

Fall '11

network



Neuropathy: Shedding light on 'a scary prognosis'

Patrick Dougherty, Ph.D., is passionate about finding the cause of pain.

A professor in MD Anderson's Department of Pain Medicine, Dougherty and his research team explore why some chemotherapy patients develop chronic peripheral neuropathy, a common and debilitating side effect of chemotherapy.

Several types of frontline cancer drugs cause patients to develop this condition — sensations in the hands and feet that range from numbness and tingling to severe pain.

For some, this side effect lasts longer than three months, earning the label chronic.

"For example, 60% to 70% of patients on Velcade® (bortezomib) experience numbness in their hands or feet," Dougherty says. "One-third of those experience pain, and a smaller percentage develop chronic pain.

"Once you cross into the 'chronic' category, that's a scary prognosis," he says. "Our studies have shown that it's rare for that pain to improve."

Since he started his career, Dougherty has been intrigued by the biologic mechanisms that cause pain.

Why are some patients more susceptible to painful nerve damage that forces a choice between the most effective chemotherapy and a high quality of life after treatment?

A better way to gauge an important predictor

Dougherty is an authority on devising efficient ways of testing various types of pain response. He's studied patients' sensitivity thresholds to touch, pain, heat and cold.

He believes that a patient's likelihood of developing chronic peripheral neuropathy is

related to the density of nerve fibers in the epidural, or outer, layer of the skin.

Chemotherapy damages these nerve fibers, and sometimes they don't regenerate. Their loss leaves patients with chronic pain.

To assess a patient's baseline density, though, has required a painful punch biopsy on the fingertip. Not surprisingly, patients have been reluctant to submit to this test before treatment.

So Dougherty has been searching for a quick, painless, but accurate, way of assessing the nerve-fiber density of patients before they begin treatment.


Recently they've had success with an *in vivo* confocal reflectance microscope capable of high-resolution imaging of the skin. It's noninvasive and painless.

"If we can look at scans of patients' fingertips and see that they have relatively fewer nerve endings to begin with, we might tailor treatment to better protect these crucial nerves," he says. "We want to choose the best dose to avoid toxicities."

What drives him, Dougherty says, is first, the fact that patients who develop peripheral neuropathy may curtail their chemotherapy treatment, missing out on the ideal dose to wipe out the cancer.

"Second, if patients get neuropathy in their hands and feet, it may not go away and may be quite debilitating for them.

"It's not enough just to survive," he says. "Patients want a high quality of life."

Best of all, Dougherty says, his research may eventually help all those affected by chronic peripheral neuropathy — for example, diabetics — not just cancer patients. 

To learn more about cancer-related pain, visit www.mdanderson.org/topics/pain.

Man of faith undaunted by cancer

A Baptist minister, Jonathan Cobb preaches the message of hope and renewal that a cancer diagnosis can bring.

When diagnosed with duodenal cancer in March 2006, Cobb knew the difficulty that lay ahead because his mother-in-law had learned two months earlier that she had the same

condition. She died from the cancer eight months later.

Cobb began to suspect his health was in jeopardy while researching his mother-in-law's disease. He had attributed his weight loss, fatigue and depression to a busy workload and long commute to his former church in Delray Beach, Fla.

As he continued to learn about the cancer, his intuition told him to look into

updating his life insurance policy.

When his blood work revealed anemia and elevated liver enzymes, he was denied life insurance. So he consulted his primary physician for additional testing.

Diagnosis, treatment reveal new calling

A deep endoscopy revealed a tumor in Cobb's duodenum, the first section of the small intestine. He went to MD Anderson and, in April 2006, underwent the Whipple procedure, which removed parts of his pancreas and stomach. It took him nearly a year to recover. He subsequently had six weeks of chemotherapy and 28 radiation treatments.

Cobb, who is writing an autobiography, spends much of his time delivering motivational speeches for the American Cancer Society and to church groups, schools and hospitals across the country.

"Cancer gave me a bigger platform to do the things that were already in me, and those things were greater than the cancer by far," he says.  — Lauren Schoenemann



Pastor Jonathan Cobb with (from right) wife Jennifer holding baby Jacqueline, Jonathan David, Jenna, and Julia.

Uterine cancer strikes suddenly

She was on top of the world.

Newly retired from a rewarding career as a geologist, eager to travel with her husband and seemingly healthy, Florence Arya was stunned when a well-woman exam in 2004 revealed she had a rare form of uterine cancer.

Then 57, Arya was diagnosed with stage III uterine papillary serous carcinoma, an aggressive type that accounts for less than 15% of endometrial cancers.

Arya, who was postmenopausal, had experienced some vaginal bleeding, but hadn't been too concerned about it.

Her treatment consisted of a complete hysterectomy, five weeks of radiation and five sessions of chemotherapy.

Seven years later, Arya is immensely grateful for her recovery and quick to give credit where it's due.


