Prostate Heidelberg Cancer Support Group

PHCSG provides information, education and support for those affected by Prostate Cancer. At our meetings we are committed to:

- showing respect to members, speakers and guests
- allowing members to speak without interruption
- respecting confidentiality

Prostate Heidelberg

May 2022 Issue 218

For Education, Information and Support

Meeting Hall: Ivanhoe Uniting Church 19 Seddon Street, Ivanhoe
POB 241 Ivanhoe Victoria 3079
Email: prostateheidelberg@gmail.com
Website: www.prostateheidelberg.info

Next face-to-face PHCSG Meeting
Tuesday 19 April 10am – 12:30pm

To join via Zoom: Copy link and paste into your browser

https://us02web.zoom.us/j/85799756694?pwd=RGR3QmJQblRjVVQySXRWMjB1TVZ1UT09

MEMBERSHIP

FULL CALENDAR YEAR PHCSG MEMBERSHIP $20

Join our Monthly meetings on the third Tuesday (Feb – Dec) 10am – 12:30pm

EFT Payments to:
Prostate Heidelberg CSG
BSB 083 256
Acct 583244292

Contents

Member News

A fair amount of time was spent at our April meeting talking about ADT and how to overcome the side effects hence this edition concentrates on exercise and hormone therapy.

Every so often exercise studies and trials are available. We have included details of exercise programs that members can join (on page 4) or checkout your treating hospital as many now have Cancer Exercise & Wellness Programs for patients.

The following Utube article may also be of interest to you: https://www.youtube.com/watch?v=sRBiM5cPkzs

If there is anything you want to talk through in relation to your treatment or wellbeing please don't hesitate to ring:

Max Shub	0413 777 342
Mike Waller	0438 616 240
Michael Meszaros	0407 837 538

Apalutamide now on the PBS

Prostate Cancer Foundation of Australia

29 April 2022

Australian men with early-stage prostate cancer that no longer responds to traditional hormone therapy will now be able to access a new form of treatment rather than wait for their cancer to spread.

Erlyand® (apalutamide) [was] listed on the Pharmaceutical Benefits Scheme from 1 May for approximately 1,000 men with non-metastatic prostate cancer who despite treatment with testosterone-lowering medication experience a rapid rise in prostate specific antigen (PSA) levels, signalling the imminent spread of cancer. Erlyand will be prescribed in combination with androgen deprivation therapy.

"This PBS listing is an important development, and our message is clear – early diagnosis, early treatment and early identification of changes in cancer activity are key to containing and combatting prostate cancer," said CEO Anne Savage.

The PBS listing means that eligible patients will pay just $42.50 (general patients) or $6.90 (concessional patients) for each cycle of treatment with Erlyand.

Without listing on the PBS, the precision medicine would cost consumers around $40,000 a year.

Associate Professor Arun Azad from Peter MacCallum Cancer Centre said that the PBS listing meant eligible Australian patients would have affordable access to Erlyand, an oral therapy which was made available overseas more than four years ago as the first approved medicine to treat non-metastatic prostate cancer.

"Stopping cancer before it spreads represents a shift in how we treat prostate cancer. It's akin to identifying and dowsing flames before they form and spread as a bushfire."

Associate Professor Azad explained that while there were treatments for advanced prostate cancer, suppressing the cancer at an earlier stage is a more effective strategy which avoids "fighting the cancer on multiple fronts".

Erlyand works by blocking the action of testosterone in prostate cancer cells and prevents the hormone androgen, which plays a role in prostate cancer growth, from binding to the androgen receptor.[2] The therapy is taken as a tablet once a day, with or without food.

Janssen Australia and New Zealand Managing Director, Biljana Naumovic said the company had been "working to secure a PBS listing since 2018".

"It's been a long wait and the implications on the health of men with non-metastatic prostate cancer cannot be underestimated," she said.

"This is why the Federal Government's review of National Medicines Policy must remove the barriers to timely and equitable access to innovative medicines."

Ms Naumovic confirmed that Janssen continues to explore the use of Erlyand at different stages in the prostate cancer treatment journey. "We are hopeful that Erlyand will play an important role in combatting various forms of prostate cancer."

All medicines have side-effects. The most common side-effects that occurred with Erlyand in the clinical trials were fatigue, arthralgia, rash, decreased appetite, fall, weight decreased, hypertension, hot flush, diarrhea and fracture.

The Benefit of Exercise

Source: https://anzup.org.au/story/exercise-in-cancer-care/

In Australia someone is diagnosed with cancer every four minutes. Every one of those patients would benefit from exercise but only one in ten will exercise enough during and after their cancer treatment.

Why? Research now shows that exercise greatly benefits cancer patients. Cancer patients who regularly exercise experience less severe and fewer side effects from treatments. They can also reduce the physical deteriorations caused by cancer, combat fatigue, relieve mental distress and improve quality of life. Cancer patients who regularly exercise may also have a lower relative risk of cancer recurrence and of dying from cancer. (Please use this link for further information https://theconversation.com/every-cancer-patient-should-be-prescribed-exercise-medicine-95440)

A group of Australian cancer experts have now launched a position statement calling for exercise to be prescribed to all cancer patients as part of their routine treatment.

The Clinical Oncology Society of Australia (COSA) has prepared the Exercise in Cancer Care paper, which states doctors, should prescribe particular exercise regimes and refer patients to exercise specialists with experience in cancer care. That is, exercise should be prescribed to all cancer patients as part of their routine treatment.

The statement has been endorsed by more than 25 health organisations, including the Cancer Council, Peter MacCallum Cancer Centre and ANZUP. A COSA report on the subject has been published in the Medical Journal of Australia.

The COSA statement finds most cancer patients do not meet exercise recommendations. The level of exercise outlined in the statement includes:

- At least 150 minutes of moderate intensity or 75 minutes of vigorous-intensity aerobic exercise (e.g. swimming, cycling, walking, jogging) each week; and,
- Two to three resistance exercise (i.e. lifting weights) sessions each week encompassing moderate to vigorous-intensity exercises targeting the main muscle groups.
- When correctly prescribed and managed, exercise is safe for people with cancer and the risk of complications is moderately small.

ANZUP is fully committed to providing better outcomes for cancer patients and this includes investigating exercise in cancer treatment. Through the Below the Belt Research Fund two grant recipients are further exploring the importance and value of exercise in cancer care.

1) Dr Camille Short from the University of Adelaide is currently exploring:

Delivering personalised and evidence-based exercise support to men with metastatic prostate cancer via the internet – A pilot randomised clinical trial examining intervention impact on behaviour change and quality of life.

This research recognises that both physical activity and psychological support can greatly improve quality of life for men with metastatic prostate cancer. Although it is suggested men are more likely to follow physical activity guidelines than use psychological support, traditional supervised exercise is often unavailable and/or underutilised. It is important physical activity is accessible and affordable, but also individualised, evidence-based and safe. This study will provide personalised physical activity advice through an innovative web-based platform. It will be evaluated to ensure it works as intended and is well received by users and has the potential for significant impact through increased reach and uptake.

While there are some face-to-face programs available, many men live too far away, are too unwell or lack funds to attend face-to-face sessions, especially on an ongoing basis. Our research team, which consists of experts in prostate cancer, exercise physiology, psychology, medicine and telehealth is well placed to develop an alternative support system that will be available to men with metastatic disease via the internet.

Once the website is developed the next step will be to conduct preliminary research to ensure it works as intended and is well received by the initial users.

2) Professor Dennis Taaffe, Edith Cowan University is researching:

Exercise Medicine Prior to Open Radical Cystectomy: Feasibility and Preliminary Efficacy

Bladder removal surgery as a treatment for bladder cancer is associated with high complication and hospital re-admission rates, as well as significant risk of morbidity and mortality. This risk is increased for patients with poor physical fitness or overall function. This study will test the benefits of a supervised four-week pre-surgery strength and aerobic exercise program in improving post-surgery outcomes and quality of life. It is the first Australian study to test the feasibility and preliminary effectiveness of pre-surgical exercise with opportunities to then proceed to a larger multicentre Phase III trial.

Why should people with cancer exercise?

If the effects of exercise could be encapsulated in a pill it would be prescribed to every person with cancer. Even if this pill had just a fraction of the positive health benefits

Source: https://www.exmedcancer.org.au/

- Is a safe & effective program specifically designed for people with cancer
- Counteracts the adverse effects of cancer and its treatment
- Involves an individualised exercise medicine program delivered by experienced exercise physiologists in local fitness centres
- Enhances physical and mental wellbeing and delivers profound improvements to the lives of people with cancer
- Is based on the latest scientific research
- Is an Australian Charities and Not-for-profit Commission (ACNC) registered not-for-profit organization
- Is designed and administered by international leaders in the field of exercise and cancer research and practice

- Years of scientific research has established exercise as an invaluable medicine in the management of cancer. Evidence based guidelines recommend all people with cancer exercise regularly to help tolerate and recover from cancer treatments.
- Research shows that people with cancer who exercise regularly have a lower relative risk of dying from cancer, a lower relative risk of cancer recurrence and they experience fewer and/or less severe treatment-related adverse effects.

