Informed Prostate Cancer Support Group Inc.
"A 501 C 3 CORPORATION ID # 54-2141691"

MAY 2021 NEWSLETTER

P.O. Box 420142 San Diego, CA 92142
Phone: 619-890-8447 Web: http://ipcsg.org

Saturday, May 15, 2021

Volume 14 Issue 05

- **Saturday, May 15, 2021 IPCSG - Live-Stream Event, 10:00am PT**

Bernadette Greenwood will be returning to give an update on oncologic imaging and prostate MRI and MR-guided intervention.

- Due to COVID-19, no in-person meetings at the Sanford Burnham Prebys Medical Discovery Institute will take place until further notice. This meeting will be live-streamed and will also be available on DVD.
- **For further Reading: https://ipcsg.blogspot.com/**
- **For Comments, Ideas and Questions,** email to Newsletter@ipcsg.org

April 2021 Informed Prostate Cancer Support Group Meeting
Summary by Bill Lewis

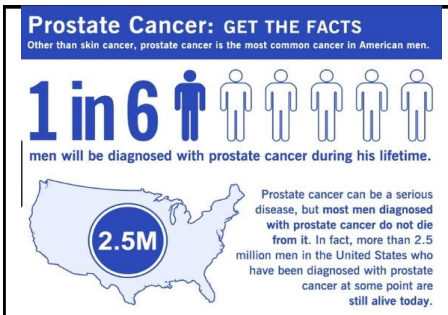
Prostate MRI 2021: Is **GAD** Bad? Does **GAD** Add?
Do You Like Your Scan With **GAD**?

Ross E. Schwartzberg, MD - **Imaging Healthcare Specialists** (since 2006) **–** He is a board-certified Neuroradiologist. He earned his medical degree from the University of Arizona, College of Medicine in Tucson, Arizona. He performs diagnostic and therapeutic image-guided injection procedures. His areas of particular clinical interest include all aspects of Neuroradiology, Head and Neck Imaging, Oncology, and Chest Hi-Res CT.

The utility and value of Gadolinium contrast agent in MRI scanning vs. its risks is controversial, and this talk was intended to identify and discuss those issues.

What we are doing and why we think it is of value. The traditional elevated-PSA-to-12-core-biopsy pathway is blind to the whereabouts of any tumors, and often finds clinically insignificant tumors (or none) rather than the lethal tumor(s). Prostate cancer is the only solid-organ tumor that is typically biopsied

(Continued on page 3)



Organization

a 501c3 non-profit organization - all positions are performed gratis

IPCSG

Officers

Lyle LaRosh President

Additional Directors

Gene Van Vleet

John Tassi

Bill Manning

Honorary Directors

Dr. Dick Gilbert

Judge Robert Coates

Aaron Lamb, ... Facilitator
Bill Manning, ...Videographer
John Tassi, ...Webmaster
Bill Bailey, ...Librarian
Jim Kilduff, ...Greeter
John Tassi .....Meeting Set-up
Stephen Pendergast ..... Editor

NEWSLETTER
Table of Contents

PROSTATE CANCER—*2 WORDS, NOT A SENTENCE*

What We Are About

Our Group offers the complete spectrum of information on prevention and treatment. We provide a forum where you can get all your questions answered in one place by men that have lived through the experience. Prostate cancer is very personal. Our goal is to make you more aware of your options before you begin a treatment that has serious side effects that were not properly explained. Impotence, incontinence, and a high rate of recurrence are very common side effects and may be for life. Men who are newly diagnosed with PCa are often overwhelmed by the frightening magnitude of their condition. Networking with our members will help identify what options are best suited for your life style.

Meeting Video DVD's

DVD's of our meetings are available for purchase on our website at https://ipcsg.org/purchase-dvds and are generally available by the next meeting date.

From the Editor

Due to COVID-19, no in-person meetings will be held until further notice. Our speaker this month will be broadcast via the IPCSG website at https://ipcsg.org/live-stream and can be watched by scrolling down and clicking on the "WATCH THE PRESENTATION" button. The broadcast will begin approximately 10 minutes before to the listed start time.

We will continue to post and distribute the newsletter in the interim.

Articles of Interest

Scientists launch search for genetic test to spot killer prostate cancer

Stereotactic body radiotherapy for oligoprogressive lesions in metastatic castration-resistant prostate cancer patients during abiraterone/enzalutamide treatment

First of six FREE webinars on making well-informed prostate cancer decisions

Clinical outcomes, management, and treatment patterns in patients with metastatic castration-resistant prostate cancer treated with radium-223 in community compared to academic settings - Sartor - - The Prostate - Wiley Online Library:

Current and Emerging Clinical Applications of PSMA PET Diagnostic Imaging for Prostate Cancer

What level of evidence will it take to move towards widespread adoption of transperineal prostate biopsy in the USA?

