

DIFFERENCES IN PROSTATE CANCER SEED APPROACHES

By: Gil Lederman, M.D.

It is always a challenge for men and their families to evaluate prostate cancer data. A major question for men is choosing therapy. Most choose treatment based upon data yet often this information is difficult to compare. I like to present our data in comparison to other centers. That allows the differences to be visualized, intellectualized and treatment decisions to be based upon actual expected outcome.

For a disease as common as prostate cancer, it certainly makes sense to approach treatment options in this manner. I was recently asked about why one should select one facility over another facility. I strongly believe that experience, technology and approach make a difference. Just because a place performs a particular kind of treatment doesn't make that center equivalent to any other facility.

We try not to cut any corners, that means using full doses of seeds, selecting palladium seeds to minimize side effects to the adjacent bladder and rectum as well as having a shorter half-life of radiation. This means more safety in general to the surrounding area. We utilize a dedicated suite where fluoroscopy and ultrasound are simultaneously used for seed placement resulting in better seed delivery and therefore medical outcome. In the operating room the seeds are placed with real time computer planning so that the dosimetry or treatment plan is available during the placement of the radioactive seeds. That way we are less likely to regret having placed or not placed seeds in a particular area. This should produce better outcome than in the days when current such technology was not available. In fact, recent technologic improvements have made seed treatment safer than ever.

Furthermore, avoidance of the area around the bladder and rectum should minimize complications there. There is always a risk of side effects when the proximity of the bladder and rectum are so close. This technology is combined with body radiosurgery, which is a stereotactic frame-based method of 25 radiosurgery treatments usually following seed placement for maximal biologic effect.

This technology allows highly accurate placement of the patient's body in a rigid accurate non-invasive stereotactic frame and thus quite exact delivery of treatment.

When asked to compare our results to an Upper East side Manhattan Hospital's by a prospective patient, we did so with enthusiasm. The Mt. Sinai Hospital's prostate seed program grouped their patients into three risk groups including low risk involving PSA 10 or less, Gleason 6 or less, and clinical stage T1A or less.

Moderate risk group patients were called those with a PSA greater than 10, Gleason score greater than 6, or clinical stage T1B or greater.

The high risk patients were those with PSA greater than 15, or Gleason 8 or greater, or clinical stage T1C to T1D or positive seminal vesicle biopsy.

Their low risk group patients were followed from one to seven years with a median of 18 months. There were nine patients followed for four years and their four year disease-free survival was 91%. In comparison our median follow-up was more than twice that at 43 months with 4 1/2 times more patients followed at four years and a higher disease-free survival of 97% for patients treated at by our doctors.

For the moderate risk group patients at Mt. Sinai, the patients were followed up to 74 months with a median follow-up of 27 months. Twenty one patients were followed at 4 years having also neo-

adjuvant hormone treatment. Their disease-free survival was 85%. 'Seeded' patients with no hormonal therapy had a disease-free survival of 58%.

The extrapolated four year disease-free survival was 72%. This compared to 91% at Radiosurgery New York for patients with the same risk features. Yet at Staten Island University Hospital the range of follow-up was up to 81 months. Our median follow-up was nearly twice as great at 47 months and more than twice as many patients were followed at 4 years.

For those patients with Gleason 7 or greater treated going through the seed program at Mt. Sinai the four year disease-free survival was 72% versus 89% with us. Furthermore, at four years we had more than three times as many patients out to be analyzed. Thus, here there are more patients treated, analyzed - and best of all - a greater percentage free of cancer.

In the high risk patients, 40 patients with that criteria defined by Mt. Sinai, there were 149 patients in our group. Follow-up ranged to 42 months at Mt. Sinai while in our group, it was up to 99 months. Their median follow-up was 13 months with ours being 47 months!! Only two patients at Mt. Sinai were available for analysis at three years. Yet, we had 93 patients at the same point - 45 times more.

Furthermore, their three year disease-free survival was 71% compared to our 79% - a greater than 10% improvement with many more patients followed, treated and available for analysis.

This comparison data would suggest that patients going through the seed program at Radiosurgery New York are more likely to be free of cancer - even when treated with seeds plus radiation program. Importantly, we have many more men followed a much longer time - reflecting a greater experience.

We have previously compared our seed/radiation prostate cancer to radical prostatectomy results for the most prestigious hospitals in the nation. Yet, in every category our results are superior to radical surgery. This data should give confidence to those selecting seeds plus body radiosurgery for prostate cancer treatment.

For men with prostate cancer, seeds offer a markedly less invasive approach maintaining urinary and sexual function in the majority. Furthermore this approach is done as an out-patient avoiding the risks of open surgery and its associated convalescence.

Seeds plus body radiosurgery offer the best chance of cancer-free survival based upon data presented here and previously in this space. For all men early diagnosis allows the best possibility of cancer-free survival. The lower the P.S.A. (prostate specific antigen) initially the better the results. Yet, for all men with prostate cancer, this approach merits consideration.

Our data continues to mature. That we have been practicing combined seeds plus body radiosurgery for years means more experience and longer term data than many other centers. Every man with prostate cancer has a chance to evaluate outcome before treatment is started. This is prudent.

The beauty of our program is our interaction with our patients and families. We encourage patients to come to our free seminars to meet the physicians in an informal setting and learn about treatment options and results. We also have a hot line at 212-CHOICES and also questions can be e-mailed to gil.lederman@rsny.org. We try to provide our best information in 'comparison' form to those with prostate cancer and also have an informative videotape or CD available.