To spice up your motivation for running, walking or cycling (or any distance based exercise) you could try taking a virtual fitness challenge and travel the world at the same time. https://www.theconqueror.events/

The following hospitals/organisations provide exercise programs for their patients with prostate cancer. Please note that it is not an exhaustive list and if you know of other programs in Melbourne or Victoria please let us know.

The Man Plan support program was developed to support prostate cancer patients prescribed Lucrin through their treatment journey. It focuses on resistance-based exercise and providing practical wellbeing information and resources.

You can choose between two options:

- Exercise sessions with an accredited exercise physiologist, either at a clinic location or via Zoom in a virtual appointment. Face to face sessions subject to location and availability.
- Self-managed support with access to a variety of resources to support you with exercise and your overall wellbeing. You can request a phone call with an exercise physiologist to assist with setting up good exercise habits and for any exercise related questions or concerns.

Use the form at https://themanplan.com.au/manplanenrolment

to enrol yourself into The Man Plan® program and select your exercise preference so that we can tailor the program to best suit your current needs.

You don't need a GP referral to access some services such as Exercise Physiology and Pelvic Floor Physiotherapy, however if you have a referral from a GP management/care plan in place these services may not incur a fee. Please speak to their reception staff for more information.

Level 8, 14-20 Blackwood Street, North Melbourne VIC 3051 Tel 03 8373 7600

https://themanplan.com.au/manplanenrolment

Eligard provides a series of customised exercise programs for patients with PCa at any level of fitness. https://eliplus.com.au/enrol/

This website is intended for Australian healthcare professionals only so will need to talk to your GP or other healthcare professional to access it on your behalf.

A qualified exercise physiologist will discuss why exercise is considered important before, during and after cancer treatment.

This will help you in:

- Improving your energy levels
- Helping control your pain
- Helping your body function as well as possible
- Assisting with depression and anxiety
- Making it easier for you to do daily activities on your own

When: Last Thursday of every month
Time: 12:00pm - 1:00pm
Where: Online via Zoom

For further information or if you have a question, please contact the Wellbeing Centre team by:

Phone: (03) 8559 6260 (Monday to Friday 9:00am - 5:00pm, voicemail available)

Email: WellbeingCentre@petermac.org

https://www.petermac.org/events/lets-talk-exercise-online

The Exercise Physiology service, as a part of the Wellness and Supportive Care services, delivers exercise education and individualised exercise prescription to outpatients receiving cancer treatment at the ONJ Centre.

Our Exercise Physiologist, Ashley Bigarin, has specialist knowledge in prescribing exercise programs for patients with cancer. To plan the program that is right for you, she takes into consideration your diagnosis, your treatment plan and any side effects you may be experiencing.

During your first appointment, you can discuss what exercise option would suit you best; within the gym located in the ONJ centre, in the comfort of your own home or we can help you find a service closer to home.

Tel 03 9496 9445 onjexercise@austin.org.au

https://www.onjcancercentre.org/patients-family/diagnosis-treatment/your-wellness-matters/our-wellness-programs/exercise-physiology-service

For referrals and enquiries regarding our Allied Health services and programs please contact ACCESS on (03) 9508 1700 or email access@cabrini.com.au.

Available at:

- Epworth Brighton
- Epworth Camberwell
- Epworth Hawthorn
- Epworth Geelong (general cancer rehabilitation program only)

A referral from a GP, specialist or other health professional is required to access Epworth Rehabilitation programs.

Download Epworth Rehabilitation referral form

5 Arnold Street,
Box Hill, Victoria, 3128 Australia
P: 1300 342 255

www.easternhealth.org.au

The program aims to increase your general fitness and assist with skills and confidence to improve your well-being. The program runs twice a week for seven weeks. Each session consists of one hour of exercise (tailored to your needs and level of fitness) and one hour of education. (from managing side effects through to the emotional impact of cancer).

Education sessions are run by experts in their fields including:

· Occupational Therapist; Oncology Nurse; Dietician; Physiotherapist; Social Worker

The program accepts people at all stages of treatment. It is OK if you are still waiting for treatment, still having treatment or have completed your treatment.

Carers and partners are welcome as participants often find it helpful to have carers/partners with them at the education sessions.

The cost is $8 per visit but in the case of financial hardship, special arrangements regarding costs can be negotiated.

Paid parking is available on-site.

Please contact the program coordinator for details.

Gut Environment Changes Due to Androgen Deprivation Therapy in Patients with PCa

Source: https://pubmed.ncbi.nlm.nih.gov/35418210/

Abstract

Background: It is estimated that by 2040 there will be 1,017,712 new cases of prostate cancer worldwide. Androgen deprivation therapy (ADT) is widely used as a treatment option for all disease stages. ADT, and the resulting decline in androgen levels, may indirectly affect gut microbiota. Factors affecting gut microbiota are wide-ranging; however, literature is scarce on the effects of ADT on gut microbiota and metabolome profiles in patients with prostate cancer.

Methods: To study the changes of gut microbiome by ADT, this 24-week observational study investigated the relationship between testosterone levels and changes in gut microbiota in Japanese patients with prostate cancer undergoing ADT. Sequential faecal samples were collected 1 and 2 weeks before ADT, and 1, 4, 12, and 24 weeks after ADT. Blood samples were collected at almost the same times. Bacterial 16 S rRNA gene-based microbiome analyses and capillary electrophoresis-time-of-flight mass spectrometry-based metabolome analyses were performed.

Results: In total, 23 patients completed the study. The α- and ß-diversity of gut microbiota decreased significantly at 24 weeks after ADT ($p = 0.017$, $p < 0.001$, respectively). Relative abundances of Proteobacteria, Gammaproteobacteria, Pseudomonadales, Pseudomonas, and concentrations of urea, lactate, butyrate, 2-hydroxyisobutyrate and S-adenosylmethionine changed significantly after ADT ($p < 0.05$). There was a significant positive correlation between the abundance of Proteobacteria, a known indicator of dysbiosis, and the concentration of lactate ($R = 0.49$, $p < 0.01$). Conclusions: The decline in testosterone levels resulted in detrimental changes in gut microbiota. This dysbiosis may contribute to an increase in frailty and an increased risk of adverse outcomes in patients with prostate cancer.

Source: https://pubmed.ncbi.nlm.nih.gov/31951037/

The Effect of Statins on Advanced Prostate Cancer Patients with Androgen Deprivation Therapy or Abiraterone/Enzalutamide

Abstract

What is known and objective: To evaluate the effects of statin use on the treatment outcomes (i.e. overall survival and cancer-specific survival) among advanced prostate cancer (PCa) patients treated with androgen deprivation therapy (ADT) or abiraterone/enzalutamide.

Methods: The original studies, examining the effects of statins on the outcomes (i.e. overall survival and cancer-specific survival) among PCa patients treated with ADT or abiraterone/enzalutamide, were identified through a systematic search by two independent reviewers in the PubMed, Cochrane, Embase, American Society of Clinical Oncology and European Society of Medical Oncology databases. Databases were searched using keywords (abiraterone OR enzalutamide OR androgen deprivation therapy) AND statin. In total, nine eligible studies from 111 references were included for final analysis.

Results and discussion: Statin use significantly lowered the risk of all-cause mortality (100 709 patients, HR = 0.73, 95%CI = 0.64-0.83, P < .00001) and the risk of cancer-specific mortality (100 343 patients, HR = 0.64, 95% CI = 0.53-0.77, P < .00001) in advanced PCa patients treated with ADT. The sensitivity analysis showed that the results were reliable. However, it could not generate reliable evidence in patients with metastatic castration-resistant prostate cancer (mCRPC) treated with abiraterone/enzalutamide, as relevant studies were limited and had inconsistent results.

What is new and conclusion: The review indicated that the use of statins in combination with ADT was associated with better all-cause survival and cancer-specific survival in patients with advanced PCa. Randomized controlled trials should be conducted to establish efficacy of statins among PCa patients.

Source:
25 April 2022
Reviewed by Aimee Molineux
https://www.news-medical.net/news/20220425/Researchers-identify-five-types-of-bacteria-in-men-with-aggressive-prostate-cancer.aspx?utm_medium=email&utm_source=rasa_io

Researchers Identify five types of bacteria in men with aggressive prostate cancer

Researchers at the University of East Anglia have found a link between bacteria and aggressive forms of prostate cancer.

They identified five types of bacteria which were common in urine and tissue samples from men with aggressive prostate cancer.

It is hoped that these findings could help pave the way for treatments that could target these particular bacteria and slow or prevent the development of aggressive disease.

Project lead Prof Colin Cooper from UEA's Norwich Medical School, said: "We already know of some strong associations between infections and cancer. For example, the presence of *Helicobacter pylori* bacteria in the digestive tract can lead to stomach ulcers and is associated with stomach cancer, and some types of the HPV virus can cause cervical cancer.

