The Digital Examiner



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CHANGE BROUGHT ON BY A PROSTATE CANCER DIAGNOSIS

A lot of things happen to a guy when he is diagnosed with prostate cancer.

Anxiety, brain fog, and fear of the unknown invade one's mind. Day-time and sleep patterns are disrupted. The medical machinery of our public health care system kicks in, with all of its good things, and also its warts and wrinkles. Men and their wives, partners and caregivers are quickly introduced to a new medical language and set of principles.

I've often said that prostate cancer chose me (aren't I lucky!) and I didn't choose it.

Strangely, no one seems to really know why some of us were assigned to the chosen minority (1 in 7) of men to be diagnosed with prostate cancer.

BETWEEN THE SHEETS of this issue of **The Digital Examiner**, I introduce you to efforts being taken to understand the biology and genetic basis for various types of prostate cancer afflicting men.

What is clear, is that we are not all the same and 'one size (treatment) does not fit all'. However, one thing we all need is sleep. Read on

Stewart Campbell, Executive Director

Chris Carruthers, PhD Integrative Healthcare



For over thirty years, Chris Carruthers, BSc, MSc, PhD has been helping people recover from illness. She has a graduate degree in Coaching and Exercise PhysiolAugust 2015

Number 191

Tuesday, August 11, 2015 Meeting Schedule

5:00 PM: Moxie's Grill & Bar

888 7th Ave SW, Calgary, AB

6:30 PM: Wives, Partners & Caregivers

Room 313 at Kerby Centre

6:30 PM: Newly Diagnosed & Active Surveillance Group

Room 311 at Kerby Centre

6:30 PM: Warriors Group

Board Room at Kerby Centre

7:30 PM: General Meeting

Kerby Centre Lecture Theatre

Spotlight on Sleep:
Fundamentals to
Fight Fatigue
Chris Carruthers, PhD
Integrative Healthcare

Our General Meetings are open to the public and free. Cookies, fruit and refreshments will be served.

Come join us at the Kerby Centre at 1133 7 Avenue SW, Calgary, AB T2P 1B2.

Parking is FREE at the Kerby Centre in lots on both sides of 7th Ave. The WEST LRT stops at the Kerby Station, right at the front door of the Kerby Centre.

ogy and a PhD in Integrative Healthcare. In all her work, Chris exemplifies energy, knowledge, and professionalism.

Chris is most well known for her education in the fields of chronic disease management and integrative cancer care. Her most popular work is the **Sleep Well Tonight** program, which has helped thousands of people improve their sleep at night and their energy during the day.

For everyone she serves, Chris uses an integrative health approach, which combines the best systems of medicine, practitioners, and practices into a personalized healing plan that considers all aspects of the individual.

Alberta Prostate Registry and Biorepository

Biomarkers is a fancy word for laboratory tests that reveal the true nature of prostate cancer. These biomarkers could be genes, proteins, and even fragments of cancer cells that can be detected using modern laboratory technologies.

To learn more about how prostate cancers can be characterized by new biomarkers, thousands of biospecimens — blood, urine, semen, tissue, etc. need to be collected before and after prostate cancer is diagnosed.



The Alberta Prostate Registry and Biorepository is a project of the Alberta Prostate Cancer Research Initiative (APCaRI) to collect specimens from 8800 men over the next 5 years. By 2020, Alberta prostate cancer researchers will have a comprehensive registry and biorepository containing personal, demographic, health and prostate cancer specific information along with biospecimens including blood (serum, plasma, buffy coat, and red blood cells), urine, semen and tissue from 8800 patients collected pre-diagnosis and at other times across the disease continuum.

Patients will be entered into 'cohort studies' in which their specimens are collected and analyzed and patients' health outcomes recorded. As the Registry builds over thousands of patient visits and observations over 10 or more years, the data will be turned into knowledge that will inform future generations of doctors and patients.

If you are interested to participate in the study, you are encouraged to ask your doctor if you are eligible to enroll:

- In Calgary, recruitment will occur at the Prostate Cancer Centre and Tom Baker Cancer Centre. You may also contact the Calgary study coordinator at 403-943-8942.
- In Edmonton, contact the Alberta Urology Institute, Cross Cancer Institute and Kaye Edmonton Clinic.



We sincerely thank George Brookman and West Canadian Digital Imaging Inc. for their support to print and distribute **The Digital Examiner**.

Prostate cancer screening characteristics in men with BRCA1/2 mutations attending a high-risk prevention clinic

INTRODUCTION: The prostate-specific antigen (PSA) era and resultant early detection of prostate cancer has presented clinicians with the challenge of distinguishing indolent (nonaggressive) from aggressive tumours.

Mutations in the BRCA1/2 genes have been associated with prostate cancer risk and prognosis. We describe the prostate cancer screening characteristics of BRCA1/2 mutation carriers, who may be classified as genetically-defined high risk, as compared to another high-risk cohort of men with a family history of prostate cancer to evaluate the utility of a targeted screening approach for these men.

METHODS: The researchers reviewed patient demographics, clinical screening characteristics, pathological features, and treatment outcomes between a group of BRCA1 or BRCA2 mutation carriers and age-matched men with a family history of prostate cancer.