Join the IPCSG TEAM

If you consider the IPCSG to be valuable in your cancer journey, realize that we need people to step up and HELP. Call **President** Lyle LaRosh @ 619-892-3888; or **Director** Gene Van Vleet @ 619-890-8447.

(Continued from page 1)

without "true" image guidance! The traditional TRUS (trans-rectal ultrasound-guided) biopsies, where the ultrasound only shows where the prostate is, not where the tumors are, leads to missing 21-47% of clinically important cancers, finding clinically unimportant (indolent) cancers 40% of the time, and misclassifying clinically important cancers as unimportant 40% of the time.

Prostate MRI allows us to see the clinically significant tumors in the prostate and avoid the insignificant ones. Based on numerous recent studies, a recommendation was issued last year for MRI before biopsy in all men (with suspected disease) who have not yet had a biopsy, as well as in men with rising PSA after an initial negative standard prostate biopsy. A caveat was that the MRI imaging needs to be of high quality, and well interpreted.

When we refer to multi-parametric MRI, this includes three parameters: a T2 parameter that shows anatomy (i.e., prostate zones), a Diffusion parameter that shows cellular density (close packing), and a DCE parameter (dynamic contrast enhancement) that shows the angiogenesis (increased-but-leaky blood supply) in tumors with the aid of a "contrast agent," gadolinium (GAD). You may also see the terms T2WI (T2-weighted imaging) and DWI (diffusion-weighted imaging).

In December 2017, the FDA warned that gadolinium contrast agents are "retained" in the body, and that new warnings were warranted. Back in 2006 it was realized that patients with renal failure who received multiple doses of GAD were developing devastating "nephrogenic systemic fibrosis." This consequence was essentially eliminated by avoiding giving GAD to patients with chronic renal failure. It was later found that GAD accumulates in the "dentate nucleus" of the cerebellum, and in the basal ganglia, increasing with repeated usage of the agent in a patient. Certain types of GAD agents were found to result in orders-of-magnitude less accumulation than the "linear" ones, so these "macrocyclic" versions of the contrast agents have instead been adopted.

Over 450 million patients have been given GAD, with no reports that the brain deposits are associated with histologic changes or neurotoxicity. In many patients, GAD provides crucial life-saving information. But each time a GAD study is considered, it is prudent to consider the expected clinical benefit of the diagnostic information or subsequent treatment plan that using GAD may provide, against the *unknown* potential risk of GAD deposition in the brain.

Here is an "official" statement about GAD use for DCE-MRI, and a list of research priorities and unresolved questions:

Panel 1: Recommendations

Based on available evidence, as described in this Personal View, the recommendations for the clinical and research use of GBCAs from the International Society of Magnetic Resonance in Medicine (ISMRM) Safety Committee are as follows:

- The ISMRM urges caution in the use of any medical compound, including gadolinium-based contrast agents (GBCAs). Per standard practice, use of GBCAs should be avoided when not necessary. The evidence on gadolinium deposition emphasises but does not alter this practice, and GBCAs should not be withheld from patients with a clinical indication for gadolinium-enhanced MRI. The physician responsible for the administration of a contrast agent should understand the benefits and risks of the agent.
- The clinical indication for which a GBCA is administered, the specific contrast agent used, its dosage, and other pertinent information should be documented in the patient's medical record.

(Continued on page 4)

(Continued from page 3)

Some commercially available macrocyclic agents might deposit less gadolinium than some l.i near agents; however, evidence shows that gadolinium deposition in the brain can also occur after the administration of macrocyclic agents. Evidence suggests differences in gadolinium deposition rates among macrocyclic agents and among linear agents, although some data are discordant. Relaxivity differences between contrast agents and between the potentially deposited chemical species can complicate the interpretation of differences in signal intensity. No evidence shows any harmful effects from the deposition of gadolinium, and therefore whether use of macrocyclic agents should be favoured over linear agents is unclear. When choosing a contrast agent, many factors should be considered, including pharmacokinetics, relaxivity, efficacy, potential side-effects (such as allergic reactions), patient age, probability of the need for repeated examinations, and cost. Institutions should weigh these factors and consider that some agents might have a greater propensity for deposition than others.

