Record-Journal

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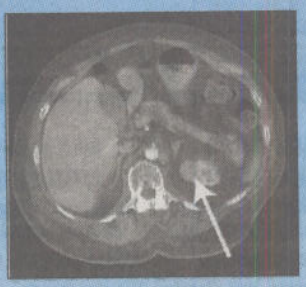
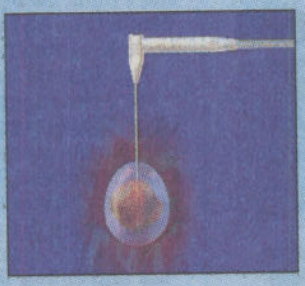
A NEW ICE AGE OF CANCER TREATMENT

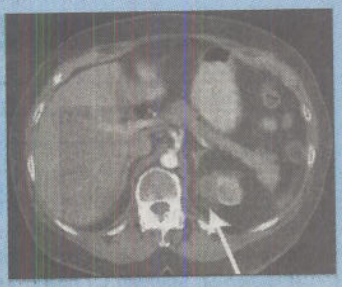


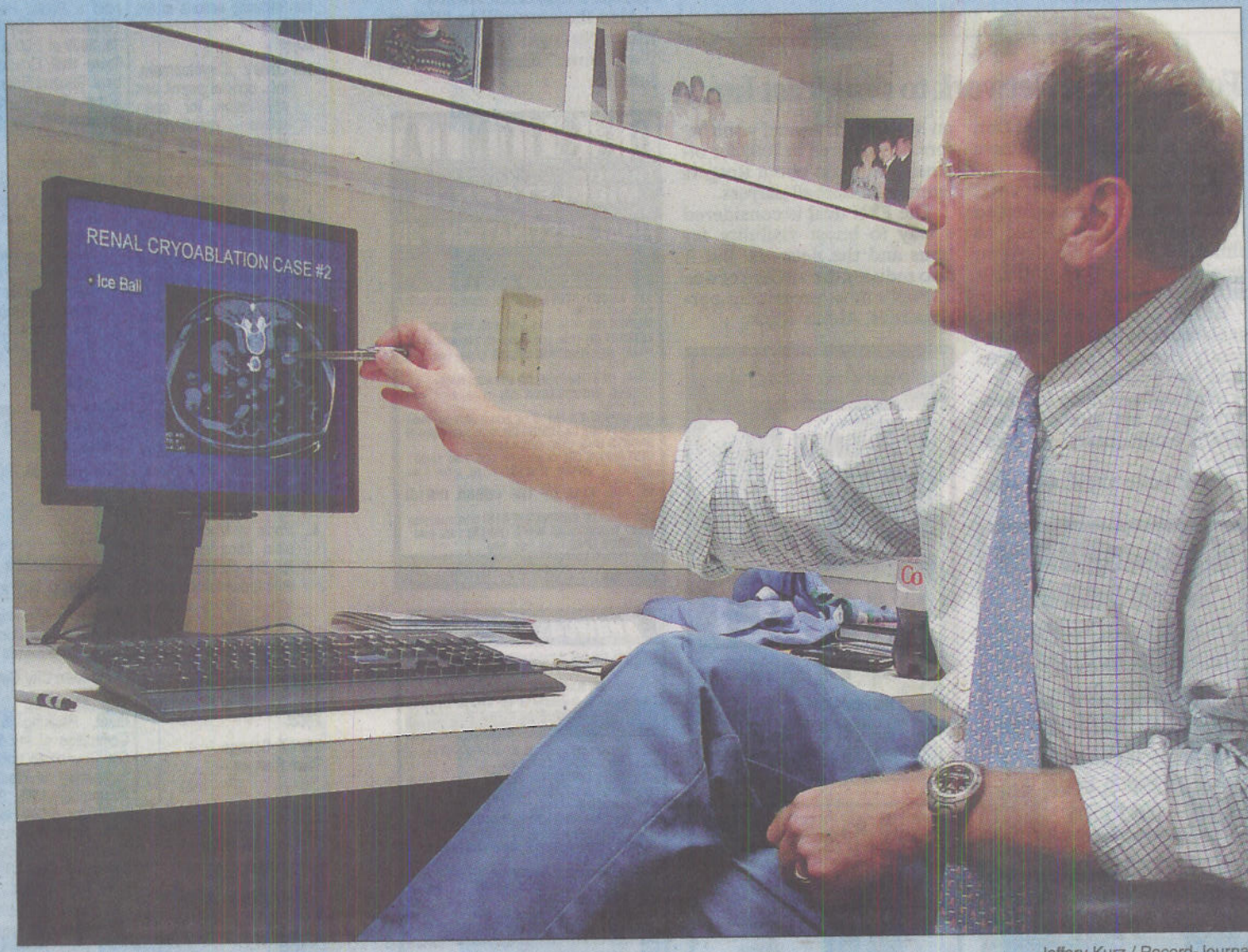
Left: The arrow points at a 2-centimeter tumor on the left kidney. **Right:** This probe is cooled to 75 degrees below Celsius and inserted into a tumor to kill cancerous cells without affecting surrounding tissue.



