# Manitoba Prostate Cancer SUPPORT GROUP

# Newsletter

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#### July 2017

### New Scan Helps Men Avoid Risky And Painful Prostate Biopsy

- Men will be offered a blood test that looks for raised levels of a prostate specific antigen
- About 150,000 men a year have transrectal ultrasounds, which can leave them in pain for weeks afterwards
- The special MRI scan will replace this painful procedure for a quarter of men

Men with suspected prostate cancer could be spared painful and risky needle biopsy tests thanks to a new scanning technique that can detect tumours just as accurately, a new study has found.

Currently, if doctors believe a man is suffering symptoms that indicate the disease, he will first be offered a blood test that looks for raised levels of prostate specific antigen (PSA), a protein produced by the prostate gland.

Although a higher-than-normal PSA

level may be caused by cancer, it can also be the result of other benign conditions.

However, about 150,000 men a year will then have a transrectal ultrasound (TRUS) biopsy, where ten to 12 small tissue samples are taken from the prostate via the rectum using a needle.

But this causes pain, which in some men can last for weeks. It can also cause bleeding in the urine or semen – and up to one in three men are treated

(Continued on page 2)

### **Medical Advisors**

Paul Daeninck M.D. Medical Oncologist

Darrel Drachenberg M.D. Urologist

Graham Glezerson M.D. Urologist

Ross MacMahon M.D. Urologist

# Thanks!

**July 20** Panel discussion Gayle Nichols (resource), Pamela Klassen(diet), Jennifer McLaren (exercise)

**Topic:** "Promoting patient self-help in dealing with prostate cancer"

Location: Cindy Klassen Recreation Complex at 999 Sargent Avenue

**Time:** 7 – 9 pm. *Free Admission Everyone Welcome* 



The Manitoba Prostate Cancer Support Group offers support to prostate cancer patients but does not recommend any particular treatment modalities, medications or physicians ; such decisions should be made in consultation with your doctor.

### MPCSG – active since 1992.

Thought of The Day If at first you don't succeed, skydiving is not for you.



www.manpros.org

*(Continued from page 1)* for an infection afterwards.

A less invasive approach is being recommended after the Prostate MRI Imaging Study (PROMIS), in which 740 men with blood tests that indicated prostate cancer were offered a special type of MRI scan.

A quarter of the men were either diagnosed with cancer or given the all-clear, meaning they could safely avoid a biopsy.

For those men who did still need a biopsy, just having a detailed scan of the prostate in advance meant that doctors could take samples from the suspect areas and improve accuracy.

Professor Raj Persad, consultant urologist at North Bristol NHS Trust who took part in the study at Southmead Hospital, said: 'Accurate treatment of prostate cancer depends on accurate diagnosis, but PSA levels can vary widely and are affected by prostate size, age, recent surgery, how recently a man has had sex, and even cycling, so they are a very inaccurate guide.

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'And a TRUS biopsy effectively takes tissue samples at random, and so may miss a cancer entirely so we may give a patient the all-clear when they actually have a clinically significant cancer.'

Prostate cancer is the most common cancer among men in the UK, with 47,000 new cases diagnosed annually. About 11,000 men die of the disease.

However, thanks to advances in treatment, the outlook is generally good. Around 84 per cent of men with prostate cancer survive for more than ten years after diagnosis.

Nationally, about half of men who are thought to have prostate cancer have the specialist scan –multiparametric magnetic resonance imaging, or MP-MRI – before a biopsy.

While most major hospitals now have the right kind of scanning facilities, practice varies widely. Some offer this to all patients before biopsy, some to very few.

Tim Dudderidge, consultant urological surgeon at Southampton Hospital, said: 'Around a quarter of men could be spared a biopsy by proper scanning. Scans are being offered in a haphazard way, and we need a streamlined national system to spare men unnecessary biopsies.'

Carol Davis The Mail June 10, 2017

http://www.dailymail.co.uk/health/article-4591456/New-scan-helps-men-avoidrisky-painful-prostate-biopsy.html

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## "Raising Awareness.....Spreading the Word"

The Manitoba Prostate Cancer Support Group works to increase education, awareness and support for the prostate cancer community. These services are provided through a variety of activities and are available without cost to the existing patient population as well as to the public at large.