Given the importance of GBCAs for advancing scientific discovery and improving clinical care, the ISMRM Safety Committee supports the views of the National Institutes ofHealth,42 in that administration of GBCAs is appropriate in research settings under the guidance of protocols approved by an Institutional Review Board, and that must include patient's informed consent. Because no risks are known to be associated with gadolinium deposition in the brain, the ISMRM is unable to make an overarching recommendation regarding disclosure of gadolinium deposition to research participants. Therefore, each institution must decide whether inclusion of information on the deposition of gadolinium in the brain is necessary and should be included as part of the consent form; if so, the institution must decide on the description to use. The circumstances under which the GBCA is administered, the unknown risks of gadolinium deposition, and the need to explain the deposition to participants in appropriate language should be taken into account. In the event that new data are available describing adverse biological or clinical effects associated with gadolinium deposition subsequent to this Personal View, it might be appropriate to include that information as part of the consent process.

Investigators reporting studies on gadolinium deposition in the brain should exercise meticulous disclosure of financial, consulting, and advising relationships with industries as potential conflicts of interest. Although proper disclosure of conflicts of interest must be done for all academic publications, transparency is particularly relevant for studies of gadolinium deposition.

Due to the potential confounding of disease-related signal intensity changes with gadolinium deposition, future studies should explicitly describe all relevant clinical history of participants, including treatment of the patients in the study.

Panel 2: Research priorities and unresolved questions regarding gadolinium deposition

Does the deposition of gadolinium in the brain cause any adverse effects, and are these effects dose dependent?

What is the incidence and severity of adverse events (or perceived adverse events)?

What is the chemical state and structure of the deposited gadolinium?

What are the relative rates of deposition with each gadolinium chelate? Do dose and relaxivity play a role in the extent of observed signal intensity changes?

(Continued on page 5)

(Continued from page 4)

Are the observed differences in gadolinium deposition between gadolinium-based contrast agents dependent on the agent's class? How do field strength, sequences, and MRI settings used, and agent-dependent differences in Tl relaxivity affect our ability to pool large datasets?

Which groups of patients are more or less susceptible to gadolinium deposition?

How do treatments such as radiation or chemotherapy affect gadolinium deposition?

What is the mechanism of gadolinium deposition in the brain?

Regarding the value of GAD administration in MRI scanning, it does not add anything in cases where the MRI is negative (i.e., PI-RADS scores 1 or 2). Negative mpMRI's account for 30-40% of all intermediate-to-high-risk men. Most MRI scans that are positive for suspected cancer can identify the lesions (size, location) by using T2WI and DWI criteria only. However, there is a role for DCE/GAD (dynamic contrast enhancement using GAD contrast agent) for small cancers that are less obvious or occult (not visible) on T2WI (T2 weighted image) and DWI or when DWI (diffusion weighted image) is degraded by artifact(s). And, note that positive contrast enhancement (from DCE/GAD) can increase "reader confidence" by helping less experienced MRI readers identify real tumor-suspicious lesions.

It is of course possible to run MRI without GAD, and then call back the patient if it appears that DCE/GAD would help. This has been standard practice for breast cancer patients for many years.

Daniel Margolis (was at UCLA, now at Cornell), speaking at a recent PCRI conference, says there may be a risk of using GAD, but there is also a risk of not using it. Particularly in "community" MRI centers, the MRI image quality (without GAD) may not be as good, and the lower available skill in interpreting the scans may lead to erroneous conclusions and treatment protocols.

With respect to "rescue sequences" (i.e., using GAD in a second scanning session), advanced diffusion imaging techniques (e.g., Restriction Spectrum Imaging, developed at UCSD and used at Imaging Healthcare Specialists; see below) can actually better deal with image quality interferences such as from bowel gas, hip prostheses and urolift devices than DCE/GAD scanning.

It is estimated that 80% of GAD administered today has no effect on the final PI-RADS category assignment, and therefore no impact on the clinical decision regarding whether there is a need for biopsy

MRI is not "perfect" for detecting tumors. Besides the issue of inexperienced operators/readers, there are some tumors that just don't show up, even in the "best" scans.

Dr. Schwartzberg is enthusiastic about his 1-1/2 year experience so far with RSI (Restriction Spectrum Imaging), which is a profoundly robust technique that separates restricted diffusion within the cell and within compartments in the cell, from restricted diffusion in the extracellular area between cells. It helps identify geometric distortions, and deals well with bowel gas and bowel motion, giving powerful support to finding aggressive cancers.

Examples where GAD helped or where it was not needed because of RSI were shown and discussed – see the video.

If you omit the use of GAD, it is called biparametric MRI (bi- instead of multi-). A meta-analysis of 2400 patients in 20 papers showed comparable sensitivity and specificity, without clinically or statistically significant differences. In one study at a single center, 94% of the cancers gave identical PI-RADS scores, and the

(Continued on page 6)

other 6% gave scores of 3 instead of 4 if the GAD was not used.

