

RADIATION IMRT/SEEDS/ADT THERAPY

Compiled by Charles (Chuck) Maack – Prostate Cancer Advocate/Activist

Disclaimer: Please recognize that I am not a Medical Doctor. I have been an avid student researching and studying prostate cancer as a survivor and continuing patient since 1992. I have dedicated my retirement years to continued research and study in order to serve as an advocate for prostate cancer awareness, and, from a activist patient's viewpoint, to help patients, caregivers, and others interested develop an understanding of prostate cancer, its treatment options, and the treatment of the side effects that often accompany treatment. Readers of this paper must understand that the comments or recommendations I make are not intended to be the procedure to blindly follow; rather, they are to be reviewed as my opinion, then used for further personal research, study, and subsequent discussion with the medical professional/physician providing prostate cancer care.

This paper regards Radiation Therapy combining IMRT (Intensity Modulated Radiation Therapy), Brachytherapy Seed Implants, and Androgen Deprivation Therapy (ADT).

The outcome of most any treatment option depends to a great extent on the experience and expertise of the administering physician. Here are a few I am aware are among the best:

SARASOTA, FLORIDA

- Dr. Michael Dattoli and the Dattoli Cancer Center in Sarasota, Florida: Important is the comprehensive workup they do with each patient visiting their center and the advances his center has made in positive treatment results because of having purchased the most advanced radiological equipment for Brachytherapy Palladium-103 "theraseeds" implants including 4D IG-IMRT (4 Dimensional Image Guided Intensity Modulated Radiation Therapy) equipment with the aid of DART (Dynamic Adaptive Radiation Therapy) and the use of 3D Color Flow Doppler Ultrasound (CDU). His presentations at National Conferences on Prostate Cancer catch the attention of everyone present. (Image Guided Radiotherapy has the ability to show the soft tissue anatomy and pinpoint radiation treatment exactly where it is required, so there are almost no side effects). F18 PET/CT bone scan and Endorectal Coil MRI are also available locally if required. In my opinion, the equipment present in the Dattoli Cancer Center is state-of-the-art unlikely to be present at any other facility treating PC with Brachytherapy seed

implants. And Dr. Dattoli and his staff have proven their expertise with exceptional outcomes. A visit to www.dattoli.com should provide you the assurance you might require that if your option choice is brachytherapy seed implants accompanied by IG-IMRT and possibly short term ADT to insure all areas in which PC may be present are attacked, a trip to Sarasota would be an excellent choice. You can either find contact information on the website to discuss your concerns with a representative or you can email Dr. Dattoli's oncology nurse, Jennifer Cash, MS/ARNP/OCN, at www.brachyrm@aol.com who offered her consult when I met her and Dr. Dattoli at a conference. I believe they offer support in finding least expensive accommodations while there for treatment and you could also ascertain if your insurance coverage is accepted there (Medicare IS accepted). Dr. Dattoli spoke at a National Conference on Prostate Cancer I attended a few years ago, and what I found interesting was his explanation of why he administers IMRT first, followed by seed implants. He told us to open our hand and visualize the palm as the cancer tumor and our extended fingers as extensions that run out from tumors. IMRT is administered first because it draws those extensions back into the heart of the tumor, thus making the subsequent seed implants targeted to tumors more effective in eradicating the cancer.

DECATUR, GEORGIA

Another treatment center, Radiotherapy Clinics of Georgia (RCOG), also administer both seed implants and IMRT as part of their procedure. However, as I understand, they administer the seed implants first, and follow-on with IMRT; possibly/probably for the same reasoning as explained above. RCOG uses Iodine-125 seed implants. This center also claims to have an excellent success rate confirmed by many patients from their personal experience. Here is contact info: - Dr. Frank Critz, Radiotherapy Clinics of Georgia (RCOG), Decatur, GA www.rcog.com (Specializing in ProstRcision).

CHICAGO, ILLINOIS

Dr. Stanley Liawu, University of Chicago on Southside of City, Telephone 773-702-6870. His nurse Denise will require answers to several questions prior to assigning an appointment date/time. IMRT/IGRT with Tomotherapy used.

CALIFORNIA

- Dr. John Stevenson at the Arnold Palmer Prostate Cancer Center/Eisenhower Hospital in Rancho Mirage. CA

ARIZONA

- Dr. Scott E. Tropper, 7340 E Thomas Rd, Scottsdale AZ, Phone: 480-945-6896

- Dr. David Beyer, 8994 E. Desert Cove, Scottsdale, AZ, Phone 602-274-4484

SEATTLE, WASHINGTON

- Dr. Peter Grimm, Seattle Prostate Institute, Phone 206-215-2480

<http://www.seattleprostateinst.com:80/>

SILVER SPRING, MARYLAND

- Dr. Dan Clarke, Maryland Regional Cancer Care (MRCC), 2121 Medical Park Dr., Suite 4, Silver Spring, MD 20902, tel: 301-681-4422, email:

dclarke@mrcnet.com, website:

<http://www.marylandcancercare.com/silverspring.htm>

About Seeds: Permanent seed implants involve injecting approximately 100 radioactive seeds into the prostate gland. They give off their radiation at a low dose rate over several weeks or months, and then the seeds remain in the prostate gland permanently. Usually one of three type of seeds are implanted: Cesium 131 provides 90% of its total dosage in just 33 days and has a half life of just 9.7 days; Palladium 103 provides 90% of its total dosage in 58 days and has a half life of 17 days; and Iodine 125 provides 90% of its total dosage in 204 days and has a half life of 60 days.

