This was a great way to kick off a new year! 110 attended the presentation of 3 doctors highly recognized in their specialty.

Recap of Feb 18, 2017 Meeting by Bill Lewis

Advances in Radiation Therapy for Prostate Cancer: The State of the Art in 2017

Dr. Arno J. Mundt, Chairman of the Dept. of Radiation Medicine and Applied Sciences at UCSD

(Continued on page 2)
A man newly diagnosed with prostate cancer today is faced with countless treatment options and conflicting information on the effectiveness and side effects of these options. This can lead to anxiety about making a mistake and even to “decision paralysis.” A profoundly important randomized study, the “ProtecT” trial in the UK, was just published in October. Over 82,000 men ages 50-69 underwent PSA screening starting in 1999, and about 2600 were diagnosed with localized prostate cancer. Of these, 1643 agreed to be treated with one of three protocols by random assignment. So about 550 men each were treated with surgery, radiotherapy, or were kept on “active surveillance.” About half of those under surveillance eventually had surgery or radiation either because their disease progressed or because they became fearful about continuing on surveillance without active treatment. All the men in the three arms of the study were followed for ten years.

Results: Less than 1.5% of the men in any arm of the study died of prostate cancer in the ten years. This confirms how relatively non-fatal this disease is. About 10% of the men in each arm of the study died from any cause during the ten years. So, in the aggregate, the men were vastly more likely to die from something else instead of from prostate cancer.

Not surprisingly, those under active surveillance had more “disease progression” (as defined in the talk and the published paper, and including metastases) than those who had surgery or radiation right away. But by waiting until such active treatment was called for by disease progression, these men avoided for many years the side effects that are entailed by active treatment. And, as indicated in the last paragraph, they were no more likely to be dead within ten years than those in either of the other groups.

Between the two active-treatment groups -- surgery (prostatectomy) and radiotherapy -- there was “no statistically significant difference in 10 year outcome.”

Patients in the trial completed regular quality-of-life questionnaires on urinary, bowel, and sexual function effects on their quality of life, including anxiety and depression. There was “no difference in physical health score, mental health score, anxiety or depression between arms.”

Dr. Einck noted that the radiation treatments used for prostate cancer have improved in several ways since the era in which the ProtecT patients were treated, and perhaps the quality of life outcomes for radiotherapy would now be better. These improvements include higher doses, image guidance, and the addition of brachytherapy (radioactive seeds). On the other hand, there have also been advances in surgery, such as to avoid damage to nerves.

There are now many types of radiotherapy, and these were discussed: External Beam (Protons; Photons, including conventional “4-field box,” 3D conformal, IMRT and IGRT; Cyberknife and Tomotherapy) and Brachytherapy (Low Dose Rate using radioactive Iodine, Palladium or Cesium, or High Dose Rate using Iridium). Many of these are simply platforms for doing the same thing -- delivering high doses of radiation. Summaries of randomized studies were shown, in which the effects of the dose were determined. Better “cure” was consistently obtained with higher doses of radiation, whether for low, intermediate or high-risk prostate cancer. However, higher doses gave more “toxicity,” especially in the rectum, where bleeding might be serious enough to require treatment with a laser or with medication. [Note that SpaceOAR gel, which is now available, may help to avoid damage to the rectum – at a cost of $3-4,000.]

Some history of radiation therapy for prostate cancer: In the 1980’s, rectal ultrasound technology improved brachytherapy outcomes, because seeds could be placed much more precisely. In the 1990’s, external beam radiation was done without the benefit of CT guidance. There was no ability to image the prostate for daily treatment localization (to correct for the prostate shifting around slightly in the body).
So, treatments were given in lower doses than now, but with large margins that were helpful for cure, but gave a substantial risk of bladder/rectal damage. Overall cure rates, defined in terms of keeping a low PSA for 10 years following treatment, were only 42-61% at three major treatment centers. (The same slide showed that radical prostatectomies were giving 10-year cure rates of 52-74%.)