RESULTS: Screening characteristics were similar between the mutation carriers (n = 53) and the family history group (n = 53). Some cancers would be missed in both groups by using a PSA cut-off of >4 ug/L. While cancer detection was higher in the family history group (21% vs. 15%), the mutation carrier group was more likely to have intermediate- or high-risk disease (88% vs. 36%). BRCA2 mutation carriers were more likely to have aggressive disease, biological recurrence, and distant metastasis.

CONCLUSIONS: From their study, regular screening appears justified for detecting prostate cancer in BRCA1 and BRCA2 carriers and other high-risk populations. Lowering PSA cutoffs and defining monitoring of PSA velocity as part of the screening protocol may be useful. BRCA2 is associated with more aggressive disease, while the outcome for BRCA1 mutation carriers requires further study. Large multinational studies will be important to define screening techniques for this unique high-risk population.

Source: Walker R, Louis A, Berlin A, Horsburgh S, Bristow RG, Trachtenberg J. Department of Surgical Oncology, University Health Network, Toronto, ON; Radiation Medicine Program, Princess Margaret Cancer Centre, University Health Network, Toronto, ON. Can Urol Assoc J. 2014 Nov;8(11-12):E783-8. doi: 10.5489/cuaj.1970



PROSTAID Calgary is

offering \$100 each to 8 men and women dealing with prostate cancer to attend this conference in

Los Angeles. If interested, phone Stewart at 403-455-1916. For information about the conference, visit www.pcri.org.

Biomarker Predicts Aggressive Prostate Cancer in African American Men

African American men have a greater incidence of prostate cancer and greater mortality compared with their European descent counterparts. Both genetic susceptibility and socioeconomic factors have been linked to these disparities.

Because differences in the aggressiveness of disease at diagnosis have been noted between the two, Kosj Yamoah, MD, PhD, of Thomas Jefferson University Hospital in Philadelphia, Edward Schaeffer, MD, PhD, of the James Buchanan Brady Urological Institute at Johns Hopkins School of Medicine, and colleagues thought there may be a biological difference in prostate cancer development between the two groups.

The researchers have identified six biomarkers that together may predict the risk of more aggressive prostate cancer among African American men. If validated in future studies, the six biomarkers might be used to predict the risk of ethnicity-dependent clinical outcomes. They may also help explain why African Americans are more likely to have faster-progressing prostate cancer and decreased survival.

Of three commercial biomarker tests used in clinical practice, none exhibit ethnicity-specific predictive value. "The ability to identify a subset of African American men who harbor aggressive disease will enable clinicians to more accurately risk stratify these patients for appropriate treatment recommendations that improve disease control and ultimately reduce the disparities in outcomes in this patient population," concluded the study authors.

Source: Anna Azvolinsky, PhD. www.cancernetwork.com. Published online before print July 20, 2015, doi: 10.1200/JCO.2014.59.8912

Volunteer Opportunities

- 1. PROSTAID Calgary Board of Directors
 - a. Secretary position
- 2. PROSTAID Calgary booths
 - Wild Wednesday Cruise Nights
 Grey Eagle Resort & Casino, 4PM 8PM,
 Every Wednesday during August and September
 - Calgary Stampeder Home Games
 Tailgate Parties in September
- 3. Cowboys Casino

Monday / Tuesday, December 28 / 29, 2015.









If you can help, please phone Stewart at 403-455-1916 or email info@pccncalgarry.org. I'm sure you'll have fun.

Young-Age Prostate Cancer

Although prostate cancer is a disease of the elderly, its diagnosis is not uncommon in men younger than 55 years.

Both ethnic, familial and genetic factors play a role in the early onset of prostate cancer, but the biology, particularly of low-grade prostate cancers detected at young age is not well understood. Autopsy studies have shown a high prevalence of Gleason score 6 prostate cancers in men under 55 years, but mortality of prostate cancer at this young age is almost negligible.

An important question is whether young-age prostate cancers are biologically and genetically different than prostate cancers diagnosed at older age. Several findings suggest that this is the case for some young-age prostate cancers:

- Men at young age with a prostate cancer diagnosis may harbor more often a familial prostate cancer, since familial prostate is detected usually 6 to 7 years earlier than sporadic disease and the risk of (familial) prostate cancer increases when a family member develops the disease at a younger age.
- 2) Particularly in early-onset prostate cancers, a germline aberration is more frequent than in older men diagnosed with prostate cancer. BRCA2 carriers have an estimated 23-fold increased risk of prostate cancer for men aged less than 55 and these cancers often present with aggressive features, such as intra-ductal carcinoma, extraprostatic extension and lymph node metastases. Nevertheless, BRCA2 carriers represent just 2% of the population of young men with a diagnosed prostate cancer versus an estimated 0.5-0.7% in the general population.
- 3) The TMPRSS2-ERG fusion gene is more common in young -age prostate cancer (about 60%) versus older age prostate cancer (about 40%). This would point at a more activated androgen-androgen receptor axis in young-age prostate cancers. More recently, amplification of the L-Myc gene appeared to be age-dependent, occurring more frequently at younger age. The latter finding, however, needs further confirmation in a separate population, comprising more young-age prostate cancers.

