

PCCN Markham



Newsletter

Volume 21 Issue 15

January, 2020

NEXT MEETING

Tuesday, January 14, 2020 - 7:30PM

St. Andrews Presbyterian Church – Main St Markham

Upstairs Hall

(Free Parking & Room access off George Street)

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Speaker Session

Dr. Amanda Adams

Pain & Symptom Management – MSH

« Advance Care Planning »

Q & A Session

Everyone Welcome!!

Coffee, Treats and mingling at 7:00pm

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HAPPY NEW YEAR !

WELCOME TO 2020!

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Immunotherapy offers hope for men with prostate cancer

28 November 2019

A major trial of an immunotherapy drug has shown it can be effective in some men with advanced prostate cancer.

The men had stopped responding to the main treatment options.

Researchers found that a small proportion of men, described as "super responders", remained well even after the trial ended, despite a very poor prognosis before treatment.

Last week it was reported the same drug had [proved effective in treating advanced head and neck cancers](#).

What is immunotherapy?

Immunotherapy uses our own immune systems to recognise and attack cancer cells.

It's already being used as a standard treatment for some cancers such as melanomas - and being tested on many others too.

What did the study find?

It found that one in 20 men with advanced prostate cancer responded to the drug pembrolizumab - and saw their tumours actually shrink or disappear altogether.

Although a relatively small number, some of them gained years of extra life, the study in the Journal of Clinical Oncology found.

A further 19% saw some evidence of improvement.

But most patients in the study lived for an average of eight months on the drug.

The phase II clinical trial, led by the Institute of Cancer Research and the Royal Marsden, involved 258 men with advanced prostate cancer who had run out of all other options on treatment.

Image copyright Getty Images

What happens next?

The most dramatic responses were seen in patients whose tumours had mutations in genes involved in repairing DNA.

Researchers are now investigating whether this group might benefit the most from immunotherapy in a larger trial.

But first, a test to pick out who will respond best is needed, so that doctors know which patients to give it to.

What is prostate cancer?

It's the most common cancer in men in the UK, with [around 47,700 diagnosed in the UK each year](#).

The number of people diagnosed has been rising over the last 10 years.

This is probably because the population is getting older and more people are having PSA tests.

Around 30% of men with advanced or stage 4 prostate cancer survive their cancer for five years or more after diagnosis.

What do experts say?

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"Immunotherapy has had tremendous benefits for some cancer patients, and it's fantastic news that even in prostate cancer, where we don't see much immune activity, a proportion of men are responding well to treatment," says Professor Paul Workman, chief executive of The Institute of Cancer Research.

"A limitation with immunotherapy is that there's no good test to pick out those who are most likely to respond.

"It's encouraging to see testing for DNA repair mutations may identify some patients who are more likely to respond, and I'm keen to see how the new, larger trial in this group of patients plays out."

Professor Johann de Bono, a consultant medical oncologist at The Royal Marsden NHS Foundation Trust, was one of those who led the study.

He said: "We don't see much activity from the immune system in prostate tumours, so many oncologists thought immunotherapy wouldn't work for this cancer type.

"But our study shows that a small proportion of men with end-stage cancer do respond, and crucially that some of these men do very well indeed.

"We found that men with mutations in DNA repair genes respond especially well to immunotherapy, including two of my own patients who have now been on the drug for more than two years."

Last week, a separate trial found the same drug kept some people's advanced head and neck cancers at bay for an average of two years - five times longer than under chemotherapy.

Both studies are part of a growing body of research suggesting immunotherapy could offer hope to an increasing number of cancer patients.

<https://www.bbc.com/news/health-50577728>

Prostate cancer: Home urine test could 'revolutionize diagnosis'

A new pilot study concludes that at-home urine tests could make prostate cancer diagnoses shorter, simpler, and possibly even more accurate.

[Prostate cancer](#) is common, affecting nearly half of males over 50. However, it tends to develop slowly, and in many cases, health professionals do not consider it [clinically significant](#)[Trusted Source](#). In other words, it is not likely to shorten the male's life.