However, use of GAD does play a key role in checking for tumor recurrence after radical prostatectomy, radiation therapy, or focal therapy. DCE/GAD contrast enhancement is the most reliable feature of disease after treatment.

Some conclusions: GAD is not necessary for follow-up AS (active surveillance) after an initial baseline mpMRI (i.e., the Sloan Kettering protocol). The patient should be accommodated if he prefers bpMRI (i.e., without GAD). RSI (advanced diffusion/AI) employed at expert centers allows the option to eliminate GAD without compromising sensitivity and specificity. Caution is recommended regarding non-expert centers adopting the bpMRI protocol.

Questions:

How common is it for a PI-RADS to change from 2 to 5? Not common. There are some differences in scores given by different readers. A targeted biopsy would be appropriate. Probably something was overlooked in the first scan. Dr. Schwartzberg would be willing to look at the scan images.

Please define expert vs. non-expert centers. 300 cases per year is one definition. IHS did 1500 last year. Operator/reader dedication is a factor. There are conferences, focused training sessions, and the availability of experts (like Dr. Schwartzberg) willing to share their time and experience with other doctors. It's very much "effort based."

How about the use of AI? Not yet.

For AS, how often should follow-up MRI's be done, and should it be driven by PSA numbers? With increasing experience with patients on AS, biopsies are now fewer, and the same with MRI's. If your (high-quality) MRI is negative, and PSA density (PSA divided by prostate volume) is low, i.e., below 0.15, every 18 months would be appropriate, unless the PSA started going back up.

How many scans with GAD would be a "considerable" number? It really depends on whether the GAD is adding extra value.

Of 100 incoming patients, how many would typically get GAD? Offering scans with GAD has been the standard practice. But we are now realizing, especially with RSI available, that there are very few cases where GAD offers significant value in prostate cancer.

MRI underestimates the size of tumors, vs. measurements of tumors in prostates that are removed. It's like the MRI is seeing the body of a spider, but not the legs that extend much farther. GAD may show a slightly better measure of the size of the tumor. But again, among thousands of scans, there are very few where GAD use changes his overall assessment of the cancer.

Downsides from coming back for the GAD scan: it does result in a slightly delayed diagnosis. In what percentage of cases would GAD make a difference? The bigger rhetorical question is, "What about less experienced centers possibly ending up with more errors?"

What would be an indication that PSMA-PET scanning is appropriate? MRI is normally used to focus on local staging. PSMA-PET is for whole body scans, in case of suspected metastases. Using a PET agent with MRI is even more powerful – but the equipment is very expensive!

There were 25 live attendees, and many more are expected to view the recording.

We recommend that you watch the video online for more definitive information about the talk and slides: https://www.youtube.com/watch?v=b7UiuDKSHXQ

A DVD of the talk and Dr. Schwartzberg's slides will be available for purchase from the IPCSG next month.

On the Lighter Side

"You'd be surprised if you knew how many people walk out without paying!"

HERMAN® by Jim Unger

"Make sure this one doesn't leave before he pays his bill."

"IF IT WASN'T FOR ME, MOM... MOTHER'S DAY WOULD BE JUST A REGULAR OL' DAY FOR YOU."

"BUT IF EVERYBODY ELSE GETS A FLU SHOT, I WON'T NEED ONE, 'CAUSE THERE WON'T BE ANYBODY TO CATCH IT FROM."

"The doctor said you're lucky it wasn't lower."

Articles of Interest

Scientists launch search for genetic test to spot killer prostate cancer

Robin McKie

Scientists launch search for genetic test to spot killer prostate cancer | Prostate cancer | The Guardian

theguardian.com

Scientists have begun work to create a prostate cancer screening service for the UK. In a few years, middle-aged men could be tested to reveal their genetic susceptibility to the condition, with those deemed to be under significant threat of developing it being offered treatment or surgery.

The service would tackle a disease that has become the nation's most commonly diagnosed cancer and would parallel Britain's breast cancer screening programme. Every year, more than 47,500 men are diagnosed with prostate cancer: 129 a day on average. More than 11,500 deaths from the disease occur each year, with one in eight men being diagnosed with prostate cancer at some time in their lives.

A national screening service – which would test men's saliva for signs of genetic predispositions to the condition – could help to make significant reductions in numbers of cases and deaths. Hence the decision by the government's National Institute for Health Research to give a £3m grant to Professor Rosalind Eeles, of the Institute of Cancer Research (ICR), and the Royal Marsden Hospital London, to lead research aimed at setting up a prostate cancer genetic testing and screening service.

