Experts Discuss Emerging Treatments and Multi-Disciplinary Approaches to Prostate Cancer Care
Several presenters report promising results with stereotactic ablative body radiotherapy (SABR), a non-invasive alternative to surgical intervention

WASHINGTON, May 20, 2011 /PRNewswire/ -- Urologists and radiation oncologists might serve prostate cancer patients better if they collaborated on multi-disciplinary approaches to treatment, rather than adopting an "either/or" perspective that often results in a choice between surgery, brachytherapy, external beam radiotherapy or stereotactic body radiotherapy, according to leading clinical experts presenting their work in the Varian Medical Systems (NYSE: VAR) booth at the American Urological Association (AUA) Meeting in Washington, D.C. last week.

"The development of stereotactic radiosurgery capabilities has opened up new possibilities for the non-invasive treatment of kidney and prostate cancer," said Lee E. Ponsky, MD, director of the Center for Urologic Oncology and Minimally Invasive Therapies at University Hospitals Case Medical Center in Cleveland. "Urologists and surgeons need to be aware of these developments, and work closely with colleagues in radiation oncology to evaluate the role of radiosurgery in the treatment of prostate and kidney cancer."

Ponsky discussed several pre-clinical and clinical trials taking place at his institution, looking at the viability of radiosurgery for treating small renal masses, or kidney cancer, as well as early stage prostate cancer. "We have now treated about 20 kidney, and over 60 prostate cancer patients. We have reason to be cautiously optimistic. There have been no adverse events among the kidney cancer patients related to treatment.(1) The initial data from the prostate cancer trial look promising. Patients received five treatments, initially on consecutive days; now we spread this out to treat every other day. We're seeing minimal side effects and an encouraging PSA (prostate-specific antigen) response in these early trials," he said.(2)

Constantine A. Mantz, MD, chief medical officer at 21st Century Oncology in Fort Myers, Florida, presented on stereotactic ablative body radiotherapy (SABR) as an emerging treatment for prostate cancer. Mantz has been conducting Phase II trials using Varian's Trilogy® machine to deliver SABR treatments for early stage prostate cancer, and has presented on the effectiveness and safety of this approach at international medical meetings. (3)(4)

"We're finding that SABR may enable improved outcomes while maintaining, if not further reducing, the already-low complication rates that we have been seeing with earlier advances like intensity modulation and image-guidance," Mantz said. "For our SABR treatments, we use imaging and beam-shaping technology in a way that allows us to compress the typical two-month course of radiation therapy down to only five visits over a two-week period."

John Ravera, MD, research director at the Cancer Center of Irvine, California, discussed the use of hybrid prostate radiation therapy (HPRT), which combines the use of high-dose-rate brachytherapy—the temporary placement of radioactive sources into a tumor through a removable catheter—with image-guided radiotherapy (IGRT), which targets the tumor with high-energy X-rays delivered from outside the body. "HPRT is best managed through a close collaboration between urologists and radiation oncologists," Ravera said.

Historically, clinicians at the Cancer Center of Irvine had been using permanent seed implants to treat prostate cancer, so they were used to close collaboration with urologists. "Our cancer center is right next to the surgical center," Ravera said. "We've always collaborated; urologists helped us place the seeds for low-dose-rate brachytherapy. More recently, we worked together to test an interesting procedure for reducing rectal bleeding and diarrhea, which are the most common side effects from radiotherapy for prostate cancer."

Ravera and his colleagues tested a physical spacer for separating the prostate from the rectum during radiotherapy treatment. "We completed an FDA-approved study of ten patients, using a cross-linked hyaluronan gel that we injected between the prostate and rectum. Once injected, the gel would solidify and move the rectum away from the prostate. We didn't need much separation because IGRT is a very precise way of delivering dose. Less than a centimeter of space between the two organs enabled us to reduce the amount of incidental dose reaching the rectum. For these men, we saw a significant decrease in rectal side effects." (5)

"As radiation oncology continues to evolve and technology developments blur the distinction between surgical and non-surgical interventions, we think that multidisciplinary care will become more and more the norm," said Calvin Huntzinger, MS, senior director, Varian Surgical Sciences. "Varian is committed to helping facilitate this teamwork so that the benefits of non-invasive radiosurgery can be made available to more patients."

About Varian Medical Systems
Varian Medical Systems, Inc., of Palo Alto, California, is the world's leading manufacturer of medical devices and software for treating cancer and other medical conditions with radiotherapy, radiosurgery, and brachytherapy. The company supplies informatics software for managing comprehensive cancer clinics, radiotherapy centers and medical oncology practices. Varian is a premier supplier of tubes and digital detectors for X-ray imaging in medical, scientific, and industrial applications and also supplies X-ray imaging products for cargo screening and industrial inspection. Varian Medical Systems employs approximately 5,400 people who are located at manufacturing sites in North America, Europe, and China and approximately 70 sales and support offices around the world. For more information, visit http://www.varian.com.

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