This poses a real problem for medical professionals, as it becomes difficult to know who to treat and when. On the one hand, it is important not to begin treatment if someone does not need it, but on the other hand, they must make sure that someone who is likely to develop aggressive prostate cancer receives the best care. Currently, the two most common diagnostic tools are digital rectal exams and blood tests for prostate-specific antigen (PSA). Although PSA is useful, there are issues. The National Cancer Institute provide an [example](#)[Trusted Source](#):

"[O]nly about 25% of men who have a prostate biopsy due to an elevated PSA level actually are found to have prostate cancer when a biopsy is done."

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For this reason and others, researchers are investigating other ways of testing for prostate cancer, and some are looking to urine.

Prostate urine risk tests

As fluid moves from the prostate through the urethra, it carries [cancer](#) cells and RNA with it. Once the body has passed this genetic and cellular information out in the urine, scientists can use it to detect clues about the presence of prostate cancer.

These tests are called prostate urine risk (PUR) tests, and [studiesTrusted Source](#) have demonstrated that they can help [predictTrusted Source](#) whether or not prostate cancer will become aggressive.

In earlier studies of PUR tests, before researchers collected a urine sample, they conducted a digital rectal exam. As the authors of the new study explain, during the exam, a doctor will "firmly stroke" one side of the prostate. This encourages cellular and genetic material to move from the prostate to the urine sample. Digital rectal exams are unpopular and require a trip to the doctor's office. Researchers from the University of East Anglia in the United Kingdom wanted to determine whether or not it would be possible to skip this procedure while still yielding accurate PUR results.

Their recent study investigated an at-home version of the PUR test. At-home testing allows participants to take a urine sample at home and mail it to the laboratory. This is ideal, because it means that the person can capture the first urination of the day.

As lead researcher Dr. Jeremy Clark explains, "Because the prostate is constantly secreting, the collection of urine from men's first urination of the day means that the biomarker levels from the prostate are much higher and more consistent."

A simpler methodology

To investigate whether or not this home-based approach might be viable, the scientists recruited 14 participants. Each used an at-home urine sampling kit to collect the first urination of the day. They also provided a sample 1 hour after their first urination and another after a digital rectal examination in the clinic (on a different day). This allowed the scientists to compare the results.

They have recently published their findings in the journal [BioTechniques](#).

"We found that the urine samples taken at home showed the biomarkers for prostate cancer much more clearly than after a rectal examination," explains Dr. Clark, "And feedback from the participants showed that the at-home test was preferable."

The study authors now believe that the at-home PUR test could make a substantial difference in the diagnosis of prostate cancer. Dr. Clark explains that, in the future, it could "revolutionize how those on 'active surveillance' are monitored for disease progression."

Currently, these males must visit a clinic once every 6–12 months, where they undergo painful biopsies. This new method would mean that they only need to mail a urine sample to the laboratory.

"It means that men would not have to undergo a digital rectal examination, so it would be much less stressful and should result in a lot more patients being tested."

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Dr. Jeremy Clark

The University of East Anglia researchers designed this new study to test the efficacy of at-home urine collection. Now they know that this methodology works, they plan to use it more widely to investigate aggressive prostate cancer in the near future.

The study authors believe that this protocol might also be useful when "screening for other urinary cancers, such as bladder and kidney." Because the process is simple and cost effective, it will speed up clinical trials studying prostate cancer and make it easier to recruit a greater numbers of participants.