Raising awareness is especially important to encourage more men, who may already have prostate cancer but don't yet know about it, to get checked. Early detection makes all the difference in effecting a cure. As part of our efforts to raise awareness our group provides speakers to community groups, as well as attending "health fairs" in shopping malls and the like.

If your group would like to have a speaker talk about prostate cancer contact board member Pat Feschuk (Special Events organizer; telephone 204-654-3898; or email at lizpat@shaw.ca) to make arrangements.

# Prostate Cancer Breakthrough Could Cut Deaths By 40 Per Cent, Double Life Expectancy, British Trial Suggests

July 2017

CHICAGO — Scientists are hailing a breakthrough treatment for prostate cancer that promises hope for more than 20,000 men after proving it could slash deaths by almost 40 per cent.

The results from a major Britishrun trial suggest adding the controversial drug abiraterone to standard hormone therapy will double life expectancy in those with the most advanced form of the disease and "effectively cure" it in many less critical patients.

Men whose prostate cancer has spread can currently expect to survive around 3.5 years. However, under the new strategy this is expected to become seven years. It also cuts by 50 per cent the traumatic bone complications that often accompany late-stage prostate cancer.

The results, announced at the American Association of Clinical Oncology conference in Chicago, are relevant to roughly half the 40,000 men who have prostate cancer diagnosed in England each year.

Currently health chiefs only prescribe abiraterone to patients where the disease has spread and who are no longer responding to standard treatment. But in the new 2,000-patient trial, believed to be the largest of its kind ever, doctors combined the hormone regime, known as androgen deprivation therapy, alongside abiraterone in the first instance.



Androgen deprivation therapy slows prostate cancer by preventing testicles from producing testosterone and other similar hormones that fuel tumour growth, but it cannot prevent other glands such as the prostate from continuing to make them.

By contrast, abiraterone is able to stop the production of both testosterone and other androgens throughout the body by targeting the crucial enzyme that converts the hormones.

#### It's a once-in-a-career feeling

"These are the most powerful results I've seen from a prostate cancer trial — it's a once-in-acareer feeling," said Nicholas

James, chief investigator on the Cancer Research UKfunded trial. "This is one of the biggest reductions in death I've seen in any clinical trial for adult cancers."

Around half the men who have prostate cancer diagnosed are not immediately prescribed any treatment — instead, their slow-growing tumours are regularly monitored as part of a "watch and wait" strategy. But of around 20,000 men in

England who do require immediate treatment, 5,000 are diagnosed when the disease cannot be cured. Another 5,000 patients whose cancer mestastises die a year after diagnosis.

Prof James, professor of clinical oncology at Birmingham University, said the projection of seven years' life expectancy with abiraterone was "enormously exciting".

Henry Bodkin The Telegraph June 5, 2017

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" To our online donors from Canada Helps.....thank you for your donations to the Manitoba Prostate Cancer Support Group. It's not possible for us to thank each of you personally, but rest assured that we truly appreciate your generosity. Your contribution makes a difference and helps us provide free support to those prostate cancer patients who want and need it. Every bit helps us to better serve our prostate cancer patient community. Thanks again."

> The Board, Manítoba Prostate Cancer Support Group

## **Biomarker Test Could Reduce Unnecessary Biopsies to Detect Prostate Cancer**

Testing for two biomarkers in urine may help some men avoid having to undergo an unnecessary biopsy to detect a suspected prostate cancer, findings from a new study show.

For many men referred for a prostate biopsy due to an abnormal prostate specific antigen (PSA) test or digital rectal exam (DRE), the biopsy reveals no cancer or a slow-growing cancer that in most cases doesn't require treatment.

In the NCI-supported study, researchers tested urine samples from men referred for a prostate biopsy for elevated levels of two biomarkers (RNA biomarkers called PCA3 and T2:ERG) that studies have shown are associated with

aggressive prostate cancer. Restricting biopsies to only those men with elevated levels of either of the biomarkers would have reduced the number of these unnecessary biopsies by an estimated one-third to one-half, the researchers reported May 18 in JAMA Oncology.

At the same time, this pre-biopsy screening approach would still "preserve the ability to detect the more

aggressive cancers," explained the study's lead investigator, Martin Sanda, M.D., of the Emory University Winship Cancer Institute.

