KELOWNA PROSTATE CANCER SUPPORT & AWARENESS GROUP NEWSLETTER

OKANAGAN PROSTATE RESOURCE CENTRE SOCIETY

Okanagan Prostate Resource Centre

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Francois Bachand, MD, FRCPC was the guest speaker at our support group meeting in September. Dr. Bachand is one of the newest Radiation Oncologists at the Cancer Centre for the Southern Interior in Kelowna coming to Kelowna in May. Dr. Bachand gave everyone present firstly a brief overview about prostate cancer he then followed up by explaining the Gleason Scoring system and then the different [T] stages of prostate cancer. Dr. Bachand stressed that there is not just one treatment for everyone because of Age, PSA, Grade and Stage of the cancer. Dr. Bachand together with Dr. Juanita Crook have begun a study on **High Dose Rate (HDR) Brachytherapy** at the Cancer Centre in Kelowna. We are the first Cancer Centre in B.C. to be involved with HDR Brachytherapy. Dr. Bachand studied and practiced both **Low Dose Rate (LDR) Brachytherapy** and **HDR Brachytherapy** during his residency in Radiation Oncology in Quebec City. HDR Brachytherapy is mainly used for intermediate risk and high risk Prostate Cancers and is used in conjunction with **External Beam Radiation Therapy (EBRT).** Approximately 25 patients will be involved in the study taking place in Kelowna. As of Sept 10th approximately 15 patients are enrolled in the study and 8 men have been treated. The patients locally will receive four weeks of EBRT

followed by two courses of HDR Brachytherapy delivered one week apart.

HDR Brachytherapy involves the insertion of about 14 or 15 specialized tubes or catheters through the perineum and into the prostate gland using ultra sound guidance. (LDR Brachytherapy involves the use of approximately 24 needles). One seed containing **Iridium 192** is used for the radiation dose and travels through these tubes. The amount of radiation dose can be programmed to give different lengths of duration at different positions in the tubes. The procedure takes between two to three hours so the patients have to be able to endure three hours of anesthetic. Once the radiation dose has been delivered to the patient the probes are removed and the patient is sent to recovery. The seeds do not remain in the patient therefore there is no residual radiation in the patient. In the future the two separate treatments may be able to be delivered in one HDR Brachytherapy treatment using a higher dose of radiation.

The study that is underway in Kelowna is not meant to study the effectiveness of HDR Brachytherapy but to study the planning method for the treatment.

Latest News Release on Abiraterone Acetate (Now Known as ZYTIGA™) from Janssen

The following is an excerpt of a news release of July 28th.

TORONTO, ON. – July 28, 2011 – Janssen Inc. announced today that after a priority review, Health Canada has approved ZYTIGA™ (abiraterone acetate), an oral medication for the treatment of men with metastatic prostate cancer. ZYTIGA™ is indicated with prednisone for the treatment of men with metastatic prostate cancer (castration-resistant prostate cancer) who have received prior chemotherapy containing docetaxel.

"This approval is an important advancement in the treatment of metastatic prostate cancer," said *Dr. Scott North,* Medical Oncologist, Cross Cancer Institute, University of Alberta. "For these patients, the efficacy and safety of ZYTIGA™ will fill an important unmet medical need for additional treatment options. Most importantly, clinical trial results demonstrate extended overall survival and improved pain relief. I believe these benefits provide improved quality of life for many patients."

ZYTIGA™: Unique Mechanism of Action

Androgens are hormones that promote the development and maintenance of male sex characteristics; however, in prostate cancer, androgens can help fuel tumour growth. Androgen production primarily occurs in the testes and adrenal glands; in men with prostate cancer, the tumor itself is an additional source of androgen, ZYTIGA™ is an androgen biosynthesis inhibitor that inhibits the CYP17 enzyme complex, which is required for the production of androgens. It is the first oral treatment for metastatic prostate cancer that inhibits androgen production at all three sources.