<https://www.medicalnewstoday.com/articles/327215.php#1>

Patients Seek Non-Opioid Options for Cancer Pain Management

NEW YORK, Nov. 20, 2019 /PRNewswire/ --

In 2019, the American Cancer Society is estimating a total of 1.76 million new cancer cases and 606,880 cancer-related deaths in the U.S. The National Cancer Institute expects prostate, lung, breast, and colon/rectal cancer to account for the majority of the new estimated cases. Generally, most cancer patients undergo some type of therapy, whether it is chemotherapy or immunotherapy, and while these therapies can increase the survivability of a patient, there are several drawbacks. One of the most common symptoms associated with cancer therapy is chronic pain. Additionally, pain can also result from the cancerous tumor itself by pushing onto bones, nerves, or other organs. And according to Cancer Research UK, typically 30% to 60% of cancer patients deal with some sort of pain. Meanwhile, up to 90% of patients suffering from advanced cancer face similar pain management issues. Overall, the pain resulting from cancer can severely impact daily life activities such as typical day-to-day jobs, eating, and even sleeping. Most patients are also typically prescribed some sort of opioid-based painkillers, which is used to suppress the pain. However, opioids can also cause adverse effects; opioid painkillers such as morphine and oxycodone are commonly prescribed to cancer patients dealing with pain. Consequently, many patients tend to develop a dependency on opioids. Moreover, side effects associated with opioids includes dizziness, respiratory issues, and depression. And long-term effects can cause life-threatening issues to internal organs such as kidney failure. As a result, pharmaceutical companies have manufactured non-opioid or non-narcotics to help control or suppress pain. Some non-opioid medications can be purchased over-the-counter, however, stronger dosages may require a prescription. And according to data compiled by Mordor Intelligence, the global cancer therapy market was valued at USD 136.25 Billion in 2018. By 2024, the market is expected to reach USD 220.70 Billion while expanding at a CAGR of 8.37%. Q BioMed Inc. (OTC: QBIO), Bayer A.G. (OTC: BAYRY), Novartis AG (NYSE: [NVS](#)), Eli Lilly and Company (NYSE: [LLY](#)), AbbVie Inc. (NYSE: [ABBV](#))

The American Cancer Society mentioned that patients should never accept pain as a normal part of having cancer. The organization said that patients should work with their medical physicians in order to control or lessen the pain as much as possible. Generally, the most common forms of pain are spinal cord compression and bone pain. Spinal cord compression is when a tumor spreads to the spine and presses onto the nerves of the spinal cord. Mild symptoms associated with spinal cord compression are usually back or neck pains. In severe instances, the matter can cause excruciating pain, numbness, or weakness in the arms and legs. The American Cancer Society stated that patients should immediately treat spinal cord compression because it can result in the loss of control over the bladder and bowels or ultimately even lead to paralysis. On the other hand, bone pain is caused when cancer starts or spreads into the bones. Typically, treatment is aimed towards regulating cancer from affecting other parts of the body. Patients are often

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prescribed opioids as a common painkiller, but the adverse effects have prompted many to turn against the use of opioids. In fact, the National Cancer Institute highlighted that many oncology care providers relied heavily on opioids. Now, some primary care doctors no longer prescribe opioids, while some insurance companies have made it increasingly more difficult to obtain these medications. And as a result, more and more prescribers have been reluctant to introduce opioids and are now exploring different alternatives such as therapy or non-opioid drugs. "We providers have to educate our patients to help them understand that the role of opioids and other pain medications is to allow them to move and function better," said the National Cancer Institute. "For some people, that may mean being able to walk around the block. For some, controlling the pain will allow them to return to work. And for those patients who are more fragile, the goal of pain medications may be to make them sufficiently comfortable to be able to hold their grandkids, or to sit comfortably on a hard chair in a church or restaurant."

Q BioMed Inc. (OTCQB: [OBIO](#)) announced breaking news this morning that, "FDA approval of its contract manufacturer IsoTherapeutics Group LLC (ITG). ITG is now cleared to manufacture the Company's FDA approved non-opioid cancer bone pain drug Strontium-89 Chloride USP.

The long-awaited approval of the facility means that this important oncologic pain drug will soon be available to patients in the US and the rest of the world. Q BioMed is now the only FDA-approved source for this drug in the western world. The Company is activating its planned commercial operations to support marketing, sales, and distribution in the US and, soon, in the rest of the world.

Strontium-89 is an FDA-approved non-opioid radiopharmaceutical indicated for the treatment of painful skeletal metastases caused by cancer. The product is administered intravenously once every three months as an alternative to opioid analgesics and plays a critical role in the treatment of metastatic bone pain. The product has a long history of providing well-documented and significant pain relief for patients suffering from the excruciating pain associated with primary cancers that have spread to the bone, including breast, prostate, lung and others. This is the ideal time to be launching Strontium-89 given the current concerns with the over-use of opioid drugs. In addition, as more therapies come to market for the treatment of primary cancers, more people are living longer with metastatic disease. It is estimated that approximately two million patients experience debilitating bone pain from metastatic disease. The opportunity to provide significant pain relief to this group is substantial.