"We wanted to find out whether bacteria could be linked to the way prostate cancer grows and spreads."

Dr Jeremy Clark, also from UEA's Norwich Medical School, said: "While prostate cancer is responsible for a large proportion of all male cancer deaths, it is more commonly a disease men die with rather than from.

"And little is known about what causes some prostate cancers to become more aggressive than others. We now have evidence that certain bacteria are involved in this and are part of the puzzle."

The team worked with colleagues at the Norfolk and Norwich University Hospital, the Quadram Institute, and other collaborators to analyze urine or tissue samples from more than 600 patients with or without prostate cancer. And they developed methods of finding the bacteria associated with aggressive prostate cancer.

Dr Rachel Hurst, first author of this work and also from UEA's Norwich Medical School, said: "To detect the bacteria, we used many different approaches including whole genome sequencing of the tissue samples, a method which is being used increasingly as we transition into an era of genomic medicine.

"When tumor samples are sequenced, DNA from any pathogens present are also sequenced, making it possible to detect bacteria.

"We found several types of bacteria associated with aggressive prostate cancer, some of which are new types of bacteria never found before."

Two of the new bacteria species found by the team have been named after two of the study's funders - *Porphyromonas bobii*, after the The Bob Champion Cancer Trust and *Varibaculum prostatecancerukia,* after Prostate Cancer UK.

The set of bacteria found by the team include *Anaerococcus*, *Peptoniphilus*, *Porphyromonas*, *Fenollaria* and *Fusobacterium*. All of these are anaerobic, which means they like to grow without oxygen present.

Dr Hurst said: "When any of these specific anaerobic bacteria were detected in the patient's samples, it was linked to the presence of higher grades of prostate cancer and more rapid progression to aggressive disease.

"We also identified potential biological mechanisms of how these bacteria may be linked to cancer.

Related Stories

- https://www.news-medical.net/news/20220427/Highly-Effective-Single-Dose-HPV-Vaccination-for-the-Eradication-of-Cervical-Cancer.aspx
- https://www.news-medical.net/news/20220428/MAPK-pathway-mutations-can-provide-e2809cprecisione2809d-treatment-targets-for-head-and-neck-cancer.aspx
- https://www.news-medical.net/news/20220427/Study-illuminates-why-cowpea-mosaic-virus-is-exceptionally-effective-against-cancer.aspx

"Among the things we don't yet know is how people pick up these bacteria, whether they are causing the cancer, or whether a poor immune response permits the growth of the bacteria.

"But we hope that our findings and future work could lead to new treatment options, that could slow or prevent aggressive prostate cancer from developing. Our work could also lay the foundations for new tests that use bacteria to predict the most effective treatment for each man's cancer," she added.

The team also noted that many bacteria are beneficial to human life and it is not a simple matter to remove the harmful bacteria without removing the protection provided by the good bacteria.

Prof Daniel Brewer, from UEA's Norwich Medical School and a visiting worker at the Earlham Institute, said: "Knowing when we can watch and wait or whether we need to start treatment is a major challenge for people with prostate cancer. If we can target aggressive cancers while sparing others from unnecessary treatment it will dramatically improve the way we manage this disease.

"There seems to be a clear link between these bacteria and the way the cancer is behaving. We need to understand this relationship in more detail but it's a major step towards developing a cheap and quick test that could guide treatment decisions."

This research has shown a potential link between more aggressive prostate cancer and the presence of certain bacteria in the prostate and in urine. Whether this is cause or effect is not clear and will be the subject of further research."

Robert Mills, Urology Consultant, Norfolk and Norwich University Hospital

Collaborator Prof John Wain from the Quadram Institute said: "This research exemplifies the Norwich Research Park's multidisciplinary approach to studying infection.

"The link between bacterial growth and cancer is not always straight forward and working with the cancer group at the Norwich Medical School has allowed us to demonstrate a possible link between bacteria living in the prostate and severe forms of prostate cancer.

"By combining advanced computational analysis of DNA sequence data from the urine of patients with an in depth understanding of cancer biology and the ability to characterize new species of bacteria we were able to show an association between the presence of several bacteria and progression to an aggressive form of prostate cancer.

"This will now enable further work to determine if there are causal relationships between microbes and cancer."

Curative treatments didn't work and my PSA is rising? Should I start on ADT now or wait?

Source
22 April 2022
https://www.lifeonadt.com/life-on-adt-blog/2022/4/22/curative-treatments-didnt-work-and-my-psa-is-rising-should-i-start-on-adt-now-

A disheartening moment for many prostate cancer patients is experiencing a rise in PSA after definitive treatment for prostate cancer that was hopefully curative. The rising PSA signifies residual disease and the next treatment is typically ADT. Given the wealth of side effects associated with ADT, a perennial question is, "Do I need to start ADT now or can I get equal control of my cancer if I just wait until the PSA is higher?"

This question has drawn a fair bit of research, including a series of studies a decade and a half ago on the now classic, "The Timing of Androgen Deprivation Trial" (aka, TOAD). The original TOAD study found a survival benefit for starting ADT promptly rather than waiting for more PSA rises indicative of non-cured prostate cancer.

More recently, a group of researchers at the University of Michigan have gone back and reviewed some TOAD data that were not analyzed before. They specifically looked at patients in TOAD who had or had not been previously on ADT at the start of the study. Among the men who had been on ADT previously, those who received immediate ADT had improved overall survival compared to those who delayed starting on ADT. However, immediate ADT was not associated with a significant benefit for patients who had no previous exposure to ADT.

What this suggests is that a slow rise in PSA after a prostatectomy or radiotherapy should not be a reason to panic and rush to start on ADT when there's a long PSA doubling time. However, if the patient has been on ADT before (for instance, as adjuvant therapy to radiotherapy) and he then experiences progressive rises in PSA, a case can be made for starting on ADT relatively soon.

It is studies like these that inspire our love for science. One can appreciate well-designed studies and the efforts researchers go to in order to find new data. But it's particularly pleasant to see investigators clever enough to look at old data in a new way and find things that had not been seen before.

From a patient's perspective, the decision to start on ADT when there is a rise in PSA after definitive treatment needs to take into consideration not just absolute PSA value and PSA doubling time, but also previous ADT history.

Molecular Mechanisms of Coffee on Prostate Cancer

Source:
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9054433/

Prostate cancer (PCa) is one of the most common types of cancer among men, and coffee is associated with a reduced risk of developing PCa. Therefore, we aim to review possible coffee molecular mechanisms that contribute to PCa prevention. Coffee has an important antioxidant capacity that reduces oxidative stress, leading to a reduced mutation in cells. Beyond direct antioxidant activity, coffee stimulates phase II enzymatic activity, which is related to the detoxification of reactive metabolites. The anti-inflammatory effects of coffee reduce tissue damage related to PCa development. Coffee induces autophagy, regulates the NF-κB pathway, and reduces the expression of iNOS and inflammatory mediators, such as TNF-α, IL-6, IL-8, and CRP. Also, coffee modulates transcriptional factors and pathways. It has been shown that coffee increases testosterone and reduces sex hormone-binding globulin, estrogen, and prostate-specific antigen. Coffee also enhances insulin resistance and glucose metabolism. All these effects may contribute to protection against PCa development.

Androgen Deprivation Therapy use and Duration with Definitive Radiotherapy for Localised Prostate Cancer

Source
Authors: Kishan AU et al.
Reference: Lancet Oncol. 2022;23(2):304-316

Summary: This meta-analysis aggregated individual patient data from 12 randomised trials to quantify the benefit of ADT intensification in 10,853 men receiving radiotherapy for prostate cancer. Over a median follow-up of 11.4 years, metastasis-free survival was improved by addition of ADT to radiotherapy (HR 0.83; 95% CI 0.77- 0.89; p < 0.0001) and by adjuvant ADT prolongation (HR 0.84; 95% CI 0.78-0.91; p < 0.0001), but no improvement was observed with neoadjuvant ADT extension (HR 0.95; 95% CI 0.83-1.09). Treatment effects did not differ with radiotherapy dose, patient age, or NCCN risk group.

Comment: Who, when and for how long are perennial questions surrounding the use of ADT in combination with definitive radiotherapy in patients with clinically localised prostate cancer. This individual patient level meta-analysis of over 10,000 men in 12 eligible RCTs found that concomitant ADT and prolonged adjuvant ADT significantly prolonged metastasis free survival, compared to radiotherapy alone, whereas neo-adjuvant ADT did not, compared to radiation alone. The margin of benefit is significant, with a 15- 20% reduction in HR compared to monotherapy. Interestingly, similar benefit was observed regardless of patient age, radiation dose and risk category, although the latter must be interpreted with some caution given the significant changes in tumour grading etc., over the 50-year study inclusion period.

