

Prostate Cancer Canada Network - NEWMARKET

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**A support group that provides understanding,
hope and information to prostate cancer patients and their families**

Welcome back everyone to our September 19th prostate cancer support meeting. For those of you who remember the unfortunate closing down of the Senior Centre the day of our February 21st meeting, we were expecting a great night. Our guest speaker was to be Prof. Ian Tannock, MD. Professor of Medical Oncology and Medical Biophysics at Princess Margaret Hospital. Well, we were very fortunate, we were able to rebook Dr. Tannock at his first available date. He will be speaking to us at our September 19th meeting., Dr. Tannock completed training as a medical oncologist at Princess Margaret Hospital (PMH) and the University of Toronto in 1978, and apart from a sabbatical year in France has remained there as a clinician/scientist. He was previously Chief of Medicine at PMH and has been Professor of Medicine and Medical Biophysics at the University of Toronto since 1989. Prof. Tannock pioneered the use of pain and quality of life endpoints in clinical trials, especially for breast and prostate cancer. He is a recipient of the Warwick Prize from the National Cancer Institute of Canada, which recognizes a Canadian scientist or clinician for their impact on cancer control. Come and learn about an area of prostate cancer research which we haven't previously had the privilege of hearing.

Meeting Date: September 19th, 2013

**Place: Newmarket Seniors Meeting Place,
474 Davis Drive, Newmarket (Side Entrance)**

Time: 6:30 pm to 9:00 pm

**Speaker Dr. Ian F. Tannock, Professor of Medical Oncology,
Princess Margaret Hospital and the University of Toronto,**

Subject: Open Forum on Prostate Cancer Treatment

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a member of the



Assisted by the Canadian Cancer Society
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The Newmarket Prostate Cancer Support Group does not recommend products, treatment modalities, medications, or physicians. All information is, however, freely shared.

June Speaker Notes . . . Dr. Sandy Sehdev, Oncologist, William Osler Health Centre Subject "Bone Targeted Therapies"

Dr. Sehdev. is a medical Oncologist and a Bone specialist at the William Osler Health Centre. His talk at last June's meeting was on dealing with metastasis prostate cancer that has spread to the bones. When left untreated, cancer that has spread to the bone can lead to serious and debilitating complications that can cause pain, disability and even death. Here is what he had to say



I've spent a lot of time with prostate cancer and lymphoma patients over the years and also with the prostate cancer network in the Brampton area. I always learned a lot from you guys, in terms of the concerns that you have and the questions you have. Sometimes in a less stressful environment I can perceive more from my patients, what their real concerns are, that don't come up in the clinics. It's hard to answer questions specifically about your individual journey, because sometimes there may be aspects of your care that only your doctor may know and we can easily be prone to give misinformation without knowing the whole details. In terms of generalities, I am happy to comment, if you have questions.

Part of my background is that, as a director of the Cancer Advocacy Coalition, I've developed an interest in trying to get the best treatments, tests and therapies funded and accessible to our patients in Canada. You may know that funding and approvals are sometimes laboriously long and vary tremendously from province to province. Sometimes we count on you guys to help make that happen. Often governments and funding bodies listen more to patient groups and to media and to publicity than they do to oncologists, because they have a sense that we're biased and just want to play with the latest toys quickly. But for patients, it's very important that they have access to things. I think, in Ontario right now, we're kind of middle of the pack in Canada for access to new treatments for cancer. As Canada goes, as a nation, right now of 14 western countries, we're number 13, second from the bottom. New Zealand is worse than us and Britain is one step ahead of us. So there are some challenges for us and right now, I'll be talking today about, not just bone involvement with prostate cancer but hopefully alluding to a lot of hope we have for tremendous new advances. This is a breathtaking time in prostate cancer.

At the William Osler Health Centre I usually have patients with advanced disease, so I don't usually comment about people who have local prostate cancer, and are dealing with waiting and watching or surgery or radiation. Our cases they have more advanced disease, where it's spread. We help them live with their cancer, often for many, many years. We help control their symptoms in terms of complications of their cancer. With that background, I hope you will know where I'm coming from. I won't really be talking about bone cancer, I'll be talking about prostate cancer in the bone. Bone cancer is what Terry Fox had. It's a very rare kind of cancer that's common in youngsters usually. It's called Sarcoma. Any cancer can go to the bones, breast, prostate, lung. It's a common place for seedlings to go because it's very fertile and they can progress there. In prostate cancer it is often the main place of cancer spread. It can cause a lot of difficulties. I hope to talk a bit about how we treat that.

Just so I know a little bit about your group, How many of you in the audience are aware that your cancer is in your bones now? Have any of you had it spread elsewhere in your body? That's good not many have had it spread to that degree. A lot of the stuff I'll be talking about you should find scientifically interesting but it may not be relevant and I don't want to frighten people who don't have it in the bone, because your earlier phases of prostate are quite different and they often have a much better long term prognosis. A lot of this might not be applicable to you but, hopefully, you'll find it interesting. I want to talk about bone metastasis, the complications, what the treatments are, what the options are for those, what impact it would have on bone health, what we can do to keep our bones strong to prevent complications there. Remember Jack Layton? I understand that he had prostate cancer in his bones and he had that before he ran for prime minister. He died of another kind of cancer. He is an example of how someone who had prostate cancer in the bone can live very well and function in very high jobs. Some of you have indicated that you have bone metastasis and yet to look at you, you look great and no one would know that you have cancer.