QBioMed CEO Denis Corin said, "We have been anticipating this critical regulatory step for a long time, certainly longer than we hoped, but we are thrilled that we can now move forward with certainty. This is the start of a new chapter in the evolution of our company, and we are looking forward to serving the needs of thousands of patients suffering from metastatic bone pain, providing them the chance to minimize their pain and positively impact life with metastatic disease. With millions of potential patients around the world, this is a major market opportunity for our company. In addition, we are investigating and planning expansion trials to provide additional indications for the drug and entry into an even larger therapeutic market."

We look forward to updating our shareholders and those awaiting the drug availability in the next 60 days."

About Q BioMed Inc: Q BioMed Inc. is a biotech acceleration and commercial stage company. We are focused on licensing and acquiring undervalued biomedical assets in the healthcare sector. Q BioMed is dedicated to providing these target assets with strategic resources, developmental support, and expansion capital to ensure they meet their developmental potential, enabling them to provide products to patients in need. Please visit <http://www.QBioMed.com> and sign up for regular updates."

<https://www.pnewsire.com/news-releases/patients-seek-non-opioid-options-for-cancer-pain-management-300961643.html>



Opioid Use in Prostate Cancer Clinical Trials Appears to Vary by World Region

[Hannah Slater](#) November 19, 2019

A *JAMA Oncology* investigation found that opioid use appeared to vary by world regions in prostate cancer clinical trials, indicating that this variability should be considered in international clinical trials using delay in opioid initiation as an end point or otherwise incorporating opioid use into trial end points.¹

This study documented the variability in opioid analgesic use across regions and countries, suggesting the existence of disparities in oncologic pain management in the previously unexplored controlled trial setting. If region is not a stratification factor, then sponsors may wish to assess regional variability when analyzing these end points, depending on their countries of recruitment.

In this international phase III randomized trial of 9,670 participants, patients in Eastern Europe (33%) and Asia (30.7%) were less likely to use opioids compared with patients in North America (59.1%), Oceania (54.1%), and Western Europe (56.1%). Across all regions, opioid use was more common in patients with high tumor burden and more advanced disease.

“Possible explanations for this disparity include local attitudes and practices as well as lack of access to opioids and potential undertreatment for patients in some cases,” the researchers wrote.

According to the American Cancer Society, sufficient access to opioid drugs for use in palliative care is often not available in resource-limited countries because of regulatory or pricing obstacles, lack of training and knowledge among health workers, and weak health care systems. The World Health Organization (WHO) has played an important role in encouraging effective pain management and monitoring the availability of opioids internationally.²

Variation in opioid use was seen across countries within a region as well. In Asia and Eastern Europe, a higher percentage of patients from high-income countries used opioids compared with those from not-high-income countries. However, variations were also seen across high-income countries within a region.

The Global Opioid Policy Initiative survey in Asia found that opioid consumption was highest in Korea, followed by Japan, and then China, a finding that was also reflected in this study. Similarly, this study’s finding of comparatively lower opioid use in Ukraine and Russia is consistent with results of previous research on country- and region-level opioid consumption.

“To our knowledge, no study has compared opioid use across patients with cancer from a range of different countries within the clinical trial setting,” the researchers wrote.

Opioids that were not classified using ATC codes were not captured, and the only excluded indications of opioid use were for pain prophylaxis associated with procedures.

Previous research on disparities in global opioid use has examined formulary availability and cost or evaluated data from the International Narcotics Control Board.

References:

1. Roydhouse JK, Suzman DL, Menapace LA, et al. Global Variation in Opioid Use in Prostate Cancer Trials. *JAMA Oncol*. doi:[10:1001/jamaoncol.2019.2971](https://doi.org/10.1001/jamaoncol.2019.2971).
2. American Cancer Society. Global Cancer, Facts & Figures, 4th Edition. American Cancer Society website.

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[cancer.org/content/dam/cancer-org/research/cancer-facts-and-statistics/global-cancer-facts-and-figures/global-cancer-facts-and-figures-4th-edition.pdf](https://www.cancernetwork.com/prostate-cancer/opioid-use-prostate-cancer-clinical-trials-appears-vary-world-region). Published 2018. Accessed November 18, 2019.