Association of Muscle Mass with Survival after Radical Prostatectomy in Patients with Prostate Cancer

Source
https://pubmed.ncbi.nlm.nih.gov/30916628/

Abstract

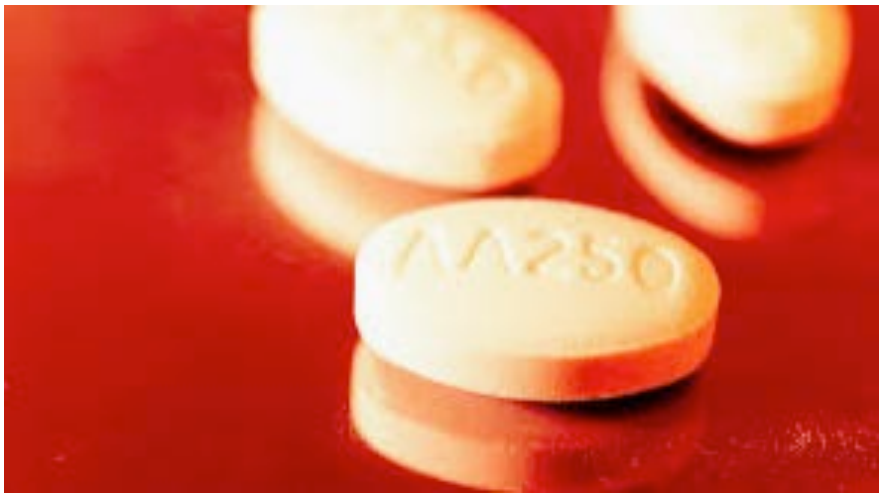
Purpose: Although muscle mass has been associated with survival in patients with various types of solid tumors, the relationship between muscle mass and survival in patients with prostate cancer remains unclear. We retrospectively investigated the association of muscle mass with survival after radical prostatectomy in patients with prostate cancer.

Materials and methods: We reviewed the records of 2,042 patients who underwent radical prostatectomy of prostate cancer between 1998 and 2013. Muscle mass was evaluated by measuring the psoas muscle index on preoperative computerized tomography images.

Results: In the lowest, second, third and highest psoas muscle index quartiles the 10-year distant metastasis-free survival rate was 72.5%, 83.8%, 92.3% and 93.7% (p <0.001), the 10-year cancer specific survival rate was 85.7%, 92.1%, 96.8% and 97.6%, and the 10-year overall survival rate was 74.5%, 79.6%, 89.8% and 90.6%, respectively (each p <0.001). The psoas muscle index positively correlated with the body mass index, serum concentrations of IGFBP-3 and bioavailable testosterone, and inversely correlated with patient age, the serum SHBG concentration and the neutrophil-to-lymphocyte ratio. On multivariable analysis the psoas muscle index was independently associated with increased risks of biochemical recurrence, distant metastasis, and cancer specific and overall death.

Conclusions: Low muscle mass may be associated with increased risks of recurrence and mortality in patients who undergo radical prostatectomy of prostate cancer regardless of the body mass index. Large-scale prospective studies are warranted.

Like all treatment decisions, you have to weigh how you feel about the potential benefits against the potential risks. No one can do that for you.



Is ADT Necessary When You Take Abiraterone E Acetate (Zytiga)?

Source
HTTPS://WWW.CANCERABCS.ORG/ADVANCED-PROSTATE-CANCER-BLOG/2020/9/14/IS-ADT-NECESSARY-WHEN-YOU-TAKE-ABIRATERONE-ACETATE-ZYTIGA

2nd Line Hormone Therapy, Zytiga and ADT

Since the approval of the second generation LHRH Therapies like Abiraterone acetate (Zytiga) plus prednisone (AA+P), many men we talk with at Cancer ABCs have been asking us if it is vital to continue taking first-line ADT (hormone therapy).

ADT, which causes castration, or the removal of androgens such as testosterone from the body, comes with many significant adverse side effects. These side effects include loss of libido, loss of bone mass, causing an increased risk of fractures, hot flashes, cardiovascular complications, metabolic complications like diabetes, etc. Given the host of ADT's potential complications, can stopping ADT improve the quality of life while not compromising the prostate cancer treatment?

In an abstract, 5046, presented at the 2019 Virtual aASCO Meeting, this question was asked. The abstract provided us with a summation from the SPARE-trial (NCT02077634); *CH Ohlmann, C Ruessel, R Zillman, et al.* asked what would happen if men with metastatic castrate resistant prostate cancer who were chemotherapy naive and who were taking Zytiga stopped first line ADT.

The SPARE-trial was an exploratory phase II study, including 67 men. In the trial, the subject men were randomized to receive continued ADT plus Zytiga and prednisone or Zytiga plus prednisone alone(without ADT) to determine the value of continuing ADT.

The researchers found that in all men who received Zytiga plus prednisone and ADT, their median testosterone levels remained below castrate levels throughout treatment.

In 18% of the men who only received Zytiga and prednisone (no ADT), their testosterone levels increased above castrate levels 28 days after treatment cessation.

They also found that the median treatment duration was shorter in the men receiving Zytiga plus prednisone and ADT.

The researchers concluded that ADT may not be necessary for men receiving Zytiga and prednisone; however, some men may experience a rapid increase of serum testosterone levels, warranting close monitoring and adding back ADT.

This research is not conclusive and only evaluated the possibility of halting ADT while taking Zytiga and prednisone. It did not evaluate stopping ADT with any other second-generation hormone manipulations like Xtandi or Darolutamide.

CAUTION

Under no circumstances should you stop your primary ADT treatment without a careful conversation and your medical oncologist's agreement. If you and your oncologist decide to stop ADT, you and your doctor must develop a cautious plan to AGGRESSIVELY AND CONTINUOUSLY monitor your serum testosterone levels.

PLEASE NOTE:
Treatments may vary in Australia. Please ensure you discuss your diagnosis and treatment options with your consulting specialist

Obesity Linked to Improved Survival in Advanced PCa

Source
Conference | EAU Annual Congress
July 13, 2021
Jason M. Broderick

The so-called “obesity paradox”—improved survival in patients with a high body mass index (BMI)—reported in other genitourinary malignancies has now also been observed in patients with metastatic castration-resistant prostate cancer (mCRPC), according to retrospective findings presented during the 36th Annual European Association of Urology (EAU) Congress.

In an analysis of nearly 1600 patients enrolled across three phase 3 trials, the overall survival (OS) rate at 36 months was about 30% in obese patients (BMI >30) compared with 20% in overweight (25< BMI <30) and normal weight (20< BMI <25) patients. Statistical modeling showed that the overall risk of death was 4% (HR, 0.96; P = .015) lower in obese patients when evaluating BMI as a continuous variable, and 29% lower (HR, 0.71; P = .027) with BMI as a categorical variable.

The investigators also determined that the OS benefit was not caused by the higher chemotherapy dose received by patients with a higher BMI. They found no interaction between BMI subgroups and the dose of chemotherapy (P >.05 for all 3 BMI categories).

"Looking at patients with metastasis of prostate cancer, we found that obese patients are living longer. This means that BMI could be used to predict survival in these patients,” study investigator Nicola Fossati, MD, a urologist at San Raffaele University stated.

"This obesity paradox has been seen in some other cancers, possibly due to the relationship between tissue fat and cancer genomes, and more research is needed in this area. It's also possible that improved survival may be due to the interaction of chemotherapy with other drugs. Obese patients in this older age group tend to be taking medication for other conditions and we do not fully understand how these medicines interconnect,” added Fossati. "Nevertheless, we would not recommend weight gain to anyone with this or another disease. Obesity is a risk factor for many cancers and other diseases and patients should always aim for a healthy BMI of 18 to 24."

The study enrolled 1577 patients with mCRPC enrolled across 3 phase 3 randomized control trials: ASCENT2, MAINSAL and VENICE. The median patient age was 69 years (IQR, 63-74) and the median BMI was 28 mg/m2 (IQR, 25-31). The median follow-up for survivors was 12 months.

Beyond overall survival, the “obesity effect” was also observed with cancer-specific survival. Statistical modeling showed that the risk of cancer-related death was 6% (HR, 0.94; P = .002) lower in obese patients when evaluating BMI as a continuous variable, and 35% lower (HR, 0.65, P = .018) with BMI as a categorical variable.

"There are many possible explanations for the association of body weight with positive outcome in metastatic cancers. It might be that patients with higher BMI are able to tolerate the toxicity of the treatments and their side effects better; in prostate cancer it might be due to the protective impact of hormones found in fat tissue; and it is known that healthy men with slightly higher BMI have a higher overall life expectancy compared to very slim ones.”

Further research is needed and changes to existing treatment is not recommended until the mechanism is proven.

Learn to be your own researcher to make the best treatment decisions, by being proactive and an advocate for your own health

A Phase 1b/2 Study of Sabizabulin, a Novel Oral Cytoskeleton Disruptor, in Men With Metastatic Castration-Resistant Prostate Cancer with Progression on an Androgen Receptor Targeting Agent

Source
Research Article 13 April 2022
https://fortune.com/2022/04/12/experimental-covid-drug-sabizabulin/

An experimental COVID drug was so successful that they're shutting down trials early

BY COLIN LODEWICK
April 13, 2022

A double-blind study that ended last week showed that sabizabulin, a new oral medication from pharmaceutical company Veru has the potential to cut the virus's mortality rate in half for moderate and severe cases. It was so successful, in fact, that researchers stopped the trial early.

