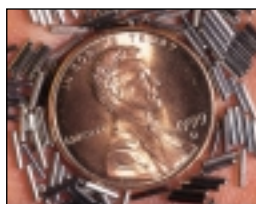


Right On Target with Tumors

Few words strike fear like the word "cancer." It starts with a single cell that falters in its normal process of growing, dividing and being replaced. The cell splits wildly, without restraint, giving rise to billions of other aberrant cells in the form of a tumor. For two decades, Arizona Oncology Services has been treating people with cancer, pushing the envelope with new treatments that build on existing surgeries and chemotherapies.

Radiation therapy, in conjunction with other treatments or on its own, has been a longtime focus of Arizona Oncology Services. It has the power to obliterate a tumor at the site and kill off lingering, harmful cells. But as effective as radiation therapy can be, it has a significant drawback, acknowledges oncologist **David C. Beyer, M.D.:** "Tumors are often surrounded by sensitive, normal structures that can be harmed by radiation."

Now, a fine-tuned approach to the treatment, called intensity modulated radiation therapy (IMRT), makes it possible to pinpoint the tumor with exquisite specificity, destroying the cancer but sparing nearby tissue. Dr. Beyer, recognized as one of



The tiny implants seeds become inert when therapy is finished.

Arizona's Top Docs by *Phoenix Magazine*, offers IMRT at the Arizona Oncology Services' newly opened facility, Scottsdale Radiation Oncology, the first of its kind in Arizona. "We're offering treatment options that aren't available anywhere nearby," says Dr. Beyer, Medical Director of the facility who also has a faculty appointment at the University of Arizona. "IMRT is the latest, most precise and focused way of delivering treatment to tumors near sensitive structures." The treatment is ideal for his specialty, prostate cancer, and also for tumors of the lungs, head and neck, and even brain.

Like traditional radiation, IMRT begins with a CT scan, showing the location and size of the tumor. A patient with prostate cancer, for instance, lies in a custom-made "cradle." A laser beam and ultrasound scan localize the site, and the radiation is turned on for 10 to 15 minutes. What's different about IMRT is

what happens behind the scenes. A week before treatment begins, information from the CT scan is loaded into a sophisticated computer by a highly skilled team, including a medical physicist, a dosimetrist (who orchestrates dosage), and a radiation therapist.

When the radiation is turned on, the computer uses the information to modulate radiation delivery, changing the pattern from 50 to 100 times, conforming to the shape of the tumor. "It's a huge difference from standard treatment," Dr. Beyer says. "We can treat the tumor with higher doses and still shield normal tissue." Sessions continue daily for up to 2 months, though some tumors require fewer treatments. Patients with prostate cancer tolerate the new therapy better than the conventional method, experiencing less fatigue, urinary irritation, nausea and diarrhea.

Along with IMRT, the surgically accredited Scottsdale Radiation Oncology offers other highly specialized treatments. Another prostate therapy Dr. Beyer performs is one that has received widespread press for its success. It's called prostate seed implantation, and Dr. Beyer was the first in the valley to use it 11 years ago.

Today, with the expertise and reputation of nearly 1,600 implantations, he draws nearly a third of his patients from out-of-state, lectures across the country and teaches other physicians to perform it.

Patients receive general anesthesia for this procedure, though it's done on an outpatient basis. The "seeds" are tiny bits of radioactive metal, each as short as a grain of rice and as slender as a straight pin. Working with a urologist, Dr. Beyer uses ultrasound guidance, directing a needle into the perineum, the tissue between the scrotum and rectum. They lead the needle to the prostate and deposit 50 to 150 seeds into the tumor. "It takes practice to handle the metal and experience to place the seeds where they'll do the most good," he says. Once the seeds enter the prostate, they remain there, delivering a consistent but finite dose of radiation into the tumor. After time, they become inert.



Prostate cancer expert Dr. David Beyer offers patients a choice of high-tech treatments.

While the implantation can cause initial discomfort urinating, many men prefer the convenience of this one-time treatment. Like IMRT, seed implantation is best for men with low levels of the PSA tumor marker whose cancer hasn't spread. Most importantly, these therapies

offer men a 90 to 95 percent cure rate—the same as surgery. Says Dr. Beyer: "We're unique in Arizona because we're able to offer patients an option of state-of-the-art treatments." For information or referrals: (602) 274-4484 ■



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