Our bones are living tissue. Basically they are our structure that everything hangs on, the muscles that operate our bodies, move things around. Our bones protect our internal organs like our heart and lungs from damage. They are a really vital part of our body and when cancer affects them, it can make them fragile and it can make them sore. Remember prostate cancer is probably the most common place that the cancer will spread to if it's going to spread. Of all people who

have advanced stages, about 3/4 of them have it in the bone. They may have it somewhere else as well. They may have it in the lymph nodes in the pelvis, they may have it in their lungs and, very rarely, in the liver or other places. When I was younger, we almost only ever saw it go to the bones but people now are living with the cancer so much longer than they used to live before, the cancer sometimes has a chance to later travel and show up in places where it never used to. Because, in the old days, people used to pass away before it had a chance to go there. So sometimes we see it in the liver, we even occasionally see it in the brain and we can treat those effectively as well.

Dr. Sehdev showed a slide illustrating the composition of the bones as they look through a microscope, showing bone channels and the marrow between them. The marrow is the blood factory. In osteoporosis, the bones get brittle and thinned out from the lack of estrogen in women and testosterone in men. When you have bone tumours, the bones develop a lot of thickening and scarring. The bone tumours release inflammation chemicals that cause the bones to get scarred up. In the bone scans you often don't see holes like you see in other cancers. You see thick patches of thickening, we call that sclerosis and that's the give-away for bone involvement. When a tumour cell comes through your blood and lands on a bone, in the bone there are always two kinds of cells active. There are cells that make bone and there are cells that eat bone and they're always in balance. So, in women who are pregnant, for instance, the cells that eat bone, transport the calcium to the baby. If someone decides to take up an exercise program, such as running, the body will actually borrow bone from unused places to help build up the areas where the person needs the bones to be stronger. The tumour cells actually release chemicals, which stimulate the bones' building and eating cells and cause an imbalance which causes the bone to get more damaged. Those cells, when they're turned on, in turn release chemicals which unfortunately go back and feed the tumour to grow faster. We call that the vicious cycle. That's what will lead to more and more bone damage occurring year after year. He then showed us a video explaining how bone structure is affected by cancer cells.

It told us: "When a cancerous tumour grows, new blood vessels form. The blood supplies the tumour with oxygen and nutrients. Cancer cells can also travel through these blood vessels to other tissue, where they can settle and grow. This process, called metastasis, can also occur in bone. Normal bone is continuously active. When the cancer cells spread to the bone, they stimulate bone cells called osteoclasts. Osteoclasts increase bone destruction, making room for the tumour to grow in the bone. As bone is destroyed, proteins are released that can cause cancer cells to grow and the cycle of bone destruction continues. This makes the bones weak and fragile. These changes can lead to serious complications like bone pain, fractures and pressure on the spinal cord that can damage nerves, which can have significant impact on patients' lives. The spine, ribs, skull and upper arms and legs are the

most common areas for cancer to spread to the bone. Treatment for bone metastasis can involve chemotherapy, hormone therapy, radiation or surgery. Medications are also available that may help."

What are the warning signs? How does someone know there could be cancer in the bone. The usual sign is bone pain. The bones aren't the same as joints. We all tend to get joint pains but the bone pain tends to be in larger bones, the ribs, breast bone, spine, pelvis. We all get pain, so if there's a pain that's new and there's no reason for it; you didn't fall or hurt yourself and the pain is persistent, more than three or four weeks; and you've had cancer before; that is always important to let your family doctor know. They will know when to give a bone scan and blood tests to check it out. They're often fairly easy to diagnose. These things light up on X-rays and bone scans fairly easily. If someone has had prostate cancer five or ten years ago, it can still come back in the bone. It's not really a new cancer, it basically is the old cancer that must have travelled to the bone before their operation and it's invisible, no scan in the world could show it. Years later, they've very slowly grown and progressed, then they can become manifest. So even when people have it back in their bone, it must have been there from day one, before the treatment but laid low and made itself known later. When the cancer is in the bone or any part of the body, it's not a curable kind of thing but it's very treatable. It's almost like a disease. If there's one or two in the bone, there are literally hundreds of invisible ones that can't be seen. So we view it as a condition and treat the patients with medications. The medications will work everywhere. We treat the symptoms and take care of them as we need to. We think of it much as diabetes or chronic diseases that can be treated nowadays for a long time. There are other warning signs, sometimes a fracture or Hypercalcemia, it's not that common with prostate cancer but when there are things eating away at the bone, they can release calcium in the blood. That can make people very sick, tired, aching; constipation or diarrhea; confusion; dehydration; nausea or vomiting, memory loss and depression. These happen only in very severe cases. How do we diagnose it? X-rays might show a patchy area in the bone that shouldn't be there. Blood tests and, of course, the PSA and also, if we're not sure, we can do a biopsy of the bone.

