

Advances in the Treatment of Bladder Cancer

Webcast

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Colin P.N. Dinney, M.D.

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Introduction

Andrew Schorr:

Hello and thank you for joining us once again for another edition of Patient Power sponsored by M. D. Anderson Cancer Center. I'm Andrew Schorr. So we are going to talk about bladder cancer today.

You may well know someone who is diagnosed with it or you yourself. It is fifth on the list of the most common cancers in the United States, almost 60,000 new cases each year. Unfortunately 12,000 people, mostly men, will die from the disease, but if it can be found early it's very treatable. And as a matter of fact, the five-year cancer specific survival rate is approaching 95 percent.

Well, as you can imagine M. D. Anderson sees people come from around the country and around the world with bladder cancer. One such person came from, used to be a Texan, but for many years was living in Canada, and that's Tom Touzel. He is 70 years old now. Well, back in March of 2004 he was on a trip, and he was having blood in his urine, and it was not stopping. He was very far away, in Asia I believe, and he came back, knew he needed treatment, went back to Florida where he had been spending time and living then, and he had also been taking Coumadin having previously had a stroke, you know, a blood thinner, so he thought maybe that was it. Well, as some of you who have had blood in your urine have found out, maybe it could have been something like this, but what it turned out to be was bladder cancer. And he had some surgery for that, didn't really like the quality of care he was getting, wanted to look further, got on the internet, looked for the leading centers, and it brought him to M. D. Anderson.

And, Tom, thank you for joining us first of all from Canada. When you went to M. D. Anderson, you just went, right? You didn't have an appointment. You didn't have a doctor. You just knew you wanted to seek out your care options there. Is that right?

Tom's Story

Tom:

Well, I knew that I wanted M. D. Anderson, and in fact I knew I wanted Colin Dinney who is my physician at M. D. Anderson.

Andrew Schorr:

Right. Well, we've got to tell that story. So you tried to see if you could see Colin Dinney, who has become the chairman of the department of urology. You are going to meet him in a second. He is a world renowned expert in bladder cancer, chairman of the department of urology at M. D. Anderson, but certainly well known. You wanted him as a doctor. You heard he was sort of full up. You're in the cafeteria. You see that there is a stop smoking seminar starting in five minutes. You go to that. Who is helping run the show there?

Tom:

His wife, Jane Dinney.

Andrew Schorr:

And she said, maybe I can help.

Tom:

Exactly.

Andrew Schorr:

Okay. Well, the good news is Dr. Dinney became your doctor.

Tom:

Right.

Andrew Schorr:

And so you had treatment. How much of a difference do you think Dr. Dinney has made in your life as far as you being here with us today and being, you know, treated successfully for bladder cancer?

Tom:

Well, I know that today I am clean. I know that when I left Miami I was not clean. I don't know, I don't know why I was not clean. I don't know if something new popped up in between the time that I left Miami and came to Houston, or if they missed it. I don't know. But I know that today I am clean, and it's thanks to Colin and his team and that particular department.

Andrew Schorr:

We are going to learn more about the whole multidisciplinary team at M. D. Anderson in urology in helping men and some women with bladder cancer. You have gotten very involved in the support groups and also the research that's gone on in bladder cancer. Tom, how come? I know you maintain a condo I think down in Houston and go down there, and it's largely because you want to have that involvement. Why are you so motivated?

Tom:

Well, it's sort of giving back. I have always had a sense that you don't take without giving back, and Colin asked me a couple of years ago to work with this group which started out specifically as a SPORE program.

Andrew Schorr:

A research program, uh-huh.

Tom:

Well, no. It was is the support group for the SPORE program.

Andrew Schorr:

Right. Right.

Tom:

And I just--I didn't even have to think about it. I agreed to do it. And you know, it's exciting doing it. I know that we are making a difference and that we are educating and that we are getting our names out, the name of bladder cancer, but I think we are doing a good job. We are growing the group tremendously.

Andrew Schorr:

Well, I want to thank you. I want to thank you for all you do, Tom. So just to be clear on the treatment you had, so you had some surgery in Florida.

Tom:

Right.

Andrew Schorr:

And then follow-up treatment and removal of early tumors by Dr. Dinney.

Tom:

Right.

Andrew Schorr:

And then you have ongoing surveillance, but you have not had other treatment, right?