Currently, there are hurdles to implementing this testing in everyday care, Dr. Sanda cautioned. But the study findings "clearly demonstrate" that testing for these biomarkers could help to address some of the limitations of the current paradigm for prostate cancer screening and early detection, he said.

#### From Abnormal Result to Unnecessary Biopsy

With many organizations now recommending against routine screening for prostate cancer with the PSA test, its use has declined in recent years, as has the number of prostate biopsies and prostate cancer surgeries.

PSA testing can help identify men who may have prostate cancer. However, the test cannot help distinguish slowgrowing, or indolent, cancers that are unlikely to ever cause a man harm from aggressive, potentially lethal cancers. biopsy. Prostate biopsies have risks, including pain, bleeding, and potentially serious infections. And the resulting overdiagnosis and overtreatment of indolent prostate cancers identified via biopsy have their own harms and costs.

"The risk of overtreatment remains a valid concern due to the impact of treatment on quality of life," the American Urological Association noted in its most recent consensus statement on PSA screening. These effects can include "lasting impairment in urinary, bowel, and sexual function," the statement explains, as well as potential and long-lasting psychological harms.

#### Adding Biomarkers, Reducing Unnecessary Biopsies

The study from Dr. Sanda and his colleagues was conducted through NCI's Early Detection Research Network (EDRN). It involved two groups of men: a "developmental" cohort, which was used to assess the initial performance of the biomarkers, and a "validation" cohort, which was used to see

One of the biggest challenges for researchers has been identifying a way to screen for prostate cancer that can differentiate between indolent and potentially life-threatening cancers.

One approach being tested is to develop ways to better triage care decisions following an abnormal PSA test, including making more informed decisions about whether to pursue a if the findings would hold in an independent group of men, explained study co-author Sudhir Srivastava, Ph.D., chief of the Cancer Biomarkers Research Group in NCI's Division of Cancer Prevention.

The 516 men in the study's developmental cohort had not previously been diagnosed with



#### (Continued from page 4)

prostate cancer and were being referred for a first-ever prostate biopsy following an abnormal PSA test or DRE. Urine samples from the men collected prior to their biopsy were tested for elevated levels of the two RNA biomarkers.

The PCA3 gene is expressed at high levels in prostate cancers, and a urine test for PCA3 RNA is commonly used in clinical practice to monitor for

potential disease in men who have a negative biopsy following an abnormal PSA test or DRE, Dr. Sanda explained.

There is also a urine test for T2:ERG, which is the result of a fusion, or translocation, of parts of two different genes, TMPRSS2 and ERG. This translocation is found in approximately half of advanced prostate cancers. Currently, the T2:ERG test is only available at a few academic cancer centers, Dr. Srivastava said.

Biopsy specimens from the men were analyzed by pathologists and grouped according to

standard criteria: no cancer or a slowgrowing cancer (indicated by a Gleason score of 6 or less)-, meaning the risk of the tumor progressing was low and the biopsy was likely unnecessary, or a potentially aggressive cancer (indicated by a Gleason score of 7 or greater) that required treatment.

The results of the urine tests were incorporated into an algorithm that would help to advise men to have a biopsy only if they had high levels of either PCA3 or T2:ERG. Compared with a PSA score that could suggest either indolent or aggressive tumors, adding the results of urine biomarker testing, they found, would have limited the need for biopsy to a smaller subset of men, among whom 39% would be found to have aggressive cancer on biopsy, versus only 18% of biopsies identifying aggressive cancers when prostate biopsy is done base on an elevated PSA alone.

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have been averted by using the urine assay results to select men for biopsy."

The results, Dr. Sanda acknowledged, "are not a home run." Using the approach, many men with an indolent cancer would still undergo a biopsy. "Ultimately, there's still room" to improve specificity, he said.

#### A Tough Path to the Clinic

Implementing this prebiopsy testing in clinical practice may not yet be practical because of the limited availability of the T2: ERG test, Dr. Srivastava said.

But Dr. Sanda is hopeful that, based on the study's findings, that may change. Nevertheless, the situation demonstrates that even wellconducted, definitive biomarker studies "are really just one step on the pathway to [the biomarkers' use] in clinical practice," he added.

This type of work "is a key next step to further enhance the utility of

urinary markers to refine detection of aggressive prostate cancer," Dr. Srivastava said.