<https://www.cancernetwork.com/prostate-cancer/opioid-use-prostate-cancer-clinical-trials-appears-vary-world-region>

CBD for cancer: Everything you need to know

- [Complementary therapy](#)
- [Cancer prevention](#)
- [Can CBD treat cancer?](#)
- [Side effects](#)
- [Takeaway](#)

Cannabidiol, or CBD, is one of many cannabinoids in the cannabis plant gaining popularity in the world of natural medicine because it appears to offer the body many benefits. While there is some debate around the topic, some people suggest using CBD in the treatment of cancer.

Although it is too early to make any claims about CBD for [cancer](#) treatment, this compound may help manage symptoms that occur due to this disease or its treatment.

It is important to note that CBD is not the same as tetrahydrocannabinol (THC), which is an active cannabinoid in cannabis that causes a "high" when a person smokes or ingests it. Researchers are also looking at the possibility of using CBD for treating [anxiety](#) and chronic pain.

While the initial results from small studies on cancer cells and CBD are promising, they are not conclusive. In this article, learn about the effects of CBD on cancer and how it may help ease the side effects of cancer treatments.

CBD as a complementary therapy

The majority of the evidence available suggests that CBD and cannabis therapies may complement cancer treatment. CBD may help people with cancer by:

Stimulating appetite

CBD oil may help relieve pain and stimulate appetite.

Many people who are going through cancer treatment experience nausea and loss of appetite.

These symptoms can make it difficult for them to maintain a healthy weight.

Ingested cannabis that delivers THC and other cannabinoids to the bloodstream [may help stimulate the appetite](#)[Trusted Source](#), but there is no evidence that CBD alone can have this effect.

Pain relief

Both cancer and its treatment can lead to pain. Cancer often causes pain due to [inflammation](#), pressure on internal organs, or nerve injury. When the pain is severe, it can even become resistant to opioids, which are powerful pain relievers.

CBD indirectly acts on the CB2 receptors, which may help with widespread pain relief by reducing inflammation.

THC acts on the CB1 receptors, which may be helpful for pain resulting from nerve damage.

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Nausea

Cannabis and cannabinoids such as CBD may also be helpful for people with cancer who experience regular nausea and vomiting, especially when this is due to [chemotherapy](#).

However, the anti-nausea effect appears to come from THC in cannabis, rather than from CBD. People looking to try cannabis to reduce nausea should prepare themselves for the potential psychoactive effects of THC in prescribed cannabis products and discuss them with a doctor.

Many people find relief from low doses of THC. Prescription versions of synthetic THC that have fewer side effects are available.

CBD for cancer prevention

Some people wonder about using cannabis or CBD to prevent cancer. The [National Cancer Institute \(NCI\) Trusted Source](#) reviewed numerous studies regarding the link between cannabis and cancer and found that the research has mixed results.

[An older study Trusted Source](#) of 64,855 men from the United States found that cannabis use did not increase the risk of tobacco-related cancers. However, this same study also found that male cannabis users who never smoked tobacco had an increased risk of [prostate cancer](#).

On the other hand, the authors of a [2015 study Trusted Source](#) found a promising relationship between cannabis and bladder cancer. After adjusting for several factors, they found that that cannabis users had a 45-percent lower risk of developing bladder cancer.

While research has shown that cannabis smoke still produces carcinogens, the link between inhaled marijuana and cancer remains inconclusive.

However, ingesting CBD extract does not expose the body to the same carcinogens as smoking marijuana. More long-term studies in humans are necessary to determine what role, if any, CBD has to play in the prevention of cancer.

Can CBD treat cancer?

There are currently no large clinical trials that are investigating the use of cannabis or cannabinoids as a cancer treatment. Small pilot studies exist, but the research is still in its early stages.

In 2016, researchers [noted](#) that the use of cannabinoids shows promise in the fight against cancer. The authors found that cannabinoids seem to inhibit the growth of many different types of [tumor](#) cell in both test tubes and animal models.

However, they also noted that some dosages or types of cannabinoid might suppress the immune system, allowing tumors to grow unchecked.

Much more research is necessary to discover the possible therapeutic uses of cannabinoids in cancer treatment.