Tom:

No. I have not specific to the bladder. No. I have had some prostate issues that have been dealt with.

Andrew Schorr:

Okay. All right.

Tom:

But with the bladder I have really only had one section where I have had tumors removed.

Andrew Schorr:

We are going to learn more about that. I just want to go back over that symptom that was so scary. I know that you go around the world really judging dog shows. And were you in Asia, and that's where you had this urinary bleeding?

Tom:

I was in Korea.

Andrew Schorr:

That's a long way away, and it must have been terrifying when you had the blood in your urine, and it just was not abating.

Tom:

Well, it really wasn't because it had happened two or three times before that, in the two years before that, and what was upsetting was when I stopped the Coumadin and the blood didn't stop, and then I knew that there was a larger issue than just the Coumadin. I can't say this categorically, but I probably had never heard of bladder cancer before I was in my GP's office and he said I want you to see an oncologist, a surgeon about the possibility of bladder cancer.

Andrew Schorr:

Wow. That's scary. Well, let's go to another part of Canada now, not too far away. I know you are about 45 minutes away from Montreal. Well, also near Montreal right now there are about 50 experts from around North America and also some from beyond that who were part of a bladder cancer think tank. And not surprisingly, even though he's normally from Houston, although he likes to go back to Canada because he is originally a Canadian, Dr. Colin Dinney, who we have been talking about, chairman of the department of urology is at that think tank.

Dr. Dinney, thank you for calling in and taking a break from the dinner with your colleagues to inform patients around the world. To hear Tom talk about you and feel--you made a big difference. That must make you feel great.

Dr. Dinney:

Well, first of all, good evening, and thanks very much, Andrew, for the opportunity. Hi, Tom, it's good to hear from you. And, yes, it is really rewarding to hear Tom speak so highly of me, and that's really one of the great rewards we have in treating people like Tom with cancer.

Symptoms

Andrew Schorr:

Now, his situation was fortunately it sounds like he had a more locally contained bladder cancer. It sounds like from what I have read that if it can be discovered early, it's very treatable. It becomes more complicated when it's more advanced.

Dr. Dinney:

That's correct. Now, I think we can learn a lot about bladder cancer from just listening to Tom's story. He made a very important comment, and that is his presenting symptom was blood in his urine. And that is something that individuals should not ignore. And in fact we as urologists would recommend that anybody who has visible blood in their urine should be referred to a urologist for care because oftentimes these, this is a late presentation for people who have blood in the urine. Luckily Tom had a very, very early cancer. It was not deeply invasive, and it was treated adequately by a resection. And fortunately the majority of tumors of bladder cancer can be treated that way.

Andrew Schorr:

Now let's talk about some of the other symptoms. It can be pain with urination, frequent urination. Anything else?

Dr. Dinney:

Well, the majority of people present with blood in their urine they can see. Sometimes it can be microscopic blood that you can pick up on a routine urinalysis. Now, a few patients will complain of what we call irritative voiding symptoms, urinary frequency, urgency, painful urination, and sometimes those can be symptoms of bladder cancer, and there is a specific kind of bladder cancer called carcinoma in situ which can cause those symptoms, but most often those symptoms are not generally related to bladder cancer.

Andrew Schorr:

Now, I understand that some of these symptoms can go with other things like kidney stones or a bladder infection. How is it determined what's going on?

Dr. Dinney:

Well, I think that it depends upon the individual who has the symptom of recognizing there is something wrong and not being afraid to go see their physician. It also depends upon the physician being able to interpret when a problem is serious enough that it should be referred on, and luckily Tom's physician recognized that the visible blood in his urine was an important symptom. And so what happens next is generally someone who presents like Tom will undergo a cystoscopic examination. Basically it's a telescope that we use to view the bladder. Plus we would do some kind of an x-ray to evaluate kidneys and the ureters, the tubes that drain the kidneys into the bladder because both the kidneys and the ureters are lined by the same type of lining as the bladder is.

Andrew Schorr:

Sometimes is there a dye injected or anything like that?

Dr. Dinney:

Sometimes there is a dye injected. We used to do what's called intravenous pyelograms or IVPs. Today we often do a special form of CAT scan called the CT urogram which gives us a better three-dimensional reconstruction of the urinary tract, and we use that to visualize and look for other things such as stones, such as solid tumors of the kidney, etc. that could be causing the symptoms that are bringing Tom or others to the doctor's office.