"What that implies is that it's unethical to continue treating people with placebo," Mitchell Steiner, chairman, president, and CEO of Veru, told *Fortune*.

Sabizabulin functions as both an antiviral and anti-inflammatory drug that targets cellular infrastructure known as microtubules. The coronavirus uses that infrastructure to travel into cells where it replicates before traveling out again to spread.

And although the company is currently testing a COVID treatment, Veru's area of expertise is oncology research, with a focus on breast and prostate cancers. Steiner says the company was previously researching sabizabulin for its cancer-fighting properties before it began pandemic research.

Abstract

Purpose: Sabizabulin, an oral cytoskeleton disruptor was tested in a Phase 1b/2 clinical study in men with metastatic castration resistant prostate cancer (mCRPC).

Experimental Design: The Phase 1b portion utilized a 3+3 design with escalating daily oral doses of 4.5 mg - 81 mg and increasing schedule in 39 mCRPC patients treated with one or more androgen receptor targeting agents. Prior taxane chemotherapy was allowed. The Phase 2 portion tested a daily dose of 63 mg in 41 patients with no prior chemotherapy. Efficacy was assessed using PCWG3 and RECIST 1.1 criteria.

Results: The MTD was not defined in the Phase 1b and the recommended Phase 2 dose was set at 63 mg/day. The most common adverse events (>10% frequency) at the 63 mg oral daily dosing (combined Phase 1b/2 data) were predominantly Grade 1-2 events. Grade 3 events included diarrhea (7.4%), fatigue (5.6%) and ALT/AST elevations (5.6% and 3.7%, respectively). Neurotoxicity and neutropenia were not observed. Preliminary efficacy data in patients treated with {greater than or equal to}1 continuous cycle of 63 mg or higher included objective response rate in 6/29 (20.7%) patients with measurable disease (1 complete, 5 partial) and 14/48 (29.2%) patients had PSA declines. The Kaplan-Meier median radiographic progression-free survival was estimated to be 11.4 months (n=55). Durable responses lasting > 2.75 years were observed.

Conclusions: This clinical trial demonstrated that chronic oral daily dosing of sabizabulin has a favorable safety profile with preliminary antitumor activity. These data support the ongoing Phase 3 VERACITY trial of sabizabulin in men with mCRPC.

To demonstrate the efficacy of VERU-111 (Sabizabulin) in the treatment of metastatic castration-resistant prostate cancer in patients who have failed prior treatment with at least one androgen receptor targeting agent as measured by radiographic progression-free survival.

This Phase 3 VERACITY trial is recruiting only in the US. (see page 16)

https://clinicaltrials.gov/ct2/show/study/NCT04844749#contacts

Survival Benefit to Debulking the Prostate with Radiation in Men with Low Metastatic

Source
30 September 2018
https://www.prostatecancer.news/2018/09/no-survival-benefit-to-debulking.html

The term "debulking" denotes the radical treatment (via prostatectomy or radiation) of the cancerous prostate after distant metastases have been discovered. This first randomized clinical trial of debulking with external beam radiation found that there was no overall survival benefit.

Results of the STAMPEDE randomized clinical trial were published in the Lancet. Like the HORRAD trial (see below), they found there was no survival benefit to radiation debulking among all newly diagnosed men with metastases (Stage M1). Unlike the HORRAD trial, they utilized higher radiation doses.

Newly diagnosed men were treated with standard of care (which at the time meant ADT and docetaxel in 18% of the men) and were randomized to no radiation debulking or hypofractionated radiation, consisting of either:

- 55 Gy in 20 daily treatments, or
- 36 Gy in 6 weekly treatments (note: this bioequivalent dose is 15% higher)

However it made a big difference in survival if the men were oligometastatic (1-3 distant metastases). After 37 months median follow-up:

- Survival increased by 32% (hazard ratio = 0.68) in 819 oligometastatic men
  - 3 yr survival was 81% with debulking vs 73% without debulking
- No survival increase among the 1,120 polymetastatic men (defined as visceral metastases or 4 or more bone metastases with at least 1 outside the axial skeleton)

Survival increases were also noted among men with only pelvic lymph node metastases (N1M0), in whom whole pelvic radiation may be curative.

Adverse events from the radiation were generally mild:

- 5% had grade 3 (serious) or higher acute urinary or rectal side effects
- 4% had grade 3 (serious) or higher late-term urinary or rectal side effects

Based on this and their other randomized clinical trials, men with lower metastatic burden should be treated with ADT+Zytiga or ADT+docetaxel, followed in 2 months with local hypofractionated radiation. Men with higher metastatic burden should be treated with ADT+Zytiga or ADT+docetaxel (it is unknown whether ADT+Zytiga+docetaxel adds any additional benefit). Metastasis-directed therapy is under investigation.

(Update 2/18/2021) Because controversy exists in how to define "low metastatic burden," Ali et al. undertook a secondary analysis of the STAMPEDE trial. They found that the benefit of RT debulking was greatest in two groups:

1. 1-3 bone metastases (M1b) with no visceral metastases
2. Only non-pelvic lymph node metastases (M1a) with no visceral metastases

The survival benefit dropped off after 3 bone metastases. There was no benefit in anyone with any visceral metastases (M1c). Metastases are counted based on conventional imaging (bone scan/CT), so metastases found on PET scans do not count towards the total.

Boevé et al. reported the results of 432 men with bone metastases at 28 centers in the Netherlands from 2004 to 2014 (the HORRAD trial). They had received no previous treatments. They all had PSA > 20 ng/ml at the start of treatment and were under 80 years of age. They were randomized to receive either:

- Lifelong ADT (an LHRH agonist, starting with 4 weeks of an anti-androgen)
- Lifelong ADT + external beam radiation therapy (EBRT)

The EBRT dose was 70 Gy (35 treatments of 2 Gy each) or 57.8 Gy (19 treatments of 3.04 Gy each), which are biologically equivalent. No whole pelvic radiation or brachy boost therapy was given.

After 47 months median follow-up, the median overall survival was:

1. 45 months in the group that received ADT + EBRT
2. 43 months in the group that received ADT only

The difference was not significant

The authors also looked at survival differences based on:

- Number of bone metastases (<5, 5-15, >15)
- PSA at diagnosis (greater or less than 60 ng/ml)
- Gleason score
- Stage
- Age
- Performance status
- Painful bone metastases

None made any significant difference in survival.

(continued page 14)

The time to PSA progression was slightly longer among those who received EBRT (15 months vs. 12 months), but the statistical significance vanished after correction for patient characteristics.

These disappointing results conflict with several retrospective database analyses. This once again illustrates that only prospective randomized clinical trials can prove a causal relation, and that observational studies are confounded by the vagaries of patient selection; i.e., patients who receive debulking in actual clinical practice are the ones who would do better anyway. It is worth noting that a similar thing had occurred with breast cancer. Several retrospective studies had suggested that resection of the breast tumor plus axillary lymph nodes increased survival even when distant metastases were detected. However, Badwe et al. reported that when women were prospectively randomized to that treatment or no such treatment, there was no survival difference.

Because this trial began over a decade ago, it does not include radiation doses now considered to be curative (around 80 Gy). Nor does it include brachy boost therapy, which was shown to be superior to EBRT alone in high risk patients in the ASCENDE-RT randomized clinical trial. It is also unknown what effect whole-pelvic radiation or metastasis-directed therapy might have had, or whether prostatectomy with or without extended pelvic lymph node dissection (ePLND) may have increased survival.

This clinical trial began before CHAARTED, STAMPEDE, and LATITUDE clinical trials proved that early treatment with docetaxel and abiraterone improves survival in newly diagnosed metastatic men. It is unknown what effect debulking may have in men pre-treated with those systemic therapies.

Many of these unknowns are being explored in current clinical trials. The randomized clinical trial of debulking at 257 US locations will allow for systemic pre-treatments and either EBRT or surgery. This clinical trial in Canada allows for treatment with surgery, HDR brachytherapy, chemotherapy, and SBRT to metastases. This clinical trial in Europe allows for treatment with docetaxel, and abiraterone. This clinical trial in Germany randomizes patients to prostatectomy + ePLND or best systemic therapy.

Because radiation and prostatectomy have adverse effects, this study should make patients cautious about having any kind of debulking outside of a clinical trial.

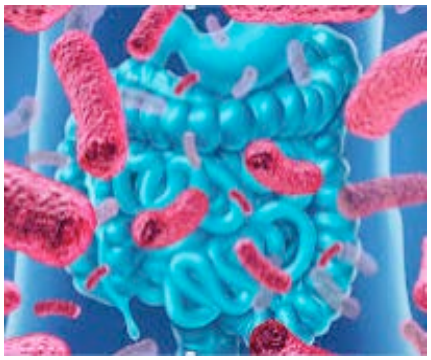
Like all treatment decisions, you have to weigh how you feel about the potential benefits against the potential risks. No one can do that for you.