Side effects of CBD

The cannabinoid receptors in the brain do not act the same way as many other drug receptors. For this reason, there may be a lower risk of side effects.

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Unlike traditional medications for pain management, there are no apparent lethal doses of CBD. This is because the drug does not affect the [central nervous system](#) in the way that opiates do.

However, the cannabinoid receptors are widespread in the body, so CBD affects not only the brain, but also many other organs and tissues.

Small-scale studies have found that people generally tolerate CBD well, but some individuals may experience mild side effects.

These include:

- [fatigue](#)
- [diarrhea](#)
- changes in appetite
- changes in weight

CBD can also interact with a range of medications and cause liver damage. These medications include:

- [antibiotics](#)
- [antidepressants](#)
- anti-anxiety medications
- anti-seizure medications
- blood thinners
- chemotherapy drugs
- muscle relaxers
- sedatives, or sleep aids

It may be necessary to speak to a doctor about using CBD products, as they can also interact with some over-the-counter aids and supplements. People should exercise caution when taking CBD alongside prescription medications that warn about possible [interactions with grapefruit](#) [Trusted Source](#).

Increased liver toxicity is a possible side effect of CBD. In one [2019 study](#) in the journal *Molecules*, researchers administered varying doses of CBD to mice. The mice that received higher doses experienced liver damage within 1 day.

Clinical trials of Epidiolex — the brand name of the CBD medication that the Food and Drug Administration (FDA) have approved to treat [epilepsy](#) — [did not find](#) any indications of physical dependence.

However, the manufacturers of Epidiolex also warn of its potential to cause liver problems in the product's [safety information](#).

As the [NCITrusted Source](#) note, CBD inhibits specific enzymes that may be important for cancer therapies. Cancer treatments that rely on these enzymes could be less effective if a person takes CBD.

Takeaway

While CBD does indeed appear to be a beneficial compound for many cancer symptoms, no scientific research suggests that CBD can be an effective cancer treatment.



Cannabinoids and cannabis itself may have their place as a complementary treatment in some cases, for example, for people who need help managing chronic pain and nausea.

People should always talk to a doctor before using CBD or any other compound during cancer treatment to ensure that it will not react with any of the medications that they are taking.

<https://www.medicalnewstoday.com/articles/324745.php#side-effects>

High-fat diet proven to fuel prostate cancer progression by imitating a key cancer alteration

November 28 2019



Dr David Labbé

What molecular event happens for prostate cancer to progress faster and to be deadlier when patients eat a high-fat diet? This is the question Dr. David P. Labbé, a scientist at the Research Institute of the McGill University Health Centre (RI-MUHC), and his colleagues recently elucidated. In a study published in *Nature Communications*, they showed that saturated fat intake induces a cellular reprogramming that is associated with prostate cancer progression and lethality. These findings could have a clinical utility in identifying patients at higher risk of a more aggressive, lethal disease. In addition, they suggest that dietary intervention involving the reduction of animal fat, and specifically saturated fat consumption in men with early-stage prostate cancer, could possibly diminish or delay the risk of disease progression.

Some genes – called oncogenes – play a role in cancer initiation and progression. MYC is one of those.

“In this paper, we showed that by mimicking a MYC overexpression, saturated fat intake makes prostate cancer worse,” says Dr. Labbé, who started this study at the Dana-Farber Cancer Institute in the United States, under the supervision of Dr. Myles A. Brown, Director of the Center for Functional Cancer Epigenetics and Emil Frei III Professor of Medicine at Harvard Medical School.

“MYC overexpression profoundly rewires cellular programs and bolsters a distinctive transcriptional signature. MYC is a key factor in tumorigenesis, *i.e.* it induces malignant properties in normal cells and fuels the growth of cancer cells,” adds Dr. Labbé, who is also assistant professor in the Department of Surgery, Division of Urology at McGill University.

Based on answers to validated food frequency questionnaires obtained from the Health Professionals Follow-Up Study and the Physician Health Study cohorts, researchers were able to stratify prostate cancer patients based on their fat intake – high-fat diet vs. low-fat diet – and the type of fat they were eating – either

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saturated, monounsaturated or polyunsaturated fat. By integrating dietary and gene expression data from 319 patients, researchers discovered that animal fat and specifically saturated fat consumption mimicked a MYC overexpression. They validated their findings *in vivo* using a murine prostate cancer model.