In 1990, a proton therapy center opened at Loma Linda. This gave the ability to do prostate immobilization/image guidance, and allowed higher doses of radiation and smaller margins.

In 1996, Memorial Sloan Kettering pioneered the use of IMRT on patients with prostate cancer. This gave the ability to shape the region of high dose and improve rectal avoidance, but it was not able to provide daily image guidance. In the 2000’s, image guidance techniques were developed, involving X-rays (using implanted gold pellets), cone beam CT, or ultrasound.

Fractionation is a term referring to the number of treatments an overall dose of radiation is divided (fractionated) into. Conventional IMRT/Protons/Tomotherapy uses 40-45 treatments, usually five days per week. Hypofractionation gives the same overall dose in 28 days. Extreme hypofractionation, in as little as five days total, is called SBRT or Cyberknife. Common side effects and their occurrence rates were reviewed in the talk.

A major question: Are certain platforms better able to cure the disease while limiting side effects to normal tissues? Answer: NO EVIDENCE OF THIS! Advertisements for IMRT, Proton Therapy, Cyberknife, and Tomotherapy all claim to be advanced, precise, etc. but the net results are practically the same. Regarding IMRT vs. Proton Therapy, the latter is generally restricted to treating from the side, and the high-dose area (with risk of side effects/toxicity) is actually LARGER with protons. There appear to be as many studies supporting the idea that Proton Therapy is an improvement (as to toxicity to non-target organs) as those suggesting it gives worse results than IMRT. However, it is much more expensive: about $32,500 vs. about $18,500.

Cyberknife is giving encouraging results, but follow-up is only 5 years so far, in published studies. Patients with preexisting urinary issues should avoid it, as those issues get worse.

Tomotherapy is another way of doing IMRT, on slightly different equipment. Capabilities, effectiveness and toxicity (side effects) are similar to other forms of prostate radiation given in 28-45 sessions.

In summary: A fancy machine does not give better results. A more expensive therapy does not give better results. Therapies not covered by insurance don’t give better results. New therapies (so far) don’t give better results. The reality is that all these machines deliver exactly the same thing: radiation. They differ in how they do it, but the effect on prostate cancer is likely similar.

Brachytherapy (radioactive seed implant) is one of the most effective, least toxic forms of radiation therapy. Its popularity has waned because of lower reimbursement to the doctors who should be recommending it, and inconvenience because of the need for an operating room, compared to external beam radiation, but this should not suggest lack of efficacy. It allows a much higher dose to the cancer, without affecting surrounding tissues (except temporary irritation to the urinary tract). The ASCENDE-RT trial, presented at a conference two years ago, showed the results for intermediate and high-risk patients who got external beam radiation, with or without brachytherapy to boost the dose in the critical area. After 9 years, 88% vs 62% were disease free if they received the seeds. This approach is now commonly used at UCSD – although there is a slightly increased risk of urinary problems.

Some future strategies for prostate cancer radiotherapy were previewed by Dr. Rose. Advanced MRI imaging, called RSI MRI, may help guide treatment and assess results. So a boost in radiation may be given to a large nodule in the prostate, or vasculature structures at the base of the penis which are important for sexual function can be better imaged and avoided. These imaging improvements may permit reduc-
tion or avoidance of anti-testosterone therapy.

In opening the Q & A session, George Johnson noted that urologists are surgeons and will very frequently recommend prostatectomies. But typically, the cancer returns within two years. Radiation typically gives a longer remission (ten years in his own case). “Partin” tables provide a prediction of whether the cancer is metastatic, based on initial numbers such as PSA and Gleason score. In his case, the prediction was a 65% chance the cancer was already metastatic, so surgery was not attractive to him. He strongly recommends that newly diagnosed men get opinions from both their urologist and a radiation oncologist.

Is it better to do surgery first, and then (salvage) radiation on recurrence, or start with radiation? Radiation can be very helpful on recurrence after surgery. It is more challenging to treat again after prior radiation, BUT the patient is less likely to need such re-treatment after initial radiation. It’s good to get a scan when the cancer recurs, such as an 11-C choline or acetate scan, to be sure where the cancer is growing. Most often, it is outside the prostate, and then there is “no problem” with having additional radiation (since the prostate is not retreated). NOTE: UCSD will soon be able to do 11-C PET scans!

