

CRYOTHERAPY SALVAGE OF RADIATED PROSTATE

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A common question asked of patients undergoing prostate cancer treatment is whether salvage therapy exists if first-line treatment is not successful. Of course, most oncologists would suggest the first approach to have the best-known results. The first choice should be the safest and have the greatest chance of disease-free survival. This is a fancy way of saying cured.

While radiation can be used after surgery and surgery sometimes can be used after radiation, a recent article has described the use of cryotherapy or freezing treatment after potentially curative radiation.

Freezing therapy is administered placing probes directly into the prostate through the skin in an attempt to turn the prostate into a "snowball" thereby killing cancer cells.

A recently performed analysis by Pisters et al, in the Journal of Clinical Oncology, analyzed such potential benefit. Radiation is particularly desirable for patients with prostate cancer since it is non-invasive and appears to have results equal to or better than surgery. Higher dose treatment yields, in general, superior results to standard radiation. That's part of our rationale for seed implant plus radiation.

Radiation also avoids the convalescence associated with surgery and the urinary incontinence and sexual dysfunction to a great degree. There are, however, some patients who have disease progression despite radiation. This is occasionally true even after high dose radiation seed plus body radiosurgery.

Other patients have had the standard radiation or conformal radiation only and have a higher rate of recurrence. Rising PSA's after treatment tend to coincide with cancer recurrence. Sometimes recurrent prostate cancers have a higher grade or more aggressive appearance under the microscope. These, associated with PSA (Prostate Specific Antigen) level detected in the blood stream are strong prognostic indicators for results after treatment. Very, very infrequently do patients have recurrences with lower or absent PSA blood levels.

Of course, a dilemma for those patients having a local recurrence only after radiation is what should be done. Should they undergo radical surgery, cryotherapy or palliative hormonal therapy only? A significant share of patients undergoing salvage prostatectomies is rendered disease-free.

What are the results undergoing cryotherapy or freezing therapy? The reason for seeking other than surgical intervention is the complication rates including rectal injury, bladder neck injury, re-operation for hemorrhage, damage to the ureter, leakage between the bladder and the rectum and blood clots associated with the surgery and post-operative period.

Since salvage cryotherapy is less invasive there should be less side effects. There are, however, reports of fistulas, abscesses, obstruction, impotence and passage of necrotic dead tissue. These are all serious sequelae of treatment - even freezing therapy.

Between 1992 and 1995, 145 men with biopsy proven recurrent prostate carcinoma underwent cryotherapy. 108 had prior radiation and 37 had more extensive treatment including radiation, hormonal therapy and/or chemotherapy. The patients undergoing cryotherapy had follow-up PSA every three months.

Patients who had a pre-cryotherapy PSA level of less than 10 had significantly better, disease-free survival than those having pre-cryotherapy PSA of greater than 10.

There was a 74%, two year disease-free survival if the PSA was less than 10 prior to cryotherapy compared to 28% if the PSA was greater than 10 prior to cryotherapy. Also, a higher tumor grade, evaluated in appearance under the microscope, made a vast difference in outcome. PSA and grade are important prognostic indicators for all treatment approaches. Tables are available outlining results based upon these useful markers.

There was a 58% likelihood of being free of cancer if the Gleason score was less than or equal to 8 compared to 29% if the Gleason score was 9 or 10. Gleason scores relate to the cancer's aggressiveness as determined by pathologists using visual gradations.

Patients who had hormonal therapy and radiation had a higher failure rate than those who had radiation alone. If patients had pre-cryotherapy PSA of less than 10 and had radiation only prior to cryotherapy, the two year disease-free survival was 74% compared to 19% of those patients who had prior hormonal therapy plus radiation.

Additionally, men having radiation only as initial therapy and a pre-cryotherapy PSA of less than 10 had a 60% chance of being free of cancer 48 months after treatment. While the authors note, "The chance of it being cured are quite slim, presumably the lower the PSA level the greater the likelihood of cure."

The authors concluded that, "Salvage cryotherapy and prostatectomy seem to cure a subset of patients with locally recurrent prostate cancer. These modalities are associated with significant morbidity and hence would be offered to those patients who are most likely to benefit. We believe that salvage local therapy should be considered in the young, otherwise healthy patients, with biopsy proven local recurrence after radiation therapy whose serum PSA level is less than or equal to 10mg per cc (cubic centimeter) and with a Gleason score for the recurrent cancer of less than or equal to 8. Patients who have received prior hormonal therapy and radiation therapy are less likely to benefit from aggressive salvage therapy. Performing salvage local therapy early at first evidence of local recurrence may improve the likelihood of cure."

This information is important for men determining which therapies offer significant hope in the treatment of prostate cancer - especially the second time around.