"There are various gene variants that make men particularly susceptible to prostate cancer, and we need to find out exactly what those are," Eeles told the *Observer*. "Then we will be able to develop a set of tests that you could offer to everyone. However, these would have to be cheap and simple to administer."

Eeles and her colleagues are working to uncover the data and resources that will be needed to roll out a programme of prostate cancer gene testing in the NHS. The group has already pinpointed genetic changes that can lead to prostate cancer and have developed tests to detect them. Now they plan to investigate how best to use these in a screening programme.

To do this, Eeles and her team will give their tests to 1,000 men at risk of prostate cancer and 1,000 men known to have the condition. Results from these will be compared with those from men known not to have prostate cancer and who have no family history. Then the team will check how well the gene tests accurately identify a man's risk status.

"The overall risk at age 70 of getting prostate cancer is about 3% and at the age of 80 to 85, it's about 12%," added Eeles. "What we want to do is find out, earlier in life, who among these groups is most at risk of getting the disease."

Studies carried out at the ICR and Marsden's joint Biomedical Research Centre suggest that about 200 different gene variants are involved in raising prostate cancer risks. Most of these variants pose a small danger but in certain combinations these could lead to a high level of risk.

"I can envisage the day when men aged between 40 and 70 could go to their doctors and be given saliva tests and, based on genetic analysis of their spit, they could be told from their genetic profiles just how much at risk they are of getting prostate cancer," said Eeles.

Men identified to be most at risk of aggressive prostate cancer types could then be offered targeted screening and treatments that are now being developed. The research programme will also look at how men want to receive information about their prostate cancer risk and how it can be integrated into the NHS's prostate cancer care pathway.

Eeles stressed that such a screening service would take time to perfect. It would have to be cost-effective and simple to implement.

(Continued on page 9)

(Continued from page 8)

"Ensuring that will be one of the main aims of the research we are now undertaking," she said. "However, I am very confident that in a few years we may be able to roll out screening based on risk assessments of prostate cancer for middle-aged men in the UK."

onlinelibrary.wiley.com

Stereotactic body radiotherapy for oligoprogressive lesions in metastatic castration-resistant prostate cancer patients during abiraterone/enzalutamide treatment

Cem Onal MD

Email: hcemonal@hotmail.com

First published: 27 April 2021

Abstract

Background

Metastasis-directed therapy (MDT) utilizing stereotactic body radiotherapy (SBRT) for oligoprogressive lesions could provide a delay in next-line systemic treatment (NEST) change while undergoing androgen receptor-targeted agents (ARTA) treatment. We evaluated prognostic factors for prostate cancer-specific survival (PCSS) and progression-free survival (PFS) to characterize patients receiving treatment with ARTA who may benefit from MDT for oligoprogressive lesions. The impact of MDT on delaying NEST and the predictive factors for NEST-free survival (NEST-FS) were also assessed.

Materials and Methods

The clinical data of 54 metastatic castration-resistant prostate cancer patients with 126 oligoprogressive lesions receiving abiraterone (1 g/day) or enzalutamide (160 mg/day) before or after systemic chemotherapy were analyzed. A median of three lesions (range: 1–5) were treated with MDT. The primary endpoints were PCSS and PFS. The secondary endpoints were time to switch to NEST and NEST-FS.

Results

The median follow-up time was 19.1 months. Univariate analysis showed that the number of oligoprogressive lesions treated with SBRT and the time between the start of ARTA treatment and oligoprogression were significant prognostic factors for PCSS, and the timing of ARTA treatment (before or after chemotherapy) and the prostate-specific antigen (PSA) response after MDT were significant prognostic factors for PFS. Multivariate analysis showed that early MDT for oligoprogressive lesions delivered less than 6 months after the beginning of ARTA and higher PSA levels after MDT were significant predictors of worse PCSS and PFS. The median total duration of ARTA treatment was 13.8 months. The median time between the start of ARTA treatment and the start of MDT for oligoprogressive lesions was 5.2 months, and MDT extended the ARTA treatment by 8.6 months on average. Thirty-two (59.3%) patients continued ARTA treatment after MDT. ARTA treatment after chemotherapy, early oligoprogression requiring MDT, and lower radiation doses for MDT were independent predictors of NEST-FS in multivariate analysis.

Conclusions

MDT for oligoprogressive lesions is effective and may provide several benefits compared to switching from ARTA treatment to NEST. Patients with early progression while on ARTAs and inadequate PSA responses after MDT have a greater risk of rapid disease progression and poor survival, which necessitates intensified treatment.