Brachytherapy was initially used for (and is very effective for) low- and intermediate-risk disease. Now it has also been found to be helpful for higher-risk (non-metastatic) disease, as explained in the talk. Typically, 25-30 needle insertions, each placing 2-5 radioactive seeds, would be made. There are significant (urinary) side effects for six months, but fewer side effects overall vs. surgery or external beam radiation. It is not likely to be used on only one side of the prostate, because of the likelihood that there are small cancers on both sides. For the higher-risk disease, brachytherapy alone is not used, because a larger dose outside the prostate “capsule” and in the seminal vesicles is usually needed. This is supplied by the external beam radiation.

Differences in LDR vs. HDR in brachytherapy: Mainly a matter of patient convenience and choice. LDR requires only a single hospital visit. Dr. Demanes at UCLA does HDR with an overnight stay, and three treatments each day. LDR seeds are now stranded together, so they don’t “float” as happened in the 90’s.

The abbreviation “bRFS” occurs in some data tables shown. This is “biochemical relapse-free survival,” defined as the time until the PSA rises two units above its lowest level.

Dr. Mundt at UCSD and Dr. Rossi at Scripps coordinate and collaborate, and don’t compete (although their upper management may!). Medicare covers Proton Therapy, but not all insurance companies do.

Use of radiation for metastases: Traditionally, radiation was used only to treat painful spots. But now, other spots found by scans may also be treated, if there are not too many of them. Also, irradiating one or two spots can boost the effectiveness of immunotherapy. Preferably, these would be spots away from other vital organs (so the prostate would not be a good choice for this), that are then irradiated with an intense, stereotactic, Cyberknife type treatment that would “explode” or dissolve the tumor(s) targeted. Currently, such treatment is only available as part of a clinical study.

It was noted that with regard to new imaging techniques, the talk given to this group last August by Wolfgang Fendler gave an in-depth presentation about PSMA imaging. There was no newsletter summary, but the dvd is available.

. DVD’s of the meeting will be available by the next meeting date via the website: www.ipcsog.org/shop or from the library at the next meeting. Slides are included in a file on the DVD.
FUTURE MEETINGS

February 18 - Round Table. A panel of members talk of their experiences followed by Q&A, then breakout sessions by treatment type for networking.

March 18. We are planning to schedule a meeting on targeted biopsies. Watch for notice of verification.

ON THE LIGHTER SIDE

A Funny Thing Happened on the Way to the Cancer Clinic

Funny stuff happens when you have cancer. Seriously.

Take last winter, when I was in the middle of hormone therapy and radiation for an aggressive case of prostate cancer. One of my relatives came by the house and said: “You know, if you need any weed to get you through this, I know where to get it.”

After politely declining — I was truly and deeply touched — I just cracked up. The laughter and the tears made me feel better than any amount of marijuana would have. All I could imagine was this relative getting busted and then pleading, “But, officer, I’m getting this for a guy who has cancer.”

The classic family one-liner that stems from me having cancer is this one: “You take the dog out. I have cancer.” That soon morphed into infinite variations, along the lines of: “Can I sit in that chair? I have cancer;” or “Do you mind switching from HGTV to the Patriots game? I have cancer.”

So, please, read this post and e-mail it to a friend. I had cancer.

There’s a part of me that would like nothing better than to do cancer stand-up comedy — please cue up a neurotic, put-upon Rodney Dangerfield voice:

So, there I am, half-naked in a dimly-lit room, my feet are bound, and cool female hands

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are manipulating my body. Yeah, it was great. I was getting prepped for the radiation machine.

Or there was this moment.

You know, a funny thing happened on the way to the cancer institute this morning. Just a quarter-mile from the institute, my wife and I got stuck in traffic behind a truck … a casket truck from the “Batesville Casket Company.” At least it wasn’t following me … with vultures on top.

