial role of neurosurgical intervention in some patients with spinal cord compression due to malignant disease. In the past, there has been a debate about the duration of chemotherapy, but now there is consensus that maintenance therapy with cytotoxic, targeted or biologic agents is helpful. Testing for EGFR receptor expression and mutation, as well as mutations of ALK, K-RAS oncogenes can be helpful in selecting patients more likely to respond to targeted agents. In patients with ALK mutation, response rates with a kinase inhibitor, Crizotinib, are in the range of 50-60%. Patients with EGFR mutations have response rates to Erlotinib that are upwards of 50%. These agents have their unique side effects, such as in this case with the rash, requiring dose reduction. Nevertheless, future advances in lung cancer treatments are likely to come in such targeted and personalized therapies. ■

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cancer will be appropriately managed through the teleconferenced Mercy Cancer Institute Breast Cancer Board.

A new era in the treatment of cancer is beginning today. A transparent treatment approach employing national guidelines throughout the Dignity Health service area will benefit both cancer patients and their physicians.

Please stay tuned as our Mercy Cancer Institute plan unfolds and our upcoming teleconferencing begins. Shortly we will begin our Chest Teleconference and Breast Conference—times and dates to be announced.

The Mercy Cancer Institute looks forward to a very bright and innovative future in cancer care for the Dignity Health service area.

Yours truly,
Costanzo A. Di Perna, MD
Medical Director, Mercy Cancer Institute

PATHWAYS 2012

The Mercy Cancer Institute of Greater Sacramento is committed to providing quality cancer care based on the most up-to-date research and methodology. Join some of the top minds from Mercy's interdisciplinary team for a special day of insight and discussion on the latest advances in cancer diagnosis and treatment.

Saturday, Feb. 11, 2012
7:30 a.m. to 1 p.m.
Arden Hills Country Club

RSVP today for this prestigious event.
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