Area offers new approach to detecting, diagnosing and treating prostate cancer by ANDREA GABLE



From left, David Lowther, MD; Nayha Dixit; Leigh Collins; Erin Hutchinson; and Robert Cowles, MD, make up the team that treats prostate cancer at the Georgia Center for Total Cancer Care.



TREATMENT





The Cancer Center's CT-guided HDR therapy table puts the Cowles Clinic in the top 1 percent in the country for technology, according to Dr. Lowther, right. The patient's set-up before the procedure is guided by both laser and ultrasound technology.

lead to early diagnosis.

Dr. Bob Cowles, urologist and founder of the Cowles Clinic, said a man should first examine his family history. If he has a positive history for prostate cancer — i.e., a father, brother, uncle or grandfather - his risk of getting prostate cancer doubles.

Other factors include age and ethnicity.

"With increase in age comes increased risk of prostate cancer, and blacks are at greater risk than whites," said Cowles. "Finally an unhealthy, high-fat diet or a waistline greater than 38 inches may increase your risk."

### **EARLY DETECTION**

Early prostate cancer usually has no symptoms, making regular screening critical for early detection. If diagnosed at an early stage, it is estimated that nearly 100 percent of men can be disease free in five years.

Depending on a patient's risk factors, Cowles generally recommends that men between the age of 40 and 45 begin scheduling annual visits to a doctor to have two screenings — a prostate-specific antigen or PSA blood test, and a digital rectal exam where the doctor feels the prostate to check for irregularities.

"You can't just have a blood test or you can't just have an exam. You have to have both. They carry equal weight," said Cowles. He said the exam should rule out any irregularities in size or shape and the PSA number should be below 2.5. But in younger men, below age 50, Cowles said the PSA should be below 1.5.

"In diagnosing prostate cancer, I think it is critically important to understand that, in the

past, a PSA has been considered normal if it was less than 4," he said. "That was where we traditionally set the threshold for suspicion. But for the last five years, the tests have shown a normal PSA should be less than 2.5."

Another indicator of prostate cancer risk aside from an exam or PSA can be a patient's PSA velocity, or the speed at which a PSA goes up. Often a patient may have a normal PSA the first time he is tested, only to find subsequent tests show a rapid change in the number, even if that number may not yet cross the threshold of suspicion.

Should the exam or blood test show an abnormal PSA or PSA velocity, a patient's next step would be to have a prostate ultrasound and a biopsy would be performed — a simple, five-minute procedure done in the office which Cowles said is not very painful. If these further tests are negative for prostate cancer, doctors will simply follow that patient closely.

If the biopsy is positive, Cowles said the patient and doctor will begin discussing curative measures and will run diagnostic tests including CT Scans and MRIs to make sure the disease has not spread further than the prostate gland.

#### TREATMENT OPTIONS

There are currently three basic methods of cure in this country - surgery, freezing and radiation.

A prostatectomy involves the surgical removal of the prostate gland and gives the patient a 90 percent cure rate. Cowles said there are several different surgical techniques — traditional surgery, laparoscopic surgery and robotic surgery — but there is essentially no difference in the methods.

"There have been many studies done comparing these different ways to remove the prostate, and they've shown no real difference in cure, hospitalization, operating time, blood loss, side effects and complications," said Cowles. "It's basically a choice between patient and doctor."

Prostate surgery usually consumes about six weeks of a patient's life, Cowles said. There is

usually a brief hospital stay after which the patient wears a catheter for a few days and may deal with incontinence for a while after the surgery. There is a 60 percent chance for impotence after a prostatectomy.

Cryotherapy is the process of freezing the entire prostate gland to kill the cancerous tumor. Though the cure rate under cryotherapy is slightly lower than the surgical option and there is an 80 percent chance of impotency, Cowles said some patients are good candidates for freezing.

Cowles, who performed the first cryotherapy case in Georgia in 1992, said that while it remains a good treatment option, he believes there are now better methods of treatment for prostate cancer.

Many patients diagnosed with prostate cancer today are opting for radiation therapy. They may choose to undergo a few weeks of daily treatments of 20 to 30 minutes of external beam radiation or they may look into newer high-dose radiation techniques.

Unlike the daily treatments that have to go through the body to reach the tumor, highdose techniques can actually put the radiation inside the tumor. This allows for a higher dose to be given to the target while minimizing the exposure of the normal tissues around the prostate — the bladder and rectum.

This method, known as Brachytherapy, involves the use of needle probes to implant small pellets, or seeds, containing the



The Cancer Center's state-of-the-art MRI machine is located across the hall from the HDR therapy table, allowing patients to receive both a diagnosis and treatment in the same facility, and sometimes even the same day.

radiation into the tumor. As the radiation is released, it kills the cancerous cells.

