

PROSTATE CANCER CANADA - NEWMARKET

Volume 15, Issue 3,

November 15th, 2010

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



Jack Barkin M.D. is our speaker for the November 18 meeting. He is Chief of Staff at Humber River Regional Hospital and Assistant Professor of Urology at the University of Toronto. He is also an Adjunct Clinical Professor, Department of Surgery at the University of Toronto. In addition, Dr. Barkin is Director of the Male Health Center in Toronto, a semi-private specialty clinic that focuses on the diagnosis and management of male sexual health problems and diseases of the prostate.

Dr. Barkin has also been involved in clinical research for 20 years and has been the principal investigator in many Canadian and international clinical drug trials. His clinical and research interests include erectile dysfunction, prostate diseases, male menopause, bladder cancer, interstitial cystitis and infertility.

Meeting Date: November 18th, 2010

**Place: Newmarket Seniors Meeting Place,
474 Davis Drive, Newmarket**

Time: 7:00 pm to 9:00 pm

Speaker: Dr. Jack Barkin

Subject: Indepth look at High Intensive Focused Ultrasound

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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.

October Notes . . . Dr. Rohan Shahani

Subject: "A Shifting Landscape"

Rohan Shahani titled his talk "A Shifting Landscape." Referring to the changes that are occurring and are continuing to occur in cancer treatment. He talked about laparoscopic prostate cancer surgery and why it is in favour now and why it may already be yesterday's news. He said he would also talk about more of the minimally invasive treatments, such as HIFU (High Intensive Focused Ultrasound), MR-GUS, (MRI Guided Ultrasound) and Focal Therapy, where some of the current changes are. Here is what he had to say.



In terms of prostate cancer demographics, while it's the most prevalent cancer in men, one in six men get prostate cancer but only one in 16 of those die of it. The majority of men diagnosed with prostate cancer, don't actually need to be treated in a way that has significant morbidity associated with it. That's the traditional approaches with radical prostatectomy or external beam radiotherapy or even brachytherapy. We're in a phase right now where we're trying to find ways to intervene with these patients in a less aggressive fashion.

Really, what have the options for treatment been? It's been surgical, particularly radical prostatectomy, that's generally to locally confined disease where we take out the prostate and possibly the lymph nodes with open or laparoscopic surgery. Some of the potential side effects are: erectile dysfunction, depending on preoperative erectile function, age, overall health (i.e. diabetes, hypertension poor function) although we are moving more towards nerve-sparing approaches; there are issues of incontinence afterwards, there is a 1-2% chance of severe leakage after surgery, which may require another surgery to fix. There is also a 10-15% chance of drops with coughing, sneezing and activities, where a man may require a pad or diaper of varying degrees. In terms of the traditional open radical prostatectomy, basically we remove the prostate and lymph nodes and then we put the bladder and the urethra back together again. That's essentially the basis of a radical prostatectomy and regardless if we're using open surgery, laparoscopic or robotically, we're using the same approach.

So why is the open surgery falling out of favour? Why are we moving away from such an invasive operation? Well, there's significant blood loss with open surgery, which is usually over a litre. The recovery time can be significant. If any of you have had radical prostatectomies, you may know the degree of recovery that's taken to get out of the hospital and recover from a pretty large and a somewhat painful incision. Some people have commented that it takes up to three months to get back to your regular activities; there's pain, there's length of hospital stay; most people have a catheter inserted for 10 to 21 days. In terms of laparoscopic approach, it's considered a more minimally invasive approach, where we're not having a large incision. The principles are the same as we remove the prostate, along with the lymph nodes, and put ev-

erything back together again, through four to six ports or incisions which are from 1/2 centimeter to a centimeter in size. We are able to remove the prostate through a much smaller incision, right around the belly button so it's both cosmetically appealing and a lot less painful. It's a much more technically challenging operation, in fact there are less than ten urologists who are offering this treatment around the province. It also takes longer, it takes 2 1/2 to five hours depending on how difficult the operation is. So a lot of people say, "Why do we want to do this?" "Why do we want to make it harder on ourselves?" It's the long term outcomes to the patient that we have to take more and more into consideration. There isn't any study to show that laparoscopy is better than radical except for less blood loss. As most urologists will say, more blood loss leads to a longer recovery time. We also know that they have less pain and a significantly faster return to regular activity. The hospital stay is shorter, two days compared to 3.3 days. It doesn't seem like much but we must also factor in the costs to the hospital, it actually ends up saving the system money.