June 9, 2017 NCI Staff

National Cancer Institute at the National Institutes of Health

https://www.cancer.gov/news-events/cancer-currentsblog/2017/biomarkers-urine-prostate-biopsy

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The specimens for the validation group

participated in an earlier prospective

EDRN study of PCA3 testing, and for

whom urine samples had been collected

and stored. In this group, the specificity

increased from 17% with PSA testing alone to 33% with PCA3/T2:ERG

Overall, the research team wrote, "42%

of unnecessary prostate biopsies would

of detection of aggressive disease

testing.

came from 561 men who had

#### **Prostate Cancer Symptoms And What To Do Next**

July 2017

Dr Cindy Pan discusses the possible symptoms of prostate cancer and what steps to take.

What tests can be done? What's BHP? Dr Cindy Pan answers the important and most common questions regarding prostate cancer symptoms and advises you on what to do next.

There may be no symptoms at all The tricky thing about prostate cancer is that early on there are unlikely to be any symptoms at all since the growth is so small at the beginning and unlikely to put enough pressure on the urethra (the narrow tube that passes through the prostate gland, carrying urine from bladder to penis and beyond) to make much impact.

By time the cancer has progressed to advanced cancer and has spread beyond the prostate there may be symptoms such as pain, discomfort or burning with urination, difficulty passing urine (especially getting the urine stream started), passing urine more frequently (including many times through the night) or needing to go more suddenly or urgently as well as pain in the lower back, hips or upper thighs. There may also be painful ejaculation, blood in semen or urine, decreased sex drive or difficulty with erections.

#### What else could symptoms signify?

The thing is though, these symptoms are far from being exclusive to prostate cancer; there are a number of other conditions that can cause similar symptoms. For example, similar symptoms of urinary difficulty can also (more commonly) be caused by an extremely common condition called 'benign prostatic hypertrophy' or 'BPH' which as the name suggests is a benign (non-cancerous) condition. BPH is a far more common condition in which the prostate is enlarged and the extra tissue encroaches on the urethral passage leading to urinary difficulties but the enlargement is not cancerous and not really life-threatening, albeit it can significantly impair quality of life if left untreated for too long.

#### What tests can be done?

If you have any kind of symptoms such as those described above, you should of course see your GP who can talk to you, examine you and order the appropriate tests. As well as a PSA blood test andDRE (digital rectal exam or 'finger in the back passage') you may need a transrectal ultrasound (to look at the prostate tissue) and biopsy (to sample a small amount of prostate tissue for closer examination and to look for cancer cells).

# What if it is BHP (Benign Prostatic Hypertrophy)?

If you turn out to have BPH, there are a number of options for therapy including medication or a surgical procedure, done by a urological specialist, that essentially bores out a bigger hole for the urine to get through more easily.

#### What if it shows cancer?

If it is cancer, the next step is to grade the severity and extent of the cancer since the impact of a small, contained, slow growing cancer is of course very different to a larger more aggressive cancer that has spread to other parts of the body. Depending on what type of cancer you have your specialists will counsel you as to your options which may include watchful waiting in the case of very early cancers that are 'indolent' or slow growing.

# Can I be tested if I have no symptoms?

Of course you do not have to wait until you have symptoms to be assessed for prostate cancer. Many doctors advocate having an annual PSA blood test and DRE even when you have no symptoms. The age at which you should start this sort of testing will vary somewhat; your doctor will give you more tailored advice depending on your individual medical history, family history and other risk factors for prostate cancer.

#### When should I start being tested?

Some men may choose to begin testing from age fifty; others may start even sooner, especially if there is a strong family history such as having a father or brother (or brothers) diagnosed with aggressive prostate cancers at an early age. Having a strong family history of breast or ovarian cancer is also a potential risk factor as those who inherit the BRCA2 gene are at higher risk of breast, ovarian and prostate cancer and the prostate cancers arising in these men tend to be more aggressive.

# What else can I do to decrease my risk?

While advancing age and family history are both significant risk factors that we cannot really change, there is one risk factor that may be subject to modification: obesity. Having a waist circumference of over 100 cm could increase your risk of prostate cancer as well as multiple other serious or life-threatening conditions like cardiovascular disease and diabetes. Achieving a healthy weight through eating well and being more active, such as by walking daily, can do a world of good.