Most seed implants are permanent, releasing lower-dose radiation over a long period of time, and remain in the prostate even after the radiation has degraded. But temporary high-dose radiation seeds, which stay in the patient only for about 15 minutes, are continuing to gain ground in the treatment of prostate cancer.

Dr. David Lowther, a radiation oncologist who performs these HDR procedures at the Cowles Clinic, said the key advantage of temporary seeds over permanent seeds is the accuracy of the seed placement and dosage of radiation.

"With temporary seeds, you are able to manipulate the needles before delivering the radiation treatment," said Lowther. "This leads to higher accuracy which translates into higher cure rates."

He explained that with temporary seeds,

the exact dosage of radiation is calculated after the needles are positioned in the proper place, unlike permanent seeds that contain dosages that may have been calculated weeks in advance. This precision, he said, not only increases the cure rate, but decreases the rate of toxicity.

"I've been trained in and have performed all of the different forms of radiation, and temporary HDR is the only thing I'm committed to for my patients," said Lowther.

> Brachytherapy has similar cure rates as the surgical options and the impotence rate is slightly better. Lowther said, depending on a patient's risk profile, most procedures result in a 95 percent cure rate.

> Any form of Brachytherapy is performed by both a urologist and a radiation oncologist — the urologist places the needles into the tumor and the oncologist delivers the radiation through these needles.

> Since this tandem effort is required for these procedures, it led Lowther and Cowles to join forces to create a groundbreaking treatment concept within the Georgia Center for Total Cancer Care at the Cowles Clinic.

#### **GEORGIA CENTER FOR TOTAL CANCER CARE**

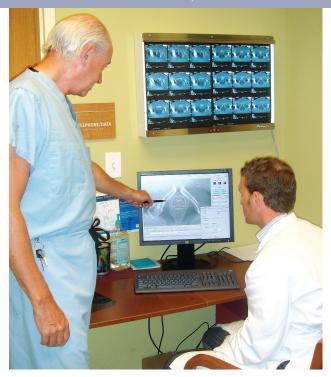
For most patients around the country, Brachytherapy translates into an entire day spent at the hospital. After undergoing an operation under general anesthesia performed by the urologist, patients are then moved, sometimes even by ambulance, to a radiation facility to receive the dose of radiation.

Cowles and Lowther saw an opportunity to improve the efficiency of this process by creating a comprehensive cancer center for men where patients could come in and get everything they needed done by two doctors in one place. The center's state-of-the-art equipment used to diagnose and treat prostate cancer is located right across the hall from each other, allowing Lowther and Cowles to perform five or six procedures a day.

Through the use of local anesthesia, patients are able to walk in, get treatment and walk out within a span of about three hours.

Continued on page 40

## TREATMENT



Dr. Cowles, left, and Dr. Lowther, right, collaborate on each patient's case to project the best treatment option for their situation.

Cowles said he has often visited patients at their home following their procedure and found them out grilling a steak that same evening or playing 18 holes the next day. One patient, he said, even came back to the Center to speak during the monthly prostate cancer awareness meeting after having the procedure done that same morning.

"It's an amazing thing," said Cowles. "We're on the cutting edge of this form of therapy in the treatment of prostate cancer."

Lowther said the Cowles Clinic will have publications out next year chronicling this new approach to prostate cancer treatment.

"We wanted to do this like no one else is doing it in the country," said Lowther. "We've created this model that will change the paradigm in prostate radiation."

Attracted by the prospect of never having to walk into a hospital, Cowles said patients are discovering the concept's simple practicality and beginning to come in, not only from the local area, but from across the country and across the ocean.

"People living here are able to get a full diagnosis, evaluation and therapy without ever leaving their community," said Cowles. "And they're sitting alongside people who have gotten on airplanes to come see us. I'm proud to be able to offer this to my community and proud to see it help the Cowles Clinic grow as a medical destination."

To find out more on prostate cancer and treatment options, the Cowles Clinic offers prostate awareness meetings at 6:30 p.m. the last Tuesday of each month in the Cancer Center's auditorium.

# YOU HAVE A CHOICE

DON'T TRUST YOUR PHYSICAL THERAPY TO JUST ANYONE ... COME SEE A SPECIALIST!

### SPECIALIZING IN:

- Post-Surgical Rehabilitation Neck and Back Pain Relief
  - Golf Fitness Sports Injuries
  - Shoulder, Elbow and Knee Dysfunction
     MEDICARE AND MOST INSURANCE ACCEPTED

CHRIS ALLIGOOD - PT, MS, OCS

BOARD CERTIFIED SPECIALIST IN ORTHOPAEDIC PHYSICAL THERAPY

1 of only 66 Board Certified Orthopaedic Specialists in Georgia



LAKE OCONEE
1001 VILLAGE PARK DRIVE
SUITE 105
(706) 454-2000

Located in Village Shops at the Green next to Reynolds Landing Front Door Parking • Brand New State-of-the-Art Facilities • Flexible Scheduling