Because we do an operation where we put the bladder and the urethra back together again, much more of a direct vision is available through the cameras and we can see things much better than with open surgery. The connection is more water tight, which means we can leave the catheters in for a shorter length of time, which means patients get on with their healing process better. When a patient has a catheter for two weeks, they feel like a patient. When you take the catheter out they can start to get back to a normal life. I think there is something to be said about the psychological benefits of just getting the catheter out. When we look at the cancer outcomes, we don't have any evidence to suggest that it's better but we don't have any telling us that it's worse.

What are the disadvantages of having an operation like laparoscopic or robotic? Well, as we mentioned, there are only a handful of urologists who are doing this and there is a waitlist of six to eight months. The long term results are not there because this is a new technology. It's going to take years before we compare long term outcomes. The main issue is the cost - is it cost saving or is it a disadvantage? The operating room is much more expensive because of the equipment. However, with the shorter hospital stay, earlier return to functional outcomes, the overall cost to the system is insignificant. As a surgeon who does laparoscopic surgery, I think it has to be tailored to the right patient. Not everyone is a good candidate for it. We can't do it in patients who have had previ-

ous operations or have a large prostate. If a patient needs very aggressive treatment, who might need radiation or hormone treatment in addition to it, I would prefer to give them an open operation. There are different approaches we can use for this, either through the abdomen or right into the pelvis like we would for a standard radical prostatectomy.

What are the long term considerations in terms of laparoscopic or minimally invasive operation? Patients feel better, they go home earlier, they get back to their lives, many of the men who have this note that their erections come back sooner, there may be an earlier return of continence and, with less pain and less blood loss, they just feel better.

So what about Robotic Assisted Laparoscopic Surgery? We now have three robotic set-ups in the Toronto area and six around the province and maybe a dozen around the country. So robotic prostatectomy hasn't caught on that much. There are several reasons for that. There has been much and continued ongoing debate about the role of robotic prostatectomy. In the United States, in 2009, 85% of radical prostatectomies were done robotically. Very few were being done openly. The reason for that is, it's a marketing tool. There's actually been no evidence to support that robotic is any more effective than laparoscopic or open surgery. The reason why it's taken off is because it's become a marketing tool where, if you don't have a robot in your hospital, patients will look elsewhere because it's a privatized health care system and patients drive their own decisions and choose their physicians based on what they can offer. The question becomes, is this a gizmo or does it really improve care? Is it just technology? What is it doing that is different? Well it's still laparoscopic surgery, we're just using a robot to do the same operation. People think, well you're using a robot, you can just go outside and leave the robot to do the operation for you. In fact, the surgeon is sitting in a console and just in a more ergonomic fashion does the exact same operation. The first and foremost most important thing to know is that this is by far a much more expensive operation. To have a robot in there costs five million dollars. That's the cost to buy the robot and have a service contract for five years, along with the training that's associated with it. So you have to buy a robot which will do the operation which we were already doing before. It's a significantly higher cost to the system, which our health care system couldn't or shouldn't support.