> Dr Cindy Pan June 12, 2017 bodyandsoul.com.au

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### **Blood Cell Discovery Identifies Patients With Aggressive Prostate Cancer**

July 2017

Patients who have aggressive prostate cancer could be identified by a highly accurate and simple blood test, according to an early study by Queen Mary University of London.

The research discovered rare cells in the blood that could be used to identify patients who are 10 times more likely to die of their prostate cancer, allowing targeted treatments to be offered as early as possible.

Prostate cancer is the most common cancer in Western men and the fourth most common overall, with more than 1.1 million new cases recorded in 2012. Identifying patients with aggressive cancer could have major implications for their treatment; however, methods to detect whether the cancer has spread (metastasis) are costly and expose patients to radiation. A simple blood test that is accurate and has the ability to predict earlier whether the prostate cancer has become metastatic would meet a key unmet medical need.

The study, published in the journal Clinical Cancer Research, analysed blood samples from 81 prostate cancer patients using a new cell capture technology called Parsortix<sup>TM</sup> developed by the British company ANGLE plc. Unlike many other systems, the Parsortix system captures all types of circulating tumour cells (CTCs) -- cancer cells that have left the original tumour and entered the bloodstream prior to spreading around the body.

Metastasis is responsible for over 90 per cent of cancer-related deaths. The researchers investigated various types of CTCs including two that are involved in the metastasis process. The number of 'EMTed' CTCs, which had previously not been possible to capture by many other systems, was associated with poor patient survival, while the presence of 'EMTing' CTCs was closely correlated with whether the patient's cancer had become metastatic.

Using the Parsortix system, the researchers also discovered the presence of rare cells in the blood, known as 'megakaryocytes' - large bone marrow cells which produce platelets



for blood clotting. Megakaryocytes have never before been linked to cancer prognosis, but the presence of these cells was found to be strongly linked to patient survival, with better outcomes for patients with greater numbers of megakaryocytes.

Lead researcher Dr Yong-Jie Lu from QMUL's Barts Cancer Institute said: "This work opens up a wide range of exciting opportunities to benefit cancer patients. We have already started to test more patient samples and will soon move on to wider clinical trials to confirm the efficacy of the test. We are also working to see if this test can be used on other types of cancer."

The team found that combining the number of 'EMTing' CTCs with the patient's 'Prostate-Specific Antigen' level (used in currently available tests) gave the best predictor of metastasis (over 92 per cent accuracy), significantly out-performing all current tests.

They also developed a combined scoring system, taking into account the numbers of both 'EMTed' CTCs and megakaryocytes harvested by the Parsortix system from a patient's blood. The scoring system was developed with 40 patients who had their disease monitored over a 20 month period, and was able to identify patients who were 10 times more likely to die from their disease in the short term.

#### Rebecca Porta, CEO of Orchid -Fighting Male Cancer, the main

funder of the study, added: "This is a very promising study for patients and has the potential to significantly increase the ability of clinicians to act earlier to treat those who are at a higher risk of dying earlier from their cancer. Delivering more appropriate treatment more quickly could help to save lives and prolong life expectancy."

Dr Catherine Pickworth, Cancer Research UK's science information officer, said: "Cancers spreading to new areas of the body is the main reason why people die from the disease. This study shows a potential new way of helping to monitor this spread in men with prostate cancer. It was able to predict which patients were likely to fare better than others, based on the number of a rare type of immune cell found in the blood. This may help doctors make betterinformed treatment decisions based on the extra information, and ultimately improve survival."

The research was funded by Orchid -Fight Male Cancer, Cancer Research UK and ANGLE plc, developers of the ParsortixTM system. The Chinese Scholarship Council provided funding support for PhD studentships to some of the researchers.

#### June 14, 2017

Source: Queen Mary University of London

https://www.sciencedaily.com/ releases/2017/06/170614211224.htm

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#### 2017 MEETINGS

**Aug-17** Dr. Spencer Gibson -Manitoba Institute for Cell Biology - "Genetic research approaches to improved therapy"

**Sep-21** SAE- panel : Dr. Jeff Saranchuk (surgical oncology), Dr. Arbind Dubey (radiation oncology) - "Prostate Cancer....treatment options and follow-up"

> All meetings (except September) will be held at : Cindy Klassen Recreation Complex at 999 Sargent Avenue

> > All meetings are 7 – 9 pm. Everyone Welcome

#### MPCSG BOARD

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#### **Volunteers On Committees**

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