"I couldn't have made it without my angel of a husband and Dr. Karen Lu — and exercise," she laughs. Lu is a professor in the Department of Gynecologic Oncology and Reproductive Medicine at MD Anderson.

Arya goes to Jazzercise® classes six days a week. "Even during the worst of treatment, I found it uplifting," she says.



Always there for others

Arya is Anderson Network's Telephone Networker of the Year for 2011. She has spoken to hundreds of patients, giving support, comfort and encouragement. She is also involved with the Cancer Survivorship Conference.

"I volunteer because I couldn't find anybody like me when I was first diagnosed. I was told, 'There's nobody alive with this type of cancer.' It was terrifying," she says. "I have an incredible need to know. I wanted to find out all I could about the disease." 

Read more about these patients in Network online: www.mdanderson.org/network.

Study on risk of secondary cancers from radiation treatments

Researchers at the National Cancer Institute (NCI) and MD Anderson have found that a relatively small number of secondary cancers develop from radiation therapy.

The results of the long-term, large-scale retrospective study were published in the March 30, 2011, edition of *Lancet Oncology*.

Since more than half of cancer patients receive radiation as part of their treatment, the findings are noteworthy.

Of the 647,672 patients with solid cancers in NCI's Surveillance, Epidemiology and End Results (SEER) database, an estimated 3,266 patients (8%) developed a second solid cancer that could be related to their radiation treatment.

Though there are potential confounding variables, or interference by other variables that may distort the association being investigated, the study results indicate that radiation treatment benefits far outweigh the risks that patients will develop secondary cancers.



A changing landscape for melanoma

The first positive, randomized vaccine study for advanced melanoma, and one of the first in cancer overall, has shown the benefit of using the body's own defense system to attack tumor cells without destroying healthy tissue.

Researchers reported the vaccine — when combined with the immunotherapy drug Interleukin-2 — improved response rates and progression-free survival in a randomized Phase III clinical study. Results were published in the June 2, 2011, edition of the *New England Journal of Medicine*.

Melanoma is one of the fastest-growing cancers. In 2010, more than 68,130 people were diagnosed in the United States alone.

“This is a very exciting time for the field of melanoma. During the past few years, the entire landscape has changed,” says Patrick Hwu, M.D., professor and chair of MD Anderson's Department of Melanoma Medical Oncology and the study's senior author.

“Now our focus will need to turn toward studying these novel therapies in combination and continue our quest for better vaccines. We must also research ways to make the study inclusive of more metastatic melanoma patients.”



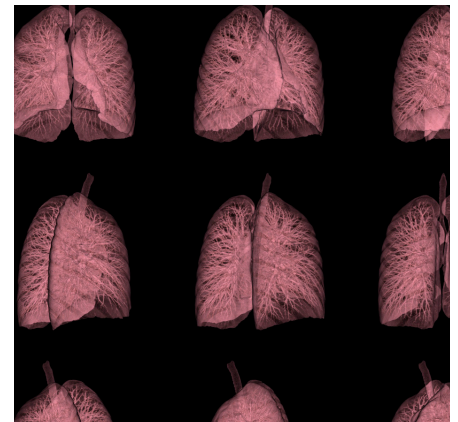
CT screening can detect lung cancer earlier

The National Lung Screening Trial (NLST) revealed that computed tomography (CT) is a more effective method of detecting small lung cancers than the standard chest X-ray, and this earlier detection may reduce lung cancer-specific mortality by 20%.

As one of 33 participating sites in the NLST, MD Anderson has developed a lung screening program with \$400 CT scans for current or former smokers 50 years of age or older, who have smoked the equivalent of one pack of cigarettes a day for at least 20 years.

The program also offers access to other services through the Cancer Prevention Center, including risk assessment counseling for those found not to have lung cancer and low-cost tobacco cessation programs to help smokers quit.

To schedule a screening, contact askMDAnderson at 877-MDA-6789 (877-632-6789).



Drowning in medical paperwork? Scan this QR code with your smartphone to see a video on how cancer patients and survivors can get — and stay — organized.

To learn more about MD Anderson research, visit www.mdanderson.org/newsroom.

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Page 4 briefs

Would you be willing to share your cancer experience with a newly diagnosed patient? If so, call the Anderson Network at 713-792-2553 or 800-345-6324, and find out about becoming a member of our telephone support line that matches patients and caregivers dealing with similar diagnoses and treatment plans. Especially needed are those who have experienced:

- adrenocortical carcinoma,
- advanced gynecologic cancer,
- gastric cancer,
- gallbladder cancer,
- penile cancer, and
- sarcoma (particularly leiomyosarcoma).

In addition, we're looking for:

- those who speak languages other than English, especially Spanish.

Your story and willingness to listen could make the difference in another person's ability to cope with this potentially life-threatening illness. The Anderson Network motto is: "Sometimes the best help comes from someone who's been there."



www.mdanderson.org/andersonnetwork

 AndersonNetwork

*Sharing hope, support and understanding with anyone diagnosed with cancer,
regardless of where treatment is or was received.*