In terms of the outcomes, yes, they have less blood loss but it's been known that it's no different from doing pure laparoscopic but it's still less than an open operation. There's less time with a catheter, like laparoscopic, but less than the open. But, unlike a laparoscopic or an open operation, we don't have tactile feedback with the robot. As I mentioned before, with high risk prostate cancer, I prefer to do open surgery because I get better feel with my hands, and you're getting less of that with the robot. We really have to look at whether we can do better for the patient by offering robotic surgery. The evidence goes to support that in terms of the oncologic outcomes. They are no better but they are also in-

ferior if the surgeon doing the operation hasn't overcome the learning curve. What's the learning curve? It's probably two to three hundred prostatectomies, which is a significant number. Most community hospitals like Southlake will have about 100 prostatectomies done by all surgeons together in a year. So you're talking about an individual surgeon going through that learning curve in about five years. So, do you want to be the first person having that operation or do you want to be the 50th person? You might want to wait five years before you get that operation done. In reality, we have some U.S. health care data that shows that the functional outcomes might be impaired by robotic prostatectomy. There's three times higher stricture rate, or scarring at the bladder neck, and the need for salvage surgery is higher. This is probably related to that learning curve. Surgeons haven't had the number of operations to be really proficient. This is a frightful number where patients are three times more likely to need another operation, mostly because they are not getting all the cancer out. So, if you're going to have this done, you need to have it done by a surgeon who knows what they are doing. If you don't, you're running the risk of having a significantly bad outcome. Even with experienced surgeons, there's a higher risk of incontinence and erectile dysfunction. In terms of patient satisfaction patients undergoing OPEN Radical Prostatectomy are four times more likely to be satisfied than robotic RP patients. Patients undergoing ROBOTIC RP are 3 times more likely to have regrets possibly due to expectations being higher.

I'd like to talk more about minimally invasive treatments such as HIFU and Focal Therapy because that's the trend that I see and I think most of us in prostate cancer are realizing that in ten or fifteen years, we probably won't be taking the prostate out at all. We'll be looking at newer ways to do things with a less invasive approach. Many of you may have heard of HIFU, or High Intensity Focused Ultrasound. A lot of patients ask me, "What's this HIFU thing? They just burn the prostate and that's it. No problem, I don't need an operation, no cuts. I go home the same day. I don't have any tubes. What's the problem?" Well HIFU means that they are using a really hot ultrasound to burn the prostate. Most people don't like hot burning things inside them when they're awake and that's ultimately what they are doing. There are two different devices out there, both of which are available in Toronto. One's called Sonoblate, the other Ablatherm. They ultimately have similar goals, which is to burn the prostate but they do it with slightly different technology. In order to do HIFU, your prostate has to be a specific size and if you have a very large prostate, you may have to have it scraped before HIFU treatment, to get it to the right size. So it doesn't necessarily mean that you only have one procedure that's going to be catheter free without any cuts or bleeding. You may need an operation before you can even have something like this. There are patient comfort issues in that they go home with a catheter in their abdomen for two weeks. There is pain that can be associated with the recovery period from the operation. It's not infrequent that you need multiple treatments of the HIFU

because they haven't been able to kill all the prostate cancer. There are so many questions that are unclear at this stage with HIFU. I think that at this point in time that HIFU is very preliminary in where it stands in the role of prostate cancer management. There are no randomized trials to show that HIFU is safe or anywhere near as advantageous as the radical prostatectomy for the men who have primary prostate cancer. Most of the studies are short term, six months or a year. They follow the patient with PSA or biopsies. What happens if the PSA doesn't come down? Should you have another treatment? There are a lot of questions that can't be answered. Let's say you have a biopsy in six months and it shows that there's cancer, what do we do about that? In looking at some of the larger case series, where they felt that HIFU is safe as part of the treatment for patients who are older and are not candidates for primary surgical therapy, in low risk T1 or T2 stage disease, low Gleason score and a PSA less than 15 and a small prostate volume. A lot of men don't fit into this criteria, so you're limiting the number of people who are really candidates. What you're saying is that you might be considering these patients for active surveillance. If I were a patient and had this criteria and somebody came along and told me that they can watch my prostate cancer and I'm probably not going to die from it, why would I want anything done?