Strikingly, patients who had the highest level of the saturated fat intake (SFI) MYC signature were four times more likely to die from prostate cancer, compared to patients with the lowest level, independently of the patient's age or year at diagnosis. Even after adjusting the results for cancer Gleason grade – an indicator of the aggressiveness of the disease – this association remained significant.

Since fat consumption could be linked to an increase in body fat and obesity, and since obesity is also a risk factor associated with prostate cancer, Dr. Labbé used the Body Mass Index (BMI) to make sure that it was only saturated fat intake – and not obesity – that promoted the progression to a metastatic and lethal disease. "Even after removing obesity from the equation, patients with high levels of the SFI-MYC signature are still three times more likely to die of prostate cancer," says Dr. Labbé. "Epidemiological studies have previously reported that saturated fat intake is associated with prostate cancer progression. Our study provides a mechanistic underpinning to this link and a basis to develop clinical tools aimed at reducing the consumption of saturated fat and increasing the odds of surviving."

The study also showed that for saturated fat to induce MYC reprogramming, the tissue needs to be transformed.

"In a prostate cancer patient, the prostate contains both tumour and normal tissue," explains Dr. Labbé. "We showed that saturated fat intake only affects the transcriptional program in the tumour tissue."

"Altogether, our findings suggest that a substantial subset of prostate cancer patients, including some without MYC amplification, may benefit from epigenetic therapies targeting MYC transcriptional activity or from dietary interventions targeting metabolic addictions regulated by MYC."

Knowing the dietary pattern of a patient or his level of physical activity, clinicians could eventually suggest some specific intervention to decrease the likelihood of progression to a lethal disease. But in order to do that, more research is needed.

"The impact of diet on cancer development has been first established more than 100 years ago. However, lifestyle-related data is only sparsely collected among patients, thereby limiting our capacity to define the molecular link between lifestyle factors and cancer initiation, progression and lethality," says Dr. Labbé. "We will start soon here at the RI-MUHC to gather dietary and physical activity and assess body fatness information from patients undergoing screening tests for different cancers. And with that data, combined with research in the laboratory, we hope to be able to build personalized interventions for patients who are more at risk of having their cancer progress rapidly, and to ultimately improve outcomes."

<https://publications.mcgill.ca/medenews/2019/11/28/high-fat-diet-proven-to-fuel-prostate-cancer-progression-by-imitating-a-key-cancer-alteration/>



Reducing the side-effects of prostate hormone therapy with exercise

December 9, 2019

Summary:

A prescription of short-term exercise for patients with advanced prostate cancer could help to reduce the side-effects of hormone therapy, according to new research. The trial aimed to reduce the adverse side-effects of hormone therapy such as weight gain and an increased risk of heart problems. The results show that a three month programme of aerobic and resistance training intervention prevented adverse changes in cardiopulmonary fitness and fatigue

A prescription of short-term exercise for patients with advanced prostate cancer could help to reduce the side-effects of hormone therapy, according to new research from the University of East Anglia.

Researchers from the Norfolk and Norwich University Hospital (NNUH) and UEA led a trial which involved patients who were due to start androgen deprivation therapy (ADT).

Fifty patients took part in the research study, with half of the participants taking part in two supervised exercise sessions a week for three months at specialist exercise science facilities at UEA.

The trial aimed to reduce the adverse side-effects of hormone therapy such as weight gain and an increased risk of heart problems and assessed participants' health three months after their exercise programme.

The findings, which have been published in the *British Journal of Urology International (BJUI)*, showed that the three month programme of aerobic and resistance training intervention prevented adverse changes in cardiopulmonary fitness and fatigue for those taking part in the trial.

Prof John Saxton, from UEA's Norwich Medical School, said: "Structured exercise programmes have much to offer people living with common cancers. Hormone treatments for prostate cancer are known to have undesirable side-effects, which increase a man's susceptibility to cardiovascular disease.

"This research shows that some of the harmful side-effects of hormone therapy are reduced in men who begin to exercise regularly around the same time that these drugs are prescribed.

"Our findings have important implications for the quality of prostate cancer survival," he added.