Health-related quality of life in metastatic, hormone-sensitive prostate cancer: ENZAMET (ANZUP 1304), an international, randomized phase III trial led by ANZUP

Authors: Stockler MR et al.
Reference: J Clin Oncol. 2022;40(8):837-846
Prostate Cancer Research Review

Summary: This Australian/New Zealand study included an examination of the effect on health- related QOL (HR-QOL) of enzalutamide when added to standard of care in 1042 patients with metastatic, hormone-sensitive prostate cancer (mHSPC). Mean difference scores from week 4 to week 156 for control recipients were better than enzalutamide recipients for fatigue (5.2; 95% CI 3.6-6.9; $p < 0.001$), cognitive function (4.0; 95% CI 2.5-5.5; $p < 0.001$), and physical function (2.6; 95% CI 1.3-3.9; $p < 0.001$), but not overall HR-QOL (1.2; 95% CI -0.2 to 2.7). At 3 years, deterioration-free survival rates favoured enzalutamide over control for overall HR-QOL (31% v 17%; $p < 0.0001$), cognitive function (31% v 20%; $p = 0.001$), and physical function (31% v 22%; $p < 0.001$), but not fatigue (24% v 18%).

Comment: In a similar vein, this QOL report from the Australian-led ENZAMET study investigated global and prostate-cancer specific quality in men with mHSPC randomised to ADT plus enzalutamide or ADT plus standard non-steroidal antiandrogen therapy. The primary endpoint of the study was overall survival (OS), which was significantly greater in men treated with enzalutamide compared to standard of care. This follow-up study reports on QOL, which was initially worse in patients treated in enzalutamide (particularly for fatigue, cognitive and physical function). However this was reversed at 3 years, due to the deterioration in overall QOL, physical and cognitive function domains associated with progressive disease. Important to consider patients preferences for trading QOL versus survival benefits in this population.



Cleveland Clinic Study Links Gut Microbiome and Aggressive Prostate Cancer

Source
28 Oct 2021
https://www.sciencedaily.com/releases/2021/10/211028120417.htm#:~:text=Researchers%20uncover%20how%20diet%2C%20lifestyle%20modifications%20may%20lower%20risk%20of%20l

Researchers uncover how diet, lifestyle modifications may lower risk of lethal disease.

Cleveland Clinic researchers have shown for the first time that diet-associated molecules in the gut are associated with aggressive prostate cancer, suggesting dietary interventions may help reduce risk. Findings from the study were published in Cancer Epidemiology, Biomarkers & Prevention.

While more research will be necessary, the study's lead author Nima Sharifi, M.D., says findings from the team's analysis of nearly 700 patients may have clinical implications for diagnosing and preventing lethal prostate cancer.

"We found that men with higher levels of certain diet-related molecules are more likely to develop aggressive prostate cancer," said Dr. Sharifi, director of Cleveland Clinic's Genitourinary Malignancies Research Center. "As we continue our research in this area, our hope is that one day these molecules can be used as early biomarkers of prostate cancer and help identify patients who can modify their disease risk by making dietary and lifestyle changes."

In this study, Dr. Sharifi and his collaborators – including Stanley Hazen, M.D., Ph.D., and Eric Klein, M.D. – analyzed data from patients previously enrolled in the National Cancer Institute's Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer Screening Trial.

They studied baseline levels of certain dietary nutrients and metabolites (byproducts produced when a substance is broken down in the gut) found in patients' blood serum prior to prostate cancer diagnosis. They compared serum levels between healthy patients and those who later received a prostate cancer diagnosis and died from the disease.

The researchers found that men with elevated levels of a metabolite called phenylacetylglutamine (PAGln) were approximately two or three times more likely to be diagnosed with lethal prostate cancer. This metabolite is produced when microbes in the gut break down phenylalanine, an amino acid found in many plant- and animal-based protein sources like meat, beans and soy.

In addition to PAGln, researchers also discovered that elevated levels of two nutrients abundant in animal products, including red meat, egg yolks and high-fat dairy products, called choline and betaine, also were linked with increased risk for aggressive prostate cancer.

While these nutrients and gut metabolites have been studied previously in heart disease and stroke, this is the first time that gut microbiome metabolites have been studied clinically in relation to prostate cancer outcomes.

Dr. Hazen was the first to identify PAGln's association with increased cardiovascular disease risk. The findings were published in 2020 in Cell. "Interestingly, we found that PAGln binds to the same receptors as beta blockers, which are drugs commonly prescribed to help lower blood pressure and subsequent risk of cardiac events," said Dr. Hazen, director of Cleveland Clinic's Center for Microbiome & Human Health and chair of Lerner Research Institute's Department of Cardiovascular & Metabolic Sciences. "This suggests that part of beta blockers' potent efficacy may be due to blocking the metabolite's activity."

"New insights are emerging from large-scale clinical datasets that show use of beta blockers is also associated with lower mortality due to prostate cancer," said Dr. Sharifi, who is a staff physician in Lerner Research Institute's Department of Cancer Biology. "We will continue to work together to investigate the possible mechanisms linking PAGln activity and prostate cancer disease processes in hopes of identifying new therapeutic targets for our patients."

The research team also will continue to explore the reliability of using choline, betaine and PAGln as biomarkers of aggressive prostate cancer and how dietary interventions can be used to modulate their levels and reduce patients' subsequent disease risk.

ABSTRACT

Background: It is estimated that by 2040 there will be 1,017,712 new cases of prostate cancer worldwide. Androgen deprivation therapy (ADT) is widely used as a treatment option for all disease stages. ADT, and the resulting decline in androgen levels, may indirectly affect gut microbiota. Factors affecting gut microbiota are wide-ranging; however, literature is scarce on the effects of ADT on gut microbiota and metabolome profiles in patients with prostate cancer.

Methods: To study the changes of gut microbiome by ADT, this 24-week observational study investigated the relationship between testosterone levels and changes in gut microbiota in Japanese patients with prostate cancer undergoing ADT. Sequential faecal samples were collected 1 and 2 weeks before ADT, and 1, 4, 12, and 24 weeks after ADT. Blood samples were collected at almost the same times. Bacterial 16 S rRNA gene-based microbiome analyses and capillary electrophoresis-time-of-flight mass spectrometry-based metabolome analyses were performed.

Results: In total, 23 patients completed the study. The α- and ß-diversity of gut microbiota decreased significantly at 24 weeks after ADT ($p = 0.017$, $p < 0.001$, respectively). Relative abundances of Proteobacteria, Gammaproteobacteria, Pseudomonadales, Pseudomonas, and concentrations of urea, lactate, butyrate, 2-hydroxyisobutyrate and S-adenosylmethionine changed significantly after ADT ($p < 0.05$). There was a significant positive correlation between the abundance of Proteobacteria, a known indicator of dysbiosis, and the concentration of lactate ($R = 0.49$, $p < 0.01$).

Conclusions: The decline in testosterone levels resulted in detrimental changes in gut microbiota. This dysbiosis may contribute to an increase in frailty and an increased risk of adverse outcomes in patients with prostate cancer.

https://pubmed.ncbi.nlm.nih.gov/35418

Kit May Offer Fast and Portable Method for PSA Screening

SOURCE
January 11, 2022
Benjamin P. Saylor

Investigators from Cornell University, Ithaca, New York have developed a portable and rapid kit for use in prostate cancer screening.

The kit, described by investigators in a recent study in Current Research in Biotechnology, uses a test strip and a small, cube-shaped reader to quantify prostate-specific antigen (PSA). A drop of blood is applied to the test strip, and in approximately 15 minutes, 2 lines appear on the strip. The reader device calculates and displays a measurement of PSA concentration based on the intensity of the test strip lines.

"We'll be able to take a drop of blood in a community setting such as a barbershop and be able to deliver results in 10 to 15 minutes right there, which can indicate when somebody needs to come in for further tests. It's creating that first point of contact that hopefully builds rapport and brings health care services to the people at the point of need," said senior author Saurabh Mehta, ScD, the Janet and Gordon Lankton Professor in the Division of Nutritional Sciences at Cornell University, in a news release.

The investigators used commercially available total PSA calibrators to optimize and evaluate the assay. A detection range of 0.5 ng/mL to 150 ng/mL was achieved on initial validation using the ACCESS Hybritech calibrator. Comparing the kit with IMMULITE analyzer for quantification total PSA in archived human serum samples, the investigators observed a correlation of 0.95 ($P < .0001$).

In the news release, first author Balaji Srinivasan, a research associate in Mehta's research group, noted that the test strip format means that the kits have the capability to be mass produced and sold for a few dollars each.

"Another advantage of test strips is that the technology to make them really cheap or mass produce them has been around for many years," Srinivasan said.