Smoking as a Risk Factor

Andrew Schorr:

Dr. Dinney, I understand the people at highest risk for bladder cancer are usually 50 years old or older, and if they are certainly having blood in their urine, and also smokers. Now, where does smoking come in?

Dr. Dinney:

Well, it's interesting you asked that, and right now I think we have identified many of the risk factors that can cause bladder cancer. And I think today the most common cause of bladder cancer is cigarette smoking. And it's something that many people don't realize, and often even some physicians aren't aware of the fact that cigarette smoking can cause bladder cancer. Now, the risk of having, developing bladder cancer is related to the amount that you smoke, and interesting enough if you quit smoking, it reduces your risk. Other risk factors are related to environmental exposures. There are certain dyes, aromatic amines or chemicals that people in industries have been exposed to, but for the most part have been recognized causes and have been removed from the workforce.

But we recently performed an epidemiological study, and those are studies done to determine who gets bladder cancer, and found that individuals who are at risk would be those who have been exposed to diesel fuel, those who have been exposed to dry cleaning fluids, radioactive material, and arsenic, which can be in your water or exposed in other ways. And those are certain risk factors that seem to contribute to the development of this disease.

Andrew Schorr:

Let me probe a little further about smoking. So we have talked many times on this program about the dangers of smoking, and we usually think of to your heart and your lungs. How does the smoke that you take in get down in your bladder to cause any problem there?

Dr. Dinney:

Well, there are several chemicals within the smoke that you inhale that will be absorbed through the lung into the blood vessels and make their way into the bloodstream and then be secreted into the urine. Nicotine can cause some changes within the bladder that make you more susceptible to certain environmental exposures. And also there is a chemical called aminobiphenyl, which is breakdown product of the cigarette smoke that is a direct carcinogen to the bladder and is thought to be the major causal factor or the main chemical from smoking that causes bladder cancer. So it's the direct exposure of the bladder. And as you know the bladder is a reservoir. Urine sits in the bladder, and the bladder lining is exposed to these chemicals, and that leads to bladder cancer. Generally it takes between five and 30 years of exposure to chemicals to develop a tumor.

Andrew Schorr:

And, Tom, you were a smoker, correct?

Tom:

Yeah. Absolutely.

Dr. Dinney:

And that's why we are glad Tom went to our smoking cessation program, and we encourage others with this disease to look into those options in their own community.

Andrew Schorr:

Well, Tom is also glad he went there because he met your wife and then she connected him with you, and he thinks you made a huge difference for him, although certainly there are other urologists who work with you on your team who would be great too. We are going to discuss more about bladder cancer, get into further diagnostics, treatment, alternative medicines people wonder about. You are listening to Patient Power sponsored by M. D. Anderson Cancer Center. We will be right back.

Andrew Schorr:

Welcome back to our live webcast on Patient Power discussing bladder cancer. I'm Andrew Schorr broadcasting from Seattle. We have two experts with us, one a patient who has been living and treated with bladder cancer quite successfully by M. D. Anderson, Tom Touzel. He joins us from Ontario, so he is going to speak English. And then we have Dr. Colin Dinney, who is usually in Houston who is at a bladder cancer think tank meeting in Quebec. Should we do it in French? I am just joking, Dr. Dinney.

Dr. Dinney, let's go on. We understand some of the risk factors. And certainly we talked about smoking and chemicals, etc. Is there any genetic tie by the way? Is there any way to say somebody is at risk because of something in their genes? I

know that is a little bit in breast cancer and ovarian cancer. My leukemia, CLL, they think maybe it runs in families to some small degree. What about bladder cancer?

Genetics

Dr. Dinney:

Well, really in bladder cancer there hasn't been any association with familial or inherited bladder cancer. That's very, very rare. So most of the cancers tend to be what we call sporadic, again related to exposure. Now, certain individuals may be at greater risk because of their genetic makeup, but it's not a strong enough association to say that this is a genetic disease. For instance people could be at more risk because they are more susceptible to the toxins within cigarette smoke or their environment. They may not be able to metabolize the free agents as effectively, and these sorts of things can lead to a higher risk for developing cancer.