Right: Four months after the procedure, the tumor is decreased and needs no more treatment.

Illustration courtesy of Endocare Inc.





Jeffery Kurz / Record-Journal

Dr. Kevin Dickey, chief of interventional radiology at the Hospital of Central Connecticut, points to a screen showing how cryoablation works at New Britain General Wednesday. Cryoblation uses CT scan imaging to guide a probe into the tumor. Chilled by liquid nitrogen to as cold as a frigid minus 103 degrees, the probe becomes an ice ball that kills cancer cells.

Cryoblation freezes, kills cancer cells with more accuracy, less suffering

By Jeffery Kurz
Record-Journal staff

Health

"With cryoblation, you can see how much tissue you've actually treated."

— Dr. Kevin W. Dickey, chief of interventional radiology at the Hospital of Central Connecticut

NEW BRITAIN — Decades ago, patients with a cancerous tumor in their kidneys would typically experience symptoms like blood in the urine or extreme pain. Treatment involved trying to get rid of the cancer by surgically removing part of the kidney or all of it.

Today, malignant kidney tumors are more likely to be found incidentally, showing up while doctors are looking for something else. Consequently, the cancer is more often detected at earlier stages and the tumors are smaller. That has led to other opportunities for treatment, including alternatives to surgery.

In some cases, renal cell tumors can be treated with radiofrequency ablation, a technique that increases the temperature of tumor tissue in an effort to destroy the cancer.

Another method takes the opposite approach to heat, by giving the tumor the Mr. Freeze treatment.

Called cryoblation, the process uses CT scan imaging to guide a probe into the tumor. Chilled by liquid nitrogen to as cold as a frigid minus 103 degrees, the probe becomes an ice ball that kills cancer cells.

It's a less painful experience for the patient both during and following the procedure, said Dr. Kevin W. Dickey, chief of interventional radiology at the Hospital of Central Connecticut, which includes New Britain General and Bradley Hospital, in Southington.

Another advantage over radiofrequency ablation, he said, is that it allows for a more accurate way of getting at cancer cells while leaving surrounding tissues unaffected. With radiofrequency ablation "it was hard to know when you were done," he said. "With cryoblation, you can see how much tissue you've actually treated."

The minimally invasive procedure is performed by passing needles, usually three, through the skin without the need for incision. The Hospital of Central Connecticut has been using the technique for about the last two years, said Dickey. Patients require a local anesthetic and moderate sedation, and the method typically means an overnight hospital stay. Most patients experience very little discomfort, said Dickey.

At the moment, its use is mostly targeted for older patients or those with medically complex conditions that make them risky candidates for surgical procedures.

But cryoblation is gaining acceptance, and Dickey says he's starting to get referrals for patients outside of those who are simply too ill to undergo an operation. Still, it remains to be seen when the approach will be recommended for a general audience.

More long-term data is needed before the procedure can gain acceptance beyond a recommended minimally invasive treatment, said Dr. Joshua Stein, a urologist with the Urology Center of Grove Hill, in New Britain.

While the gold standard of treatment remains removing the kidney or part of it, Stein said when it comes to cryoblation "it's a promising technology and we'll definitely see an expansion of its use in the future."

jkurz@record-journal.com
(203) 317-2213