With the test kit, the investigators also sought to make PSA testing more accessible to underserved populations, such as African American men.

"There is a need for increasing access to PSA screening among African American men who are otherwise not able to get tested periodically, and one of the ways is we take the test to them at various community settings," Srinivasan said.

PLEASE NOTE:
Treatments may vary in Australia. Please ensure you discuss your diagnosis and treatment options with your consulting specialist

Prostate Heidelberg Cancer Support Group Meetings

PHCSG organizes specialists and consultants to speak to members on a regular basis.

21 June: Assoc Prof Joseph Ischia
Urological Surgeon

A/Prof Joseph Ischia is a surgical urooncologist skilled in general urology and specialising in the management of urological cancers. He is also involved in Urological research in prostate, bladder and kidney cancer with a research position at University of Melbourne.

PCa Clinical Trials & Studies

For Further information on current and recruiting trials visit:

https://www.anzup.org.au/content.aspx?page=prostatecancertrialdetails

Phase 3 VERACITY trial launches of sabizabulin in mCRPC
June 26, 2021
Jason M. Broderick

The first patient has been enrolled in the phase 3 VERACITY trial, which is exploring the novel oral cytoskeletal disruptor sabizabulin (VERU-111) in chemotherapy-naïve patients with metastatic castration-resistant prostate cancer (mCRPC) resistant to abiraterone acetate (Zytiga) or enzalutamide (Xtandi).[1]

The study (NCT04844749) has a target enrollment of 245 patients and is being conducted at more than 45 clinical sites in the United States.

"Unfortunately, advanced prostate cancer patients receiving androgen receptor targeting agents in combination with standard androgen-deprivation therapy will eventually have tumor progression. There is a significant need for new therapies with novel mechanisms of action. Sabizabulin is a novel, oral agent with provocative levels of activity and safety in early studies and we are now prospectively evaluating this agent in a phase 3 study," Robert Dreicer, MD, lead principal investigator for the VERACITY study and deputy director, UVA Cancer Center, director of Solid Tumor Oncology, professor, Medicine: Hematology and Oncology, stated in a press release.

The VERACITY study was launched following positive phase 1b/2 data of sabizabulin in this patient population. Initial efficacy results from the phase 1b/2 trial shared at the 2021 ASCO Annual meeting showed that among 29 patients who received the recommended phase 2 dose (63 mg/daily), the objective response rate was 20.7% (n = 6), including 1 complete response and 5 partial responses.[2]

The open-label, phase 3 VERACITY trial is randomized patients in a 2:1 ratio to sabizabulin (32 mg daily) or the alternative antiandrogen agent not previously received by the patient (abiraterone or enzalutamide). The primary end point in progression-free survival and key secondary end points included overall survival, response, duration of response, time to chemotherapy, and pain progression.

"We are excited to begin enrolling patients in our open label phase 3 VERACITY clinical trial," Mitchell Steiner, MD, chairman, president, and CEO of Veru Inc., the developer of sabizabulin, stated in the press release. "As we have previously reported, in the Phase 1b/2 clinical trial sabizabulin had significant evidence of tumor efficacy including PSA declines and responses as well as objective and durable tumor responses. Furthermore, sabizabulin was well tolerated without neutropenia. In fact, the safety profile of sabizabulin appears to be similar to what is reported in the package inserts for an androgen receptor targeting agent such as enzalutamide or abiraterone. If the phase 3 is successful, sabizabulin could be the next 'go-to drug' in the largest and growing unmet medical need in men who have metastatic castration resistant prostate cancer and who have developed progression of prostate cancer while being treated with an androgen receptor targeting agent, but prior to using IV chemotherapy."

Like all treatment decisions, you have to weigh how you feel about the potential benefits against the potential risks. No one can do that for you.

644TiP SAABR: Single arm phase II study of abiraterone + atezolizumab + GnRH analog and stereotactic body radiotherapy (SBRT) to the prostate in men with newly diagnosed hormone-sensitive metastatic prostate cancer (mHSPC)

Authors: Rathkopf DE et al.

Summary: This poster described the 2-year, single-arm, phase II SAABR study which will examine the effect of combining androgen ablation using abiraterone acetate plus androgen deprivation therapy, with the cytotoxic and immune effects of stereotactic body radiotherapy (SBRT) of the prostate plus the additional effects of anti-PD-L1 immunotherapy using atezolizumab in 42 men with newly diagnosed mHSPC. The primary endpoint is failure-free rate at 2 years.

Comment: There is now a desire to accumulate evidence for the role of SBRT or as we know it stereotactic ablative body radiation (SABR) in prostate cancer. Through several high-level clinical trials it has been established that adding either androgen pathway inhibitors or chemotherapy to testosterone suppression can prolong OS for men diagnosed with mHSPC. The STAMPEDE trial has cemented radiation therapy in treatment algorithms by reducing treatment failure rates in locally advanced prostate cancers. Concurrently, some preclinical data has suggested that SABR can induce expression of PD-L1 on tumour and immune cells. Putting these pieces together, the authors wish to test the hypothesis that the combination of testosterone suppression, abiraterone acetate, SABR and the anti-PD-L1 drug atezolizumab may together exert synergistic effects to improve outcomes in men with mHSPC. This was a short report as the trial continues with the primary outcome being the failure-free rate at 2 years (composite endpoint including biochemical failure, radiographic progression or death from any cause). Biopsies will be done in cohorts of patients after starting atezolizumab but before abiraterone, and after initiation of abiraterone and atezolizumab but before SBRT. A total of 42 patients are expected to be enrolled in this study. This seems like an interesting trial and one that will again speak to where the combination of treatment modalities lies.

Reference: Ann Oncol. 2021;32(Suppl_5):S672

Internet Resources

Members have found the following websites useful

Prostate Cancer Foundation of Australia for guides & help
https://www.pcfa.org.au
https://onlinecommunity.pcfa.org.au/

Australian Cancer Trials Information on clinical trials
https://www.australiancancertrials.gov.au

USA Prostate Cancer Foundation (Guide) PDF guide for men newly diagnosed with PC
https://www.pcf.org/guide/

Us TOO International PCa Education (USA) USA PC support groups' information & newsletter
https://www.ustoo.org

Cancer Council Victoria for general support services
https://www.cancervic.org.au

ExMed Cancer Program Melbourne based 'best practice' exercise medicine program
https://www.exmedcancer.org.au

ProstMate (PCFA) A companion to record PC results

Beyond Blue for help with depression and anxiety
HELPLINE 1300 22 4636

Continence Foundation of Australia for assistance with incontinence aids
HELPLINE 1800 33 0066

PCRI Prostate Digest (USA) Prostate Cancer Research Institute supporting research and disseminating information to educate and empower patients, families and the medical community
https://pcri.org/insights-newsletter

PAACT Newsletter (USA) Patient Advocates for Advanced Cancer Treatments
http://paact.help/newsletter-signup/

A Touchy Subject
https://www.youtube.com/channel/UCdyuxGuAuCWJbe-kZvwVSzQ

The internet is a good source for research but it should not be trusted to give you answers for your personal care. Always speak to your doctor to clarify any medical advice.

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PHCSG Committee

Mike Waller Convener
Max Shub Co-Facilitator
Spiros Haldas Library
David Bellair Web Site
Michael Meszaros Welfare Officer
Sue Lawes Secretary/Newsletter

PHCSG Meetings 2022 10am – 12:30pm

Tues 15 Feb
Tues 15 March
Tues 19 April
Tues 16 May
Tues 21 June
Tues 19 July
Tues 16 August
Tues 20 September
Tues 18 October
Tues 15 November
Tues 13 December (the second Tues to avoid the week prior to Xmas. Includes Xmas lunch – subject to COVID restrictions)

2022 PHCSG Articles

If you have any feedback or wish to include articles on specific aspects of Prostate Cancer please contact Sue at:

prostateheidelberg@gmail.com

January 2022

- Links between Gut Microbiome & Aggressive PCa
- Radpid PCa Screening Kits
- How Much Should You Eat?
- Abiraterone/DT Combo Associated with High Metastasis-Free Survival Rate
- Terbiom-161 Clinical Study Collaboration
- Electrical Pudendal Nerve Stimulation vs Pelvic Floor Muscle Training
- Identifying PSA Patterns in mHSPC Treated with Abiraterone & Prednisone
- Viagara Linked to Lower Risk of Alzheimer's
- Ductal Adencarcinoma
- BAT vs Enzalutamide in MCRPC
- Systemic Therapy Patterns in MCRPC
- Exercise May Stop Disease in its Tracks
- AI Accurately diagnoses PCa
- New Insights into Molecular Drivers of Treatment Resistance in PCa
- Decreased Fracture Rate by Manadating Bone Protecting Agents