Results of the pivotal Phase 3 study showed that at the pre-specified interim analysis, treatment with ZYTIGA™ plus prednisone resulted in a 35 per cent reduction in the risk of death

(14.8 months vs. 10.9 months and a 3.9 month difference in medial survival compared to placebo plus prednisone. In an updated analysis, results were consistent with those from interim analysis with a 4.6 month difference between the two arms in median survival [15.8 months vs. 11.2months]). The study was conducted in 147 centres in 13 countries including 12 centres in Canada; 154 Canadian men participated in the study, which represents approximately 13 per cent of the study population.

About Metastatic Prostate Cancer –

Metastatic prostate cancer occurs when cancer has spread beyond the prostate and disease progresses despite serum testosterone below castrate levels.

Prostate cancer is the most common cancer to afflict men in Canada, excluding non-melanoma skin cancer. Approximately 25,500 men are expected to be diagnosed with prostate cancer in Canada in 2011, and one in seven Canadian men will develop prostate cancer during his lifetime. The incidence rate of prostate cancer has been increasing since 1980, likely due to an increased rate of early detection and the aging population since the chances of developing prostate cancer increases with age. However, according to Prostate Cancer Canada, prostate cancer is turning up in men in their 40s.

Ninety per cent of prostate cancer cases are curable if detected and treated early. However, an estimated 4,100 Canadian men will still die of the disease in 2011. On average 80 Canadian men will die of prostate cancer every week. Fortunately death rates have been declining since the mid-1990s, likely due to early detection, better treatment or both.

Pivotal Study –

ZYTIGA™ with prednisone was evaluated in a Phase 3, randomized placebo-controlled, multi-centre clinical study in patients who had received prior chemotherapy containing docetaxel. Patients were randomized 2:1 to receive ZYTIGA™ 1 gram daily plus prednisone 10 milligrams (mg) daily or placebo in combination with prednisone 10 mg daily (control arm).

The most common adverse reactions observed with ZYTIGA™ were myopathy [a disease of the muscle] joint pain or discomfort, peripheral edema, hot flush, diarrhea, hypokalemia (low serum potassium), urinary tract infection and cough. Serious adverse reactions with ZYTIGA™ included urinary tract infections, bone fracture and hypokalemia.

WITT'S WIT (ON THE LIGHTER SIDE) –

MY DAD

I took my Dad to the mall the other day to buy some new shoes (he is 66)

We decided to grab a bite to eat at the food court.

I noticed he was watching a teenager sitting next to him.

The teenager had spiked hair in all different colours – green, red orange, and blue.

My Dad kept staring at her.

The teenager kept looking and would find my dad staring every time.

When the teenager had enough, she sarcastically asked: "What's the matter old man, never done anything wild in your life?"

Knowing my Dad, I quickly swallowed my food so that I would not choke on his response; as I knew he would have a good one!

In classic style he responded without batting an eyelid ….

"Got stoned once and had sex with a parrot. I was just wondering if you might be my kid."

Hope on the Horizon –

Pace of Prostate Cancer Research 'Simply Dazzling' with four soon-to-be approved agents adding to treatment options

The following is a reprint of a *Vancouver Sun* article of August 29th 2011, by ***Karen Gram***

We don't know what cancer killed Jack Layton, but we do know he had prostate cancer and that it is common for men with prostate cancer to develop secondary cancers -- often more aggressive cancers which could be the ones that defeat them. For men, this is sobering news since prostate cancer is the most common form of the disease among men.

About 25,000 new cases of the disease surface in Canada each year. In BC, physicians diagnose approximately 3,000 new cases each year.

While most men survive the slow progressing disease, about 500 BC men die from it every year.

Others are aggressively treated for a cancer that will never bother them, raising questions about the value of regular PSA tests.

The good news is that research has been going on at a furious pace in world labs and in Vancouver's own internationally renowned Prostate Centre and this research is starting to make its way into the clinic setting.

Dr. Kim Chi, an oncologist specializing in prostate cancer, says after years in the wilderness, four new agents targeting prostate cancer are in the final stages of approval.