First of six FREE webinars on making well-informed prostate cancer decisions

First of six FREE webinars on making well-informed prostate cancer decisions | THE "NEW" PROSTATE CANCER INFOLINK

prostatecancerinfolink.net

On Wednesday, May 26, the Cancer Support Community together with Prostate Cancer International will be holding the first of a series of six **FREE** educational webinars for patients and family members.

As we have become better at identifying the risk level of prostate cancer at the several major stages in what can be a long prostate cancer journey, it has become more and more important that patients learn how to work with their doctors to assess the risks associated with their disease ***before*** they take decisions about any immediate or later form of treatment. (continued in online version)

(Continued on page 11)

NETWORKING

Please help us in our outreach efforts. Our speakers bureau consisting of Lyle LaRosh, and Gene Van Vleet 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: https://ipcsg.org/personal-experience

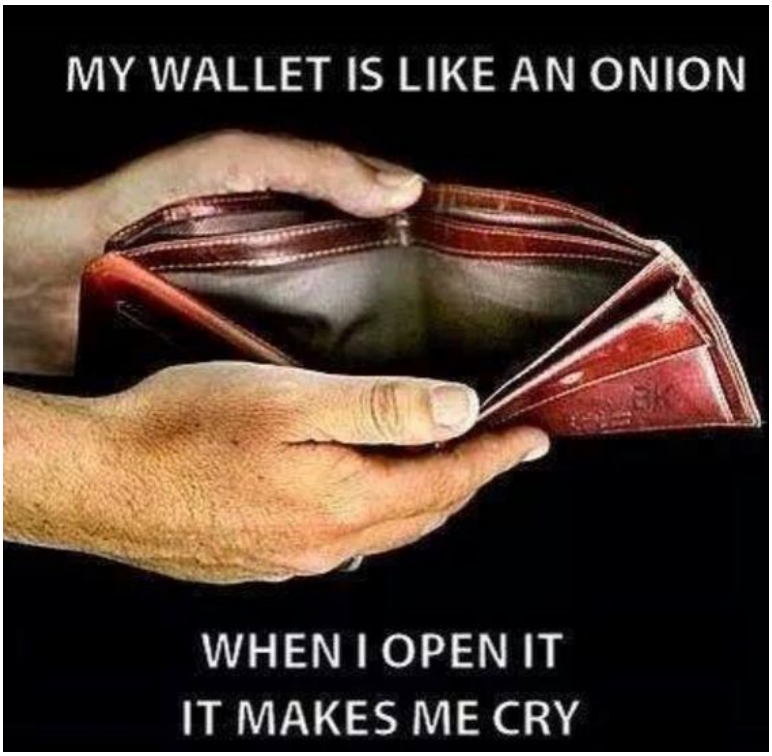
Our brochure provides the group philosophy and explains our goals. Copies may be obtained by mail or email on request. Please pass them along to friends and contacts.

Ads about our Group may be in the Union Tribune the week 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!



While our monthly meetings are suspended, we still have continuing needs, but no monthly collection. 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 420142, San Diego CA 92142

(Continued from page 9)

This series of educational webinars will therefore focus on the evolving methods for the diagnosis and work-up of patients that will allow them the best understanding of how they might respond to the evolving spectrum of management options that might be appropriate in their individual cases.

The first of these webinars will be on

Diagnosis and Work-up of Men with Relatively Low-Risk Prostate Cancer: What You Need to Know

The speaker will be **M. Minhaj Siddiqui, MD**, a urologic oncologist specializing in the management of prostate cancer at the University of Maryland, Baltimore, MD.

Dr. Siddiqui will give an opening presentation for about 25 minutes, starting at **7:00 p.m. Eastern (4:00 p.m. Pacific) on the evening of May 26.** There will then be opportunities for attendees to pose questions to Dr. Siddiqui for the following hour, with the meeting ending at about 8:30 p.m. Eastern (5:30 p.m. Pacific).

You will be able to take advantage of this educational webinar in three ways:

You can participate actively in this live ZOOM meeting if you click here to register.

You can follow the meeting on a Facebook livestream.

After the meeting, we will be posting a full recording of the meeting on YouTube at this link.

This webinar will be particularly useful to cancer and prostate cancer support group leaders, patients diagnosed with or at risk for localized forms of prostate cancer, and their families. Dr. Siddiqui will address all of the issues and evolving tests that help to define patients with lower-risk forms of prostate cancer, including those who are or are not potentially good candidates for initial management on active surveillance (AS) as opposed to needing immediate treatment for their cancer.

Further webinars will be held on the last Wednesday of June through October this year. The second such webinar with address **Diagnosis and Work-up of Men with Relatively High-Risk Prostate Cancer: What You Need to Know**, and the speaker will be **Eric Klein, MD**, of the Cleveland Clinic, Cleveland, OH.