The higher frequency in young-age prostate cancer patients of particular molecular-genetic alterations would suggest a distinct pathogenesis and biological behaviour. More study of young-age prostate cancers is warranted to obtain solid evidence for potential benefits of a tailored therapeutic approach of these patients.

Source: Hussein S, Satturwar S, Van der Kwast T. Department of Laboratory Medicine, Kuwait Cancer Control Center, Kuwait, Kuwait; Department of Pathology, Princess Margaret Cancer Centre, University Health Network, Toronto, Ontario, Canada. J Clin Pathol. 2015 Apr 2. pii: jclinpath-2015-202993. **doi:** 10.1136/jclinpath-2015-202993

Low Risk Prostate Cancer Cases Upgraded at Prostatectomy

FRIDAY, July 17, 2015 (HealthDay News) -- Many clinically low-risk prostate cancer patients are upgraded at prostatectomy, according to a recent study. Kathryn T. Dinh, from Harvard Medical School in Boston, and colleagues studied 10,273 patients from the SEER database diagnosed with clinically low-risk disease. (SEER is a population based cancer registry, sponsored by the US national Cancer Institute, that collects demographic characteristics, cancer incidence, treatment and survival data for ~28% of the US population). The authors studied the incidence of pathological upgrading (Gleason score) and upstaging (extent of disease). Participants who had cT1c/T2a, PSA <10 ng/ml, and Gleason 3+3=6 in 2010 to 2011 and treated with prostatectomy were identified and included in analyses.

The researchers found that 44 and 9.7 percent of cases were upgraded and upstaged, respectively, at prostatectomy. Age, PSA, and % positive cores, but not race, correlated with occult, advanced disease on analysis of 5,581 patients. Significant associations with upgrading were seen for age >60 years, PSA >5.0 ng/ml, and >25 % positive cores. These variables were also associated with upstaging.

"Low-risk patients should be considered for further diagnostic imaging or guided biopsies based on PSA and % positive cores before choosing active surveillance," the authors write.

Radium-223 (Xofigo) for the treatment of castration-resistant prostate cancer

The vast majority of patients with metastatic castrationresistant prostate cancer (mCRPC) develop bone metastases. Bone metastases are a source of significant morbidity and affect quality of life in these patients. Several bonetargeting agents are approved for the treatment of bone metastases in prostate cancer, including bisphosphonates, denosumab, and radiopharmaceuticals.

Radium-223 is a novel first-in-class alpha-emitting radiopharmaceutical that has been approved for treatment of patients with mCRPC with bone metastases. Radium-223 delivers cytotoxic radiation to the sites of bone metastases and offers the advantage of minimal myelosuppression. The landmark Phase III ALSYMPCA trial demonstrated that, in addition to providing bone-related palliation, radium-223 can also prolong overall survival in patients with mCRPC with bone metastases in the absence of visceral metastases and in the absence of lymphadenopathy greater than 3 cm.

Source: Joelle El-Amm and Jeanny B Aragon-Ching. George Washington University Medical Center. OncoTargets and Therapy 2015:8 1103-1109.

SPOTLIGHT ON SLEEP: Fundamentals to Fight Fatigue

"A good laugh and a long sleep are the best cures in the doctor's book." Irish Proverb

Is sleep REALLY that important to recover from illness and lower health risks? Why is it so essential?

Those magic darkness hours are vitally necessary to maximize learning and decision-making, maintain brain health, sort and retrieve our short and long-term memories, improve our immunity, maintain a healthy energetic metabolism and body weight, and stay safe and avoid accidents.

Chris Carruthers PhD wants to convince us why we need to appreciate and prioritise sleep. On Tuesday, August 11 at the Kerby Centre, Chris will:

- Visit our Wives, Partners and Caregivers from 6:30PM— 7:30PM, and
- Speak to our General Meeting from 7:30PM—9:00PM
 - ◆ 'Four Fundamentals to Fight Fatigue', and
 - ◆ The latest in sleep research from the recent annual American Academy of Sleep Medicine conference.

Sleep is a partially learned skill, and you can take control of how well you sleep and how much energy you have each day. Chris has created a simple method to master sleep. She will outline the 4 Fundamentals that are key to fighting

- love your sleep environment,
- rewire your thinking about sleep.
- make sleep-smart strategic lifestyle choices, and
- learn 3 simple skills to face any sleep challenges.

Chris will cover the steps to take to master these 4 fundamentals, and help you adopt Top 10 Quick Tips to Sleep Well Tonight.

The Exhausted Person's Guide to the 4 Fundamentals to Overcome Insomnia and Conquer Fatigue www.chriscarruthers.com



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RVs. Vehicles are picked-up by Donate-a-Car and sold at auction or recycled. PROSTAID Calgary issues the income tax receipt to donors.

To donate a vehicle to **PROSTAID Calgary**, visit our website at www.pccncalgary.org and key the Donate tab in the menu bar, or go directly to our Donate-a-Car webpage here.