There are some people who have had prostate cancer before and they had a spot on their spine. It might turn out to be TB contracted when they were younger. So it's not always prostate cancer. As we get older we are just as vulnerable to get other cancers, so if the PSA is not showing, or we're not sure, we don't assume. We always have to do tests and biopsies. These are the problems we want to avoid. We don't want patients to have pain. Most patients who have prostate cancer of the bone have pain. It's controllable with pain medicines but we'd rather not have that. Sometimes it can fracture, the pain can be bad enough that the patient will need to have radiation, like a spot weld to help that tumour get better so the pain goes away. If there's tumour in the spine, it can push

back and pressure the spinal cord and could possibly lead to paralysis. Sometimes it can be bad enough that this bone is eaten right through and the bone surgeon has to put in a rod to help fix that bone. These are the kind of things we're trying to avoid when people have cancer in the bone. It's not just about treating the bone. Treating the cancer also helps the bone. If we have therapies that can treat the cancer, the bone can get better.

Because the cancer is what caused the bone problems. I won't get into hormone treatments for now but many of you know that by lowering the male hormone, testosterone, prostate cancer often gets better for years. Prostate cancer is fed by male hormones. But now we've found out that it's not just fed by male hormones from the testicles, which we can take away with surgery or drugs. There is some testosterone which is produced in the prostate cancer cells themselves. Sometimes, if the cancer is getting worse, we can use a new pill, such as Abiraterone. It just got funded in Ontario within the year. It's a very easy pill that's about \$200 a day and is now paid by the government in certain cases and it can really help to control the disease for a long time. For patients who have already had chemo for extremely advanced prostate cancer, the government is now covering the costs because studies have shown that it eases suffering and prolongs life.

If you look at the bone issues. You take all those bone things: fractures, surgery, pain, spinal cord damage, we call those things skeletal events. If you look at the people who've had this treatment over time fewer of them have a skeletal event. The people who didn't have the treatment, more of them had skeletal events. In terms of pain, the people who had Abiraterone, about half of them had significant pain relief. The side effects were very few. The other drug that's new used to be called MDV and now it's called Ensolutimide. This is back up treatment, it's not the first treatment but if people have widespread cancer, they usually get chemotherapy, with Abiraterone as a back up, this is another back up. This works another way, it blocks the testosterone from getting into the cancer cell and it also blocks it from going from outside the cell towards the DNA of the cell, where it does its action. By blocking the male hormone in a different way, it can also be very effective. One message I hope to leave you, without getting into all the treatments, is even if your cancer is widespread, it's not that it can't be treated, it's not game over, it's not that you're going to die. It's very treatable and just like people who have diabetes, angina, they're chronic diseases but they are treatable. They don't have to think about a death sentence. If someone's losing tremendous weight and they're chair bound and very, very weak, that tells us that they are probably at that stage of life.

So we talked a lot about how prostate cancer can damage the bones. ADT is an abbreviation for androgen deprivation, you know the male hormones that feed prostate cancer, one of the most important treatments is medicines that turn off the testosterone. That therapy basically puts men into a menopausal-like condition. Women, when their estrogen stops

they go into menopause. This can cause hot flashes and it also can cause bone thinning. This is the same for men when their testosterone is taken away. Over time there is a higher rate of fractures. If you are on these therapies, you should be checking your bone density every year. This is not the bone scan that you have for cancer, this is measuring the thickness of the bone. What treatments do we have? Well we have drugs. One class are called Bisphosphonates and the other ones are Rank-Ligand Inhibitors. For those of you who may be on these therapies, the most common one in this category is called Zometa. The Rank-Ligand Inhibitor is called Xgeva, it's the new kid on the block. Zometa is given by IV, it takes about 15 minutes and we do it every three weeks. Xgeva is given as a tiny prick in the skin, so it's faster, it doesn't require a chair in the chemo clinic, we do it every four weeks. We still do it in the cancer clinic. We have to monitor the blood tests very carefully on these treatments. As far as side effects go, sometimes the IV drugs, Zometa, can cause flu like symptoms, fever, muscle, usually only on the first or second dose, not usually forever. Sometimes Xgeva works so well that it lowers the calcium too much, so people have to take Vitamin D and Calcium every day or Xgeva will not be safe.

Other things you can do to help your bone strength: exercise, with the advise of your doctor; Stop smoking it decreases bone strength; we recommend taking calcium and vitamin D; avoid injury; limit caffeine. In summary, the bones are the most common place for prostate cancer to go. When it goes there, it's not game over, there is treatment. It's not going to make the cancer go away but it's going to help prevent the problems that the cancer might cause and help to maintain quality of life.

Here are some links that Dr. Sehdev suggested: you might find informative

Bonehealthincancer.ca
survivornet.ca
prostatecancer.ca
cbcn.ca
rethinkbreastcancer.com
canceradvocacy.ca
mascc.org

Did you notice Volume 18 issue 1 on the first page of this newsletter? That signifies the start of the 18th year of monthly meetings by your support group. It also starts the 18th year of continuous newsletters. Just thought you might be interested in this little bit of history.