**INTERESTING ARTICLES**

**Hormonal Drug May Extend Men’s Lives if Prostate Cancer Returns**

Dr. David Samadi comments on a recent study finding combination therapy of both radiation and hormonal drug can reduce the death rate from prostate cancer in half, when compared to radiation by itself.

http://www.prweb.com/releases/2017/02/prweb14048304.htm
(PRWEB) February 07, 2017

An almost 20 year study funded by the United States National Cancer Institute and AstraZeneca and published in the New England Journal of Medicine found that survival rates improved in men who had a recurrence of prostate cancer when treated with both radiation and a testosterone-suppressing drug helping to extend their lives.

“This study concurs with what has been found with other newer hormonal medications known as gonadotropin-releasing hormone agonists,” stated Dr. David Samadi. “Other studies have found that combining radiation with a hormonal-based drug does lengthen the survival time for most men. This study is unique in two ways. One, it’s length and two, the fact that it is the first to show that adding hormonal therapy along with radiation can extend some men’s lives if their levels of prostate-specific antigen or PSA begin to rise indicating that the cancer may be returning.”

The study which began in 1998 used a hormonal drug called bicalutamide (Casodex). There were 760 men who had undergone prostatectomy with a lymphadenectomy with prostate cancer. The men were randomly assigned either bicalutamide or a placebo pill every day for two years along with undergoing 6.5 weeks of radiation.

Findings from the study showed that after 12 years, a little over 76 percent of men who had received radiation and bicalutamide were still living compared to just over 71 percent of men who only used radiation but not the hormonal drug. A little over 13 percent of the men who had taken the placebo had died of prostate cancer compared to almost 6 percent of men who had taken bicalutamide.

“Another finding from this study was men who had a low PSA level less than 0.7 or a
Gleason score below 7 upon starting the trial, getting hormonal therapy had no effect on the survival rate of those men,” said Dr. Samadi. “This information can help a urologist like myself to assess which men will gain the most benefit from using hormonal therapy or which men it could be needlessly overtreating.”

The hormonal therapies can have potential side effects of reduced sex drive or erectile dysfunction. This is why the study authors stressed that men who would not gain much in terms of extended life may want to carefully weigh their options on making decisions when it comes to using hormonal therapies.

“Basically this study is giving men another option when it comes to possibly boosting survival rate after a prostate cancer recurrence,” explained Dr. Samadi. “Prostate cancer is generally a slow-growing cancer with it typically confined to the prostate gland in most men. For those men who have prostate cancer that returns, this option looks to be a viable one but must be thoroughly discussed with their urologist so as to know and understand completely the side effects and what that entails. I want to give and treat men with the best medical treatment they require and deserve to increase not only the quantity of life but also the quality.”

Patients newly diagnosed with prostate cancer can contact world renowned prostate cancer surgeon and urologic oncologist, Dr. David Samadi. For a free phone consultation and to learn more about prostate cancer risk, call 212-365-5000.

New Type of PET Imaging Identifies Primary and Metastatic Prostate Cancer

Posted on February 5, 2017 by cookwithkathy

In the featured article from the February 2017 issue of The Journal of Nuclear Medicine, researchers document the first-in-human application of a new imaging agent to help find prostate cancer in both early and advanced stages and plan treatment. The study indicates that the new agent—a PET radiotracer—is both safe and effective.

The new agent is a gallium-68 (Ga-68)-labeled peptide BBN-RGD agent that targets both gastrin-releasing peptide receptor (GRPR) and integrin αvβ3. Dual-receptor targeting provides advantages over single-receptor targeting by allowing tumor contrast when either or both receptor types are expressed, improving binding affinity and increasing the number of effective receptors.

Approximately one in seven men will be diagnosed with prostate cancer in his lifetime. In 2017, the American Cancer Society estimates that there will be more than 161,000 new
prostate cancer cases in the United States and around 27,000 deaths from the disease. “Although treatable at the early stage, prostate cancer is prone to metastasis,” explain the team of authors, led by Xiaoyuan Chen, senior investigator, Laboratory of Molecular Imaging and Nanomedicine at the U.S. National Institute of Biomedical Imaging and Bioengineering. “An effective and specific imaging method of detecting both primary and metastatic lesions is thus of critical importance to manage patients with prostate cancer.”