I always caution my patients, when I talk about HIFU, that you've got to be careful when you're going with something that everybody's glorifying as a minimally invasive approach, when in fact, it may not be the right approach for you. Or, you may not need any treatment at all. Recognizing that in Toronto we have two sites for HIFU, the average cost for primary therapy is \$22,000. It's not an insignificant cost, it's not covered by OHIP at all and it doesn't go without its complications. It may have lower rates of ED and incontinence than extirpative or radiotherapy, however, it has other side effects not seen with traditional treatment: Tissue sloughing; Need for pre-operative or post-operative TURP; Rectourethral fistula. HIFU likely will serve best for patients who need salvage treatment following radiation therapy. In terms of HIFU for primary treatment, it's still not clear where it fits in this role.

What about MR-GUS, which is MRI Guided Ultrasound or focused ultrasound therapy? This is a research protocol at this point in time. This is essentially using a similar kind of approach to treatment as HIFU but using an MRI guided image to look at prostate cancer and target it using the MRI to focally ablate the prostate. This is a new and exciting kind of approach. It's very preliminary, just five or ten patients have been done in a study. This is well from main stream. I thought I'd mention it. We take HIFU as we know it and maybe make it much more selective and therefore make it a safer and more viable approach for primary treatment of prostate cancer.

Just what is Focal Therapy? HIFU is considered a focal therapy. Focal therapy means trying to treat just the prostate cancer itself, rather than treating the whole prostate. That's really the way prostate cancer management is going to go and I think in 10 or 15 years we're not going to be taking the prostate out. We'll be just killing the prostate cancer. It's been equated to the male lumpectomy. Breast cancer treatment was revolutionized with the lumpectomy. It changed how breast cancer is managed for the most part. We haven't caught on in surgery in trying to just treat the prostate cancer and leave the prostate behind and trying to avoid all the side effects. Part of the reason for that is that prostate cancer is a difficult thing to see and to do and to feel. It's not like a breast lump where you can feel the lump and take it out. It's not in a place where it's accessible to be felt as well but it's there are also not big nodules. Sometimes prostate cancer can be in multiple places in the prostate. Focal therapy is a paradigm shift, where we're treating the cancer, not the whole prostate. The limitations being that you have limited ability to feel and see the cancer. We haven't had good imaging, we've always used ultrasound for the last 15 or 20 years and even ultrasound has limited abilities to see prostate cancer. Now we're using MRI and newer modalities; ultrasound with bubble technology and a whole variety of ways to better find prostate cancer. It's allowing us to say, "There's your prostate cancer and we can go after it." Then there's the question of how do you go after something that's so buried inside of somebody that's hard to access. *It's an ever Shifting Landscape.*

Add these dates to your Calendar

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| November 18 | Dr. Jack Barkin | - An update on HIFU |
| December 16 | Christmas Party | |
| January 20, 2011 | Barbara Beauchamp | - from Osteoporosis Canada - topic to come |
| February 17, 2011 | Leah Jamnicky | - from Princess Margaret Hospital - topic to come |
| March 17, 2011 | Dr. Jerome Green | - not yet confirmed |
| April 21, 2011, | Dr. Pdraig Warde | - from Princess Margaret Hospital - topic to come |
| May 19, 2011 | Tanya Giaquinto | - from Sunnybrook Hospital - Diet and Cancer . . . |
| June 16, 2011 | Dr. Robert Bristow | - from Princess Margaret Hospital - topic to come |

Provenge – A Novel Prostate Cancer Vaccine

In this excerpt of an article in our *Health After 50* newsletter, Charles Drake, M.D., Ph.D., associate professor of oncology, immunology, and urology at Johns Hopkins and a world-renowned expert on cancer vaccines, discusses sipuleucel-T (Provenge) – a novel approach for prostate cancer.

With the recent U.S. Food and Drug Administration (FDA) approval of the prostate cancer vaccine Provenge, the war against prostate cancer has taken a promising turn. The vaccine is approved for men with advanced prostate cancer that is asymptomatic or minimally symptomatic, has spread beyond the prostate, and has failed to respond to hormone deprivation therapy. This therapy suppresses hormones that fuel the growth of prostate cancer cells.

