



Cryosurgery is effective for radiotherapy failures

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San Francisco—As a salvage for locally recurrent prostate cancer after failed radiation, targeted cryoablation of the prostate (TCAP) provides a "significantly better overall quality of life" than salvage radical prostatectomy, said Aaron E. Katz, MD, at the AUA annual meeting.

During targeted cryotherapy, six to eight slender cryoprobes are inserted percutaneously into the prostate gland. Argon gas is circulated at the tips of the cryoprobes, freezing the entire gland. Tissue that reaches -40°C is destroyed.

In a study of 139 prostate cancer patients who initially failed radiation therapy and who were later treated with targeted cryotherapy, the progression-free survival rate was 95.6% at a mean follow-up of 44 months. The survival rate at 5 years was 97% and 96.4% at 10 years, which is similar to that of radical prostatectomy, said Dr. Katz, associate professor of urology, Columbia University College of Physicians and Surgeons, New York.

He said the study population had a low rate of morbidities, including increased frequency of urination (20%), incontinence (6.3%), retention (1.4%), and rectal pain (1.2%). No patients experienced fistula or deep vein thrombosis, and none required blood transfusions.

"Although the typical radiation failure patient presents with already compromised anatomy and with the potential for complications in second-line treatment, these patients treated with TCAP enjoyed low rates of morbidities," Dr. Katz said, adding that the typical morbidities and related rates for salvage radical prostatectomy include incontinence (50%), bladder neck contraction (20%), and rectal injury (5%-15%).

Both cryosurgery and radical prostatectomy have rates of impotence "approaching 100%," he added.

All 139 patients in the observational study had biopsy-proven recurrent prostate cancer with negative bone scans, negative computed tomography scan, and/or Prostate-specific antigen scan. None of the patients presented with seminal vesicle invasion. Patients were a "typical salvage population," Dr. Katz said, with an average age of 69.92 years, PSA of 7.19 ng/mL, and Gleason score of 8.

In addition to lower rates of incontinence and rectal injury, cryosurgery requires no transfusion. It also uses minimally invasive technology that allows the patient to "walk in and walk out the same day," Dr. Katz said. The minimally invasive nature of cryosurgery allows for a repeat procedure, which is helpful for older patients.

"For prostate cancer patients who fail radiation, the advantages of cryosurgery over radical prostatectomy are outstanding," Dr. Katz told *Urology Times*. "A man in his late 60s with prostate cancer may not have a recurrence until he is in his late 70s. Why put a man in his 70s through major pelvic surgery?"

Cryosurgery is now the salvage treatment of choice for radiation failures at many leading medical centers, including Columbia, Dr. Katz said.

Technical improvements

The failure of cryosurgery to have wider acceptance and usage at U.S. institutions stems from the 1990s when the technology was not computer-guided and did not include a urethral warming device—two features that have markedly improved outcomes, Dr. Katz explained.

The warming device and related temperature monitoring helps prevent urinary incontinence by measuring and maintaining temperature in the urinary sphincter, and the use of computer and ultrasound technology has reduced the learning curve for cryosurgery.

"If you have good ultrasound skills, you can learn to do cryosurgery within 4 to 6 cases," Dr. Katz said.

Dr. Katz is a consultant to Endocare Inc., Irvine,