NOTE: When being scheduled for brachytherapy seed implant with any physician, ascertain if stranded-seeds or loose seeds are being implanted. With stranded-seeds there is less chance of seed migration. Seed migration can result in ineffective radiation therapy with missed tumors remaining active as well as damage to adjoining tissue.

Every patient considering Brachytherapy seed implant should insure that their administering physician provides a thorough explanation of the procedure, the type of seeds to be implanted, are they single or stranded seeds, the manner in which he provides his protocol (IMRT then seeds, or vice versa, or only seeds and if so why?), and every side effect that you, as the patient, might encounter. If treatment is to be administered at a teaching facility, make certain that only your physician will be administering the procedure.

Of special note for consideration:

[Additional evidence of the value of brachytherapy + EBRT + ADT in high-risk patients](#)

Posted on July 14, 2009 by The Prostate Cancer InfoLink Sitemaster

Earlier today we reported data from [a series of patients treated by Stock et al.](#) with brachytherapy + external beam radiation therapy (EBRT) + androgen deprivation therapy (ADT). According to [a HealthDay report published in Forbes](#) magazine, a second paper appears to endorse the findings of Stock and his colleagues.

[D'Amico et al.](#) have reported on data from 1,342 men with a PSA level > 20 ng/ml, clinical T3 or T4 disease, and/or a Gleason score of 8 to 10. All patients received brachytherapy. They then estimated the risk of prostate cancer-specific mortality after brachytherapy alone or in conjunction with androgen deprivation therapy (ADT), external-beam radiation therapy (EBRT), or both in this high-risk population. It should be clearly pointed out, however, that this study reports retrospective analysis of data from several patient series, and is **not** data from a randomized clinical trial.

They showed that, despite higher baseline probabilities of prostate cancer-specific mortality, after a median follow-up of 5.1 years:

- There was a significant reduction in the risk of prostate cancer-specific mortality in men treated with brachytherapy + ADT + EBRT as compared with neither.
- When compared with brachytherapy alone, a significant decrease in the risk of prostate cancer-specific mortality was **not** observed in men treated with either supplemental ADT or EBRT.
- There was a near-significant reduction in the risk of prostate cancer-specific mortality in men treated with tri- as compared with bimodality therapy.

The authors conclude that, “Supplemental [ADT] and EBRT but not either supplement compared with brachytherapy alone was associated with a decreased risk of prostate cancer-specific mortality in men with high-risk prostate cancer.

“Despite the increasing numbers of men worldwide who choose to undergo brachytherapy alone for their high-risk prostate cancer, the evidence supporting this treatment method alone based on survival data from randomized trials is lacking,” Dr. Anthony D’Amico stated in a news release from Brigham & Women’s Hospital in Boston.

“In order to get the highest cure rate for men with high-risk prostate cancer, it appears that 5 weeks of external beam radiation and at least 4 months of hormonal therapy should be added to brachytherapy,” he added. BUT, please note the

following regarding the appropriate length of added androgen deprivation therapy (ADT) following External Beam Radiation should the presence of certain apoptotic/cell proliferation proteins be determined:

“A Tissue Biomarker-Based Model That Identifies Patients with a High Risk of Distant Metastasis and Differential Survival by Length of Androgen Deprivation Therapy in RTOG Protocol 92-02

These tissue biomarkers – apoptotic/cell proliferation proteins Ki-67, MDM2, p16 and Cox-2 - were jointly associated with distant metastasis. Take the time to read and be aware.

These biomarkers contributed significantly to a model that predicted distant metastasis and identified a subgroup of patients at a particularly high risk of both DM (Distant Metastasis) and PCSM (Prostate Cancer-Specific Mortality) when External Beam Radiation Therapy plus Short Term Androgen Deprivation Therapy (EBRT + STADT) was used. On the other hand, EBRT plus Long Term Androgen Deprivation Therapy (EBRT + LTADT) resulted in significant reductions in distant metastasis and improvements in prostate cancer-specific mortality.

<http://www.ncbi.nlm.nih.gov/pubmed/?term=25294917>”

SPECIAL NOTE TO BE AWARE: From The “New” Prostate Cancer InfoLink for those considering radiation as the treatment option for their prostate cancer:

"There is a widespread misunderstanding that radiation therapy as a treatment for localized prostate cancer will allow the patient to have or recover normal ejaculatory function after treatment. Let us be *very* clear that this is *not* usually the case at all."

Read more: <http://tinyurl.com/bmygmc3>