This study included 13 patients with prostate cancer (four newly diagnosed and nine post-therapy) and five healthy volunteers. Ga-68-BBN-RGD PET/CT detected 20 bone lesions in seven patients either with primary prostate cancer or after radical prostatectomy. The patients with bone metastases did not necessarily have an elevated prostate specific antigen level. “This result is better than bone scanning with MDP,” Chen notes, referring to the most common radiotracer used today. “MDP bone scans are sensitive but lack specificity because localized skeletal accumulation of Tc-99m-MDP can also be observed in the case of trauma and infection.” No adverse side effects were found during the whole procedure and two-week follow-up, demonstrating the safety of Ga-68-BBN-RGD.

“Compounds capable of targeting more than one biomarker have the ability of binding to both early and metastatic stages of prostate cancer, creating the possibility for a more prompt and accurate diagnostic profile for both primary and the metastatic tumors,” explains Chen.

Looking ahead, Chen says, “Ga-68-BBN-RGD could play an additive role in staging and detecting prostate cancer and provide guidance for internal radiation therapy using the same peptide labeled with therapeutic radionuclides.” He points out that larger-scale clinical investigations are warranted.

Source: Society of Nuclear Medicine and Molecular Imaging

Read also:
Shape of prostate and compartments within may serve as cancer indicators . . . .
https://www.sciencedaily.com/releases/2017/02/170201121543.htm

For further reading:
NETWORKING

The original and most valuable activity of the INFORMED PROSTATE CANCER SUPPORT GROUP is “networking”. We share our experiences and information about prevention and treatment. We offer our support to men recently diagnosed as well as survivors at any stage. Networking with others for the good of all. Many aspects of prostate cancer are complex and confusing. But by sharing our knowledge and experiences we learn the best means of prevention as well as the latest treatments for survival of this disease. So bring your concerns and join us.

Please help us in our outreach efforts. Our speakers bureau consisting of Lyle LaRosh, Gene Van Vleet and George Johnson are available to speak to organizations of which you might be a member. Contact Gene 619-890-8447 or gene@ipcsg.org to coordinate.

Member and Director, John Tassi is the webmaster of our website and welcomes any suggestions to make our website simple and easy to navigate. Check out the Personal Experiences page and send us your story. Go to: http://ipcsg.org

Our brochure provides the group philosophy and explains our goals. Copies may be obtained at our meetings. Please pass them along to friends and contacts.

Ads about our Group are in the Union Tribune 2 times prior to a meeting. Watch for them.

FINANCES

We want to thank those of you who have made special donations to IPCSG. Remember that your gifts are tax deductible because we are a 501(c)(3) non-profit organization.

We again are reminding our members and friends to consider giving a large financial contribution to the IPCSG. This can include estate giving as well as giving in memory of a loved one. You can also have a distribution from your IRA made to our account. We need your support. We will, in turn, make contributions from our group to Prostate Cancer researchers and other groups as appropriate for a non-profit organization. Our group ID number is 54-2141691. Corporate donors are welcome!

If you have the internet you can contribute easily by going to our website, http://ipcsg.org and clicking on “Donate” Follow the instructions on that page. OR just mail a check to: IPCSG, P. O. Box 4201042, San Diego CA 92142
Directions to Sanford-Burnham-Prebys Auditorium
10905 Road to the Cure, San Diego, CA 92121

Take I-5 (north or south) to the Genesee exit (west).
Follow Genesee up the hill, staying right.
Genesee rounds right onto North Torrey Pines Road.
**Do not turn into the Sanford-Burnham-Prebys Medical Discovery Institute or Fishman Auditorium**

Turn right on Science Park Road. Watch for our sign here.
Turn Left on Torreyana Road. Watch for our sign here.
Turn Right on Road to the Cure (formerly Altman Row). Watch for our sign here.