February 2022

- Why Aren't More Men Electing to Have an Orchiectomy?
- Could More Testosterone be the Key to Fighting PCa? Part one
- Inflammation from ADT may Cause Fatigue
- Optimal Duration of ADT Depends on the Type of Radiation
- How does ADT Affect the Brain?
- Pomegranate may Help Reduce Certain Cancers – Study
- The Perils & Pitfalls of PSA in Advanced PCa
- One Man's Mission to Make PCa Fix Open for All
- Physical exercise can Improve Quality of Life
- Gather My Crew
- Does One Recover Testosterone Faster when Stopping LHRH Antagonist or Agonist?
- Clinical Trials & Studies

March 2022

- Will PSA Testing be Replaced? Novel Screening Approches
- How Bipolar Androgen Therapy Works
- Bipolar Androgen Therapy and the Immune System
- The Role of SBRT
- On Metabolic Syndome, Statin Drugs & PCa Progression
- Yoga Improves QoL in Men Newly Diagnoses with PCa
- The Trials & Tribulations of Managing Men with mHSPCa
- How Enzalutamide Impacts QoL in Metastatic Cancer
- Low-meat and Meat-free Diets associated with lower overall cancer risk
- Transdermal Oestradiol for Androgen Suppression
- PCa Test Cuts False Positives
- Trial to Evaluate Men Starting ADT
- Who goes on ADT with RT to Treat Intermediate Risk PCa
- Darolutamide & Surival in mHSPC
- Effect of High Dose Vitamin D on Bone Density & Strength
- How Important is Bone Mineral Density for Men on ADT
- Bipolar Androgen Therapy – A Patient's Guide
- The D-Health Trial – Effect of Vitamin D on Mortality
- Does Estradiol Improve Cognitive Function for men on ADT?
- SBRT or Convemntional RT for Macroscopic Prostate Bed Recurrence
- To continue ADT – or Not?
- Biochemical Definition of Cure with Brachytherapy of PCa
- New Radiotracer increases Accuracy
- Less Meat, Less PCa?
- PCa's Sweet Tooth
- RP vs RT in Ductal Carcinoma of Prostate
- Survival after RP vs RT in Nodai Positive PCa

April 2022

- Apalutamide no on the PBS
- The Benefit of Exercise
- Ex Med and Hospital exercise programs for patients wit PCa
- Gut Environment changes due to ADT
- Effect of Statins on Advanced PCa or abiraterone/enzalutamide
- Researchers identify five types of bacteria in men with aggressive PCa
- Curative treatments didn't work – what should I do?
- Molecular Mechanisms of Coffee on PCa
- ADT use & duration with RT for Localised PCa
- Association of Muscle Mass after RP
- Is ADT Necessary when you take Abiraterone?
- Obesity Linked to Improved Survival in Advanced PCa
- A Novel Oral Cytoskeleton Disruptor – experimental drug Sabizabulin
- Survival Benefit to Debulking with radiation
- QoL in mHSPC men taking Enzlautamide
- Cleveland Clinic Study Links Microbiome to Aggressive PCa
- Portable Method for PSA Screening
- Clinical Trials

2021 PHCSG Articles

If you have any feedback or wish to include articles on specific aspects of Prostate Cancer please contact Sue at:

prostateheidelberg@gmail.com

January 2021
- Exercise Infographic
- Sexual Dysfunction & Shared Decision Making
- FDA Approves first Oral Hormone Therapy
- Prolonged ADT Reduces Cardio Fitness
- Reducing the Burden of Out-of-Pocket Expenses
- BAT Sensitizes CRPCa to Subsequent Therapy
- Targeting Bone Mets with Radiation in Oligorecurrent Men

Prostate Cancer Trials
- PEACE V:STORM
- UpFront PSMA Phase II
- NINJA

February 2021
- Advantages of Coffee
- Our Biological Clock
- Statins tied to Better Outcomes
- What's New in Inflammation
- New PC Management Techniques
- About the Patch Trial
- Eating a Colourful Diet
- Dose Painting
- Advancement in Focal Therapy

Prostate Cancer Trials
- Enza-P
- DASL-HiCaP Trial
- Lu-177-PSMA-617
- Adding Apalutamide to Radiotherapy & LHRH Agonist

March 2021
- Challenging Your Private Health Provider
- How Research is Prioritised – Norman Swan podcast
- Metastatic PCa – Don't Accept Complacency
- An mRNA Vaccine for Cancer
- Life After Treatment – Wellness Program
- Focal Therapy – If It Sounds Too Good to be True
- Immune Checkpoints on CTCs

April 2021
- Study finds cancer cells evade chemo by going dormant
- High Risk Localised PCa: Changing the rules
- Automated Pathological Assessment of PCa Biopsy Slides
- Final Results from TITAN Study
- SBRT for High Risk Patients
- Benefit of taking 1year of ADT after radiation for high risk PCa
- Novel Radiopharmaceutical beats Cabazitaxel in MCRPC
- Novatis announces phase III positive results
- Estrogen – Our Sister Hormone

Prostate Cancer Trials
- Enzalutamide With Lu PSMA-617 Versus Enzalutamide Alone
- Darolutamide Augments Standard Therapy for Localised Very High-Risk Cancer

May 2021
- Full on Kitchen Sink for High Risk Localized PCa
- Calcium & Vitamin D Supplements
- Favourable prognosis with adjuvant ADT after RT
- Healthy Lifestyle may offset Genetic Risk
- Additional Treatment Option
- New Type of Treatment could reawaken Immune Response
- Penile Rehabilitation
- Prostate Cancer Trial Results

June 2021
- Dry July
- Breakthrough in Disease resistance to drugs
- PyL PSMA Pet Imaging
- Does thel level of your Testosterone matter when on ADT?
- Stay Bone-Healthy
- ADT and the risk of Cariovascular Disease
- The Pros & Cons of Orchiectomy
- Risk of Serial Biopsies
- Reflections on 10 years on AS
- Improvements on Oligo-recurrent Therapies
- Time Pressure Decisions
- Research making Chemo Friendlier
- Trial Results on Exercise

July 2021
- Ground Breaking Early Cancer Detection
- What Should You Eat
- ADT What You Really Need to Know
- Anti Androgen Therapy
- Overall Survival with Metachronous MHSPC
- New Guidelines for Salvage Radiation
- Help for ED after RP
- Germline Testing

Prostate Cancer Trials
- Enz-P; DASL HiCaP; NINJA; Upfront PSMA
- 45 & Up Study Results

August 2021
- Targeting PSMA
- What is the Role of Modern Imaging
- Observation Vs SBRT for Oligometastatic PC
- Combined High-dose Salvage RT & HT in Oligorecurrent Pelvic Nodes
- Long Term Urinary & Erectile Function following RP
- Bone Resportion Inhibitors
- RT After RP
- Take Responsibility

Prostate Cancer Trials
- UpFront PSMA & MOSES Study

September 2021
- Targeting PSMA
- PEEK Study
- Skeletal Events & Bone Modifying Agents in Castration Resistant PC
- Abiraterone +docetaxel+ADT for Newly Diagnoses Metastatic PC
- Brief, Intense Radiation & Hormone Therapy for Very High Risk PCa
- Progression-directed Therapy for Oligoprogression
- Insights into PC metabolism
- Diagnostic Accuracy of PSMA 18F-DCFPyL PET/CT
- Risk of PC in relatives of PC
- Relugolix – Expected to Alter Treatment
- Whole-pelvic radiation Therapy for High-Risk Patients
- It's time to Retire a Common Biopsy
- Cognitive Function / Marital Status & PC Incidence
- Covid Passports
- Medical Bills: Out of Pocket Costs

Prostate Cancer Trials
- UpFront PSMA & ENZAp

October 2021
- Continuous vs Intermittant ADT
- Predict Risk Tool
- Doubling Time Tool
- High Discontinuation Rate in AS
- AI Program Helps Detect PCa
- Plant Based Diet
- Obesity Ups MCRPCa Survival
- Impact of Hypofractionated RT on Patient Outcomes
- Controversy Around Testosterone Therapy
- Medications for ADT Hot Flashes
- Best Way to recover Urinary Continence after PR
- Diabetic Risk & ADT
- Abiraterone for NMPC
- When to Use Chemo

November 2021
- New PCa drug helping men live lomger
- What predicts who goes on continuous vs intermittent ADT
- Gut Bugs can drive PCA growth & resistance
- Exception to early salvage radiation
- PCa Urine Test
- New Strategy against Treatment resistant PCa
- Blood Test may help treat PCa

Prostate Cancer Studies
- Caregiver Health Literacy/Supportive Care Program/access to Nutrition Info
- Optimal Dietary & Exercise

December 2021
- PCa Thwarted by Gut Microbiota
- Exercise is Medicine
- Giving Cancer a "Brown-Out"
- Wake Up! It's Time to Address Sleep Issues
- The Complex Natural Biochemistry of a Healthy Diet
- ADT: What You Really Need to Know
- Andropause and the Treatment Nobody Talks About
- Unlocking the Secrets of Sleeping Cancer Cells
- Treatment-Related Regret
- New PCa Treatment Coul d Improve Outcomes for Advanced Patients
- PCa Trials – Recruiting
- Promising Treatments & New Methods