We wish to emphasize that these webinars are not supported by any commercial sponsor.

Clinical outcomes, management, and treatment patterns in patients with metastatic castration-resistant prostate cancer treated with radium-223 in community compared to academic settings - Sartor - - The Prostate - Wiley Online Library:

Abstract

Background

The most common site of disease in metastatic castration-resistant prostate cancer (mCRPC) is the bone. The ALSYMPCA study demonstrated that radium-223 significantly improved overall survival (OS) in mCRPC patients with symptomatic bone metastases and without visceral metastases. However, administration requires a multidisciplinary approach and an infrastructure that supports coordination of care, which may differ by practice site. We aimed to evaluate practice patterns and treatment outcomes in patients with mCRPC treated at a community practice (CP) compared with those treated at an academic center (AC).

Methods

This retrospective review included 200 adult mCRPC patients receiving radium-223 between January 2014 and June 2017. The primary endpoint, OS, was estimated from the date of radium-223 initiation. Secondary outcomes included a comparison of baseline characteristics, reasons for initiation and discontinuation of radium-223, and treatment

(Continued from page 11)

sequencing. A subset analysis of OS based on the number of radium-223 doses and on sequencing of radium-223 either before or after chemotherapy was also conducted.

Results

Most patients were treated at a CP (57%). Patients treated at CP sites were significantly older (74.9 vs. 71.9 years; $p = .031$) and had more comorbidities (Klabunde score 1.1 vs. 0.7; $p = .020$) than those in an AC but initiated treatment within a shorter period of time from diagnosis of mCRPC (1.3 vs. 1.9 years; $p < .001$) and received a greater mean number of radium-223 doses (5.4 vs. 4.8; $p = .001$). There were no observed differences in OS between CPs versus ACs (21.6 vs. 20.7 months; $p = .306$). Overall, patients who received 5–6 doses versus 1–4 doses of radium-223 had a longer median OS (23.3 vs. 6.4 months; $p < .001$). The most common reason for discontinuation in patients who did not complete treatment was disease progression. Overall, 43% of patients received radium-223 monotherapy and 57% concurrently with other agents.

Conclusions

Most patients received radium-223 concurrently with abiraterone acetate or enzalutamide and were able to complete 5–6 doses of radium-223. Despite differences in the populations and treatment patterns, no survival differences between patients treated in ACs versus CPs were observed. Additional real-world data are needed to validate these findings.

. jnm.snmjournals.org

Current and Emerging Clinical Applications of PSMA PET Diagnostic Imaging for Prostate Cancer

Andrea Farolfi, Letizia Calderoni, Francesco Mattana, Riccardo Mei, Sivi Telo, Stefano Fanti and Paolo Castellucci

Journal of Nuclear Medicine May 2021, 62 (5) 596-604; DOI: https://doi.org/10.2967/jnumed.120.257238

Abstract

Prostate-specific membrane antigen (PSMA) is highly expressed on most prostate cancer (PCa) cells, and several PSMA ligands for PET imaging are now available worldwide. ^{68}Ga-PSMA-11 has already received U.S. Food and Drug Administration and European Medicines Agency approval, and use of PSMA PET is currently suggested by several international guidelines for investigating PCa in different clinical settings.

In primary PCa, PSMA PET has been shown to be superior to cross-sectional imaging for the detection of pelvic lymph nodes and distant metastases with subsequent clinical management changes. Additionally, it might also have a role in intraprostatic tumor localization, especially when combined with multiparametric MRI. In a setting of PCa recurrence, higher detection rates have been observed than for any other available imaging techniques, especially at low prostate-specific antigen values.

Furthermore, PSMA PET consistently led to a shift in clinical management, thus increasing the proportion of radiotherapy, surgery, or other focal therapies at the expense of systemic options or no treatment. In oligometastatic disease after radical surgery, PSMA PET may be relevant in guiding a metastasis-directed therapy approach, as preliminary data seem to suggest a benefit in terms of progression-free survival after treatment of PSMA PET–positive lesions.

As a staging and gatekeeping technique, PSMA PET represents a reliable whole-body imaging procedure in combination with second-line therapy of castration-resistant PCa, as well as being pivotal when assessing patients eligible for radioligand therapy such as ^{177}Lu-PSMA. This critical review aims at providing a comprehensive overview of the latest literature on the current or emerging main indications, as well as a general outlook on the recommended interpretation criteria for PSMA PET imaging.

(Continued from page 12)

What level of evidence will it take to move towards widespread adoption of transperineal prostate biopsy in the USA?