Clinical trials show that men with this type of advanced prostate cancer who were given Provenge lived for approximately 25.8 months afterward. The men who didn't receive the vaccine lived for 21.7 months.

Provenge extended life by about four months. Were the researchers hoping for more? While four months may not be the home run that all of us would like to have seen, if you put these results into context, it really is a very significant achievement for several reasons.

- First, the men in this study had metastatic prostate cancer that did not respond to hormone deprivation therapy. For this type of cancer, treatment options are very limited. The chemotherapy drug docetaxel is the only other FDA-approved treatment for men in this advanced stage of the disease and clinical trials show that docetaxel extends life by approximately two months.
- Second, Provenge is the first FDA-approved vaccine to treat cancer. (The human papillomavirus [HPV] vaccines help prevent cervical cancer, but they don't treat it.) Its approval opens doors for other companies to come forward with cancer vaccines and for Provenge eventually to be made available to men with less advanced prostate cancer, for whom we think the vaccine will be even more effective.

How does this vaccine differ from vaccines for immunization? Vaccines for immunity prevent disease by introducing a small portion of a virus or bacterium to the immune system before you become infected. That way, if you are exposed, you will have already produced antibodies to fight the infection and chances are you won't become ill. Or, if you do become ill, you will be sick only for a short time.

Unlike vaccines for immunization that prevent disease, vaccines for prostate cancer are immunotherapies [targeting existing tumor cells]. They are therapies in the same sense that chemotherapy is a therapy. Because people with prostate cancer already have the disease (and have usually had it for five to 10 years) the trick is to activate the immune cells to fight it. The process is a lot more involved than immunization-type vaccines because the immune system has already seen the cancer and has grown complacent.

SINCE WAY BACK
Movember
MMX
EVERY MAN DESERVES
A LITTLE BIT OF LUXURY

Hi All:

This Movember, the month formerly known as November, a group of us have decided to raise awareness about Prostate Cancer. We have formed a team within our support group, Prostate Cancer Canada - Newmarket. Several of us will have a moustache growing competition and raise funds. Our donation and commitment is to relate men's health issues to as many men and their supporters as we can. Movember originated in Australia five years ago with this moustache growing theme and is now world-wide and is the largest and most successful fund raiser for prostate cancer.

We are doing this because 4,400 men die of Prostate Cancer in Canada each year and one in six men will be diagnosed during his lifetime. This is a cause that we all feel passionately about and we are asking you to support our efforts by making a donation to **Prostate Cancer Canada**.

To help you can either:

Go to this link: <http://ca/movember.com/mospace/737216> **and donate** online using your credit card. Donate any amount under the heading of "**Donate to me**" or **become part of the Team, grow your own mustache and raise funds under your name.**

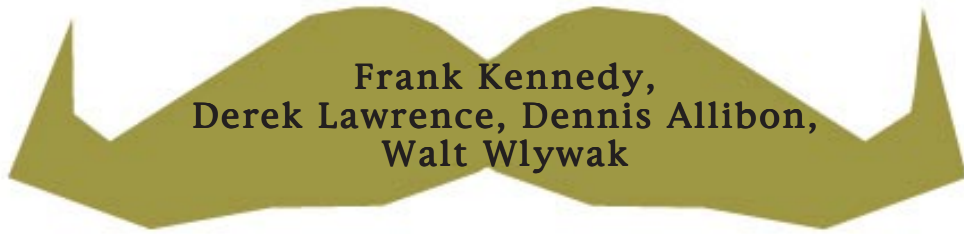
OR

Write a Cheque payable to Prostate Cancer Canada referencing My Name and/or Registration Number 737216 and mailing the cheque to Prostate Cancer Canada, Suite 306, 145 Front Street East, Toronto, ON M5A 1E3, Canada.

All donations are tax deductible to the extent permitted by law.

Thank you in advance for helping us support men's health.

Let's win the fight to eliminate this men's disease.



Frank Kennedy,
Derek Lawrence, Dennis Allibon,
Walt Wlywak