"All of a sudden we have four new ways of attacking the cancer," says Chi, adding that before that, there was only one chemotherapy drug for late stage prostate cancer. Before that came on the scene 10 years ago, hormone therapy and

castration surgery were the only treatments available.

"It's really exciting times and it's a testament to how much research has evolved," says Chi. "All these things you have been hearing about from scientific and lab studies are all coming to fruition in the clinic."

Dr. Martin Gleave, executive director of the Vancouver Prostate Centre, calls the current rate of discovery and development of new treatments "simply dazzling." He compares it to the '70s and early '80s when computer technology took off.

"Significant progress is being made now and we will look back in 20 years time and recognize this time as a magical coming of age period," he said.

The conundrum researchers are starting to wrestle to the ground is how to block the ability of cancer cells to evolve and survive the death blows medicine inflicts on them, says Gleave.

"Testosterone in the main driver of progression of prostate cancer," he explains, adding that treatment has always been to suppress the production of the male hormone. But when they do that, the cancer cells start producing testosterone themselves. "It shows you what little buggers they are," he says.

So research focuses on developing a cocktail of death blows that will keep medicine ahead of the cancer's survival tricks.

Comparing the research approach to a game of baseball, Gleave says researchers are advancing the runners with a series of base hits.

"It is unlikely we will hit home runs," he says. "We may, but right now we are moving the field along with a series of base hits and that is still the most predictable way to win the game."

Recently up to bat was a new drug just approved in Canada a few weeks ago called Abiraterone, which showed excellent results. Abiraterone is a pill that blocks the cancer cell's ability to produce testosterone and it has very few side effects.

"We were testing it for several years on people with no other treatment options," said Chi, adding the average survival for the subjects was less than one year.

"Guys in wheelchairs were getting up and walking after one to two weeks of treatment," he said adding that it improved survival by about 35 per cent. People also had less pain and less progression of cancer," says Chi.

The drug was tested on men at the end stages of the disease, but Chi expects it may eventually become first line treatment, even before surgery and radiation.

Another new player is a drug called Denosumab, which is now on the market. It prevents the cancer cells from harming the bones. When prostate cancer metastasizes, it usually goes to the bone.

Denosumab is an anti-body that shuts down the cancer-activated cells that can destroy the bone. Patients can easily self-administer it and while it doesn't prolong life, it does a lot to improve quality of life, says Chi.

Then there is a new chemotherapy drug for patients who have become resistant to current chemotherapy regimes, and a new vaccine-type treatment that has been approved in the U.S., but not in Canada. The vaccine prolongs survival for about four months, but it doesn't relieve symptoms and it's expensive. It is questionable if patients will want to prolong their suffering while depleting their bank accounts, said Chi.

These four agents have all shown promise to varying degrees, but five more treatments are on the horizon, says Gleave.

One that is highly anticipated is a drug called OGX 011, which was developed by a team led by Gleave. In phase two trials it was found to restore the efficacy of chemotherapy in patients who had become resistant to the drugs and prolonged the lives of end-stage patients for an average of seven months. It is now in randomized phase three trials. Gleave says the data are very promising and will be out within two years.

The Prostate Centre researchers are also trying to figure out how to tell the difference between a prostate cancer that will kill and one that stays quiet in the body, not bothering it, says Chi.

By isolating and analyzing what they call circulating tumour cells, which are found in the blood stream and can be removed with a simple blood sample, researchers hope to figure out what drives a particular cancer. Once they know that, they can develop treatments that specifically target those drivers. It may also help them determine which cancers are less harmful than the treatment.

"This is in baby steps right now, but it is part of the future," he says.

Layton's demise was unfortunate and even tragic, but as he said himself, it's not a reason for those with the disease to lose hope. Instead, men can take comfort knowing that an explosion of discoveries in the field is greatly enhancing chances of survival.

"Fifteen years ago if you had end stage hormone resistant prostate cancer your overall survival rate was 12-14 months," says Gleave. "Now with the addition of these new medications, survival is exceeding 25 months and will continue to grow over the next five years."

Yvonne & I Would like to take this opportunity to wish everyone a very -

Happy Thanksgiving