Andrew Schorr:

Okay. And just to be clear, Tom is a little older, but I am a later middle-aged man. We think of this in men, but what's the ratio of men to women with bladder cancer?

Dr. Dinney:

Well, the ratio is probably three to one. I mean, it's more common in men than it is in women, and the reasons for those is not entirely clear, but it's certainly a matter of the interest. Nonetheless, women who have blood in their urine should be investigated by urologists because they could also have bladder cancer, and oftentimes the presentation in women is delayed for that reason as well, that it's not thought to be a disease of women.

Surgical Approaches to Treatment

Andrew Schorr:

Right. A little message to women. I know you love your obstetrician maybe if you had kids and later your gynecologist, but you need other doctors too along the way, and don't hesitate to seek that out.

Okay. Let's go on. So Dr. Dinney, after you have identified that it's bladder cancer, and of course you have to stage it and see if it has spread, and we can talk more about that and when it advances later on, but surgery I know is the mainstay. So take us through what are your different surgical approaches today at M. D. Anderson?

Dr. Dinney:

Okay. Well, the first thing you would do is for somebody who would go to the operating room, the cystoscopic suite and you would do what's called a transurethral resection, and that procedure could be either a curative procedure, or it could be a staging procedure. If the cancer is not deeply invasive into the bladder wall, then that would be considered to be a curative procedure, and then

based upon the pathologist's examination of the tissues, you might go on and prescribe therapy, or you might just go on and survey the individual because they are at low risk, and about 75 percent of the tumors would be in that category.

If the individual is at higher risk, if the tumor is more deeply invasive, then really the gold standard for therapy today would be consideration of an operation to take out the bladder sometimes with chemotherapy, as well as systemic chemotherapy as well to try to improve the results of the surgical procedure, and then individuals would require some form of urinary diversion after their surgery. And there are really three ways in which one can have their urine diverted.

The simplest is to have what's called a urinary conduit, an ileal conduit where you take a piece of bowel, bring it to the skin, attach the ureters, which are the tubes that drain the kidneys, to the conduit, and it continuously drains urine into a bag. It's an ostomy bag similar to what you might see in a colostomy bag.

Now, the other approaches are to do what's called a continent diversion, meaning that the urine is not continuously draining into a bag. And this can be done by building a pouch and bringing it to the skin. We call it the continent cutaneous diversion, and the individual gets a pouch, and they are often put into the bellybutton so you can't see the opening, has to catheterize themselves to empty it every three to four hours.

In other individuals we can actually build a new reservoir or bladder out of the intestines and hook it up to the urethra so those individuals can pass urine through their urethra as they had before the operation.

And the decision as to which procedure you would do would depend upon the individual's desires and also the characteristics of the tumor and of course their ability to recover from the various procedures.

Multidisciplinary Approach

Andrew Schorr:

One of the things that I would like to discuss for a minute, because I get to do these programs with M. D. Anderson experts every two weeks, is I am always impressed by the what you call your multidisciplinary teams. So here is somebody who maybe needs maybe a more advanced surgery and maybe some follow-up with some of these other modalities. As smart as you are, Dr. Dinney, it's not just your opinion, but you have colleagues, and you talk about all this, right, and then make a recommendation to the patient?

Dr. Dinney:

Sure. We have a very strong multidisciplinary approach to the treatment of genitourinary cancers at M. D. Anderson, and our approach to bladder cancer is really no different. We have a very strong multidisciplinary team which consists of

urologists, medical oncologists, radiation therapists, and even pathologists and scientists and epidemiologists who contribute greatly to the discoveries and the changes in our treatment. Now, we also have conferences where we present difficult cases and discuss management issues, and really there is--it's very, very easy for us to get input from our colleagues in other disciplines, and we do this on a routine basis.

Many individuals for instance who have muscle invasive bladder cancer, when they come to see myself will also see one of my colleagues in medical oncology to get their opinion as to whether or not they would benefit from additional therapy such as chemotherapy given before the operation. It's called neoadjuvant chemotherapy, and it has been shown actually to improve the outcome for individuals who are undergoing a radical removal of their bladder.

Andrew Schorr:

Wow. And I should mention, I love saying this now, if you are not an M. D. Anderson patient, you are hearing the chairman of urology at what