

Cancer 'freezing' technique lessens pain, cuts hospital stay

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(Medical Xpress) -- When considering treatment options for kidney tumors, preserving any kidney function is preferable to removing the entire organ: Cardiovascular health improves, hypertension is less frequent and re-hospitalization rates decrease.

Urologists with UC Health are now offering [patients](#) a non-surgical treatment for small kidney tumors that results in virtually no pain and allows the patient's kidney to be spared.

The procedure—known as computed tomography (CT)-guided percutaneous cryoablation—uses 3-D imaging technology to direct a small probe through the skin and into the kidney to freeze cancerous tissue.

James Donovan, MD, chief of urology for the UC College of Medicine and urologist with UC Health, says the procedure is particularly useful for elderly patients or people with significant medical conditions—such as chronic obstructive pulmonary disorder or heart disease—who may not be able to tolerate a major surgery.

Kidneys are small, crescent-shaped organs that filter blood and remove waste products from the body via urine. People can live with one or part of one kidney, but if both organs are removed or dysfunctional the blood must be mechanically cleansed using a process known as dialysis.

Clinical data has shown that removing only the tumor and sparing the

rest of the kidney is as effective in curing cancer as removing the entire organ in certain patients.

"Patients with posterior tumors—embedded deep in the backside of the kidney—typically don't qualify for minimally invasive surgery because the tumors are hard to access. Cryoablation spares those patients drastic open surgery and still provides good cancer control. The CT-guidance improves the effectiveness of the treatment," adds Donovan.

UC Health urologists have used this technique in seven patients since beginning to offer it at UC Health West Chester Hospital in March 2011. Patients have reported virtually no pain, spent one night in the hospital and gone home the next day.

"Studies have shown the success rate is higher and complication rates are lower for cryoablation of [kidney tumors](#) when the procedure is performed as collaboration between urology and radiology," adds Donovan, who has partnered with Glen Taylor, MD, a radiologist who practices at West Chester Hospital, and Vladimir Mouraviev, MD, an endourology fellow at the College of Medicine, to build the UC Health-based program.

UC Health urologists were among the first in Greater Cincinnati to offer and have significant experience performing minimally invasive partial nephrectomy—what is known as "kidney-sparing surgery"—to remove small cancerous tumors without sacrificing the entire organ, using minimally invasive techniques. The team also offers cryoablation to treat certain localized prostate cancers.

Provided by University of Cincinnati

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