Jared S. Winoker

In the recent publication, "Rationale and Protocol for Randomized Study of Transrectal and Transperineal Prostate Biopsy Efficacy and Complications (ProBE-PC study)" Mian et al. perform a focused review of the literature examining transrectal (TRBx) and transperineal (TPBx) prostate biopsy that justify a need for their ongoing randomized study in this space [1].

The authors begin by highlighting the infectious and non-infectious complications associated with TRBx, along with the high rate of post-biopsy admissions (6.9%) and associated costs (>%15,000/per admission) [2]. They review preventative strategies that have been investigated and incorporated into practice, including current standard of care strategies. With respect to non-antimicrobial methods, they emphasize povidone-iodine rectal prep as the only measure proven to reduce biopsy-associated infections. By comparison, antibiotic prophylaxis has been more rigorously studied and the authors describe the major results of targeted therapy, single versus augmented therapy, treatment duration, and data on emerging antibiotic resistance. Collectively, their findings parallel those of the American Urologic Association (AUA) guideline recommendations on antibiotic prophylaxis for TRBx [3].

The authors discuss the existing literature on magnetic resonance imaging (MRI)-targeted prostate biopsies for the detection of clinically significant prostate cancer (PCa). They note that while one systematic review found significantly greater diagnostic sensitivity with TPBx (86%) compared to TRBx (73%) [4], the findings of most studies suggest relatively equivalent cancer detection rates between the two biopsy approaches. A key difference between the two approaches, which has been observed in most studies, is the significantly lower rate of infectious complications with TPBx (<1%), resulting in fewer hospitalizations and death. Still, widespread adoption of the transperineal technique remains limited. The authors suggest a number of reasons for this: Conflicting study results, a lack of high-quality data, pain-related issues, and a familiarity with the TRBx vs the TPBx technique,

The above summative data suggest a need for level one evidence supporting biopsy modality in men at risk of PCa. To this effect, the authors have instituted a randomized controlled trial (RCT) that is currently ongoing. In this trial, patients undergoing prostate biopsy for any reason are randomized 1:1 to undergo office-based free-hand TRBx versus TPBx under local anesthesia. Of note, a MRI is not an inclusion criterion, however, if obtained prior, men with PIRADS 3–5 lesions will have fusion targeted cores obtained before taking the 10–12 systematic/random cores. All patients will receive an enema prior to biopsy. TPBx will be performed without peri-procedural antibiotics while TRBx will be done using ciprofloxacin 500 mg orally plus sulfamethoxazole and trimethoprim 80–160 mg orally, 1 h before and 12 h after. A risk-adjusted group, defined as recent exposure to antibiotics or overseas travel or history of prostatitis or allergies to standard antibiotics will get Ceftriaxone (1 gm) intramuscular (IM), 1-h prior (if allergic to ceftriaxone, then gentamicin, 160 mg IM, 1-h prior).

Primary outcome measures are 2-week and 30-day infectious complication rates. Secondary outcomes include other adverse events and cancer detection rates. To date, 320 of the target 568 patients have been enrolled, of whom 301 have completed their biopsy.

This is a superiority trial—with the underlying hypothesis that TPBx will result in fewer infectious complications than TRBx despite the omission of antibiotics in the transperineal arm, hopefully without compromising the detection of clinically significant PCa. In our institutional experience, we have been offering free-hand TPBx under local anesthesia without antibiotics for several years, and have noted infectious complications all but disappear with a similar saline enema/skin prep strategy. Coupling TPBx with image-fusion in the MRI era may be a game-changer for patients and clinicians alike, but there is no reason not to inform that potential with high-quality RCTs such as this and other planned comparison studies in first-time biopsy, prior negative biopsy, and active surveillance settings (NCT04815876 and a pending R01-funded trial) [5].

(Continued from page 13)

There is indeed an unmet need for high-quality evidence comparing the transrectal and transperineal approaches with respect to cancer detection, infection, and patient experience across a variety of biopsy indications. Findings of the study described herein will certainly add great value to the evolving prostate biopsy landscape, particularly as they pertain to infectious risks and associated procedural costs. It is worth noting that questions surrounding diagnostic accuracy between approaches, an ongoing controversial topic, may remain inadequately answered by this study. It will be important to examine the relative rates of MRI availability, MRI positivity, lesion suspicion level, targeted biopsy outcomes, and associated cancer detection rates between the trial arms. Ultimately, there should be a healthy degree of anticipation for the results of such prospective work, as it should allow us to make more definitive conclusions about the relative risks and benefits of these two biopsy approaches.

On the Lighter Side