Wilphard Ndjaveva, Clinical Fellow for Urology at NNUH, said: "All the patients really enjoyed the sessions and the results have suggested that exercise does work to reduce these harmful side effects of treatment. It is one of only two studies in the world to look at this."

"After the supervised exercise was withdrawn, differences in cardiopulmonary fitness and fatigue were not sustained, but the exercise group showed higher quality of life and reduced cardiovascular risk compared to the control group."

"These findings have important implications for clinicians concerned with the management of ADT-related side-effects."

<https://www.sciencedaily.com/releases/2019/12/191209110515.htm>



NOTABLE

Prostate Cancer Canada and the Canadian Cancer Society agree to amalgamate

Toronto. December 12, 2019 –

Prostate Cancer Canada and the Canadian Cancer Society (CCS) are excited to announce their intention to embark upon a strategic amalgamation that will strengthen and support cancer research, education and the needs of Canadians and their families dealing with the disease. As part of the agreement, Prostate Cancer Canada's activities and initiatives will remain an important part of the Canadian Cancer Society.

"For 25 years, Prostate Cancer Canada has been the leading national charity investing in world class research, increasing awareness about the disease and supporting Canadians and their families dealing with the most common form of cancer among men," said Peter Coleridge, President and CEO of Prostate Cancer Canada. "We have helped reduce the death rate from the disease by 50%, and with 1 in 9 Canadian men developing prostate cancer in their lifetime, this amalgamation will help ensure that our impact on patient outcomes will not only continue but also increase."

CCS has successfully merged its operations once before, with the Canadian Breast Cancer Foundation (CBCF) in early 2017. The first merger of its kind between two large non-profit health charities, that amalgamation helped the newly merged entity achieve an unprecedented turnaround, including a 28% year-over-year reduction in fundraising expenses, increasing funding directed towards core mission-related activities and maximizing the impact of donor dollars.

"We have enormous respect for Prostate Cancer Canada and we're excited to join forces," said Andrea Seale, Chief Executive Officer of the Canadian Cancer Society. "A combined organization will allow us to increase impact – funding life-saving research and making life better for people with cancer, their caregivers and families. As we eliminate duplication and share best practices, more donor dollars will go to this important mission. Donors ask us why there is so much duplication among cancer causes – instead of competing, we're joining together to redefine the cancer charity sector in Canada."

Andrea Seale will lead the amalgamated organization. Peter Coleridge is committed to overseeing a smooth transition through the amalgamation, which requires federal government review and approval. It is anticipated that the process will be finalized in early 2020.

<https://www.prostatecancer.ca/In-The-News/Foundation-News-Releases/Prostate-Cancer-Canada-and-the-Canadian-Cancer-Soc>

PCCN Markham



Newsletter

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QUOTABLE

"A happy New Year! Grant that I May bring no tear to any eye When this New Year in time shall end Let it be said I've played the friend, Have lived and loved and labored here, And made of it a happy year." Edgar Guest

"Be always at war with your vices, at peace with your neighbors, and let each new year find you a better man" Benjamin Franklin

PCCN Markham
Prostate Cancer Support Group
Meets the 2nd Tuesday
Every month
September – June
St. Andrew's Presbyterian Church
143 Main St Markham

The Markham PCCN Prostate Support Group is generously supported by Dr. John DiCostanzo, Astellas Pharma, St. Andrews Presbyterian Church, PCCN, and the Canadian Cancer Society.

The group is open to all; survivors, wives, partners, relatives and those in our community who are interested in knowing about prostate health. Drop by St Andrews Presbyterian Church 143 Main Street Markham at 7:30PM, the 2nd Tuesday every month from September to June. The information and opinions expressed in this publication are not endorsements or recommendations for any medical treatment, product, service or course of action by PCCN Markham its officers, advisors or editors of this newsletter.

Treatment should not be done in the place of standard, accepted treatment without the knowledge of the treating physician.

The majority of information in this newsletter was taken from various web sites with minimum editing. We have recognized the web sites and authors where possible.

PCCN Markham does not recommend treatment, modalities, medications or physicians. All information is, however, freely shared.

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We look forward to your feedback and thoughts. Please email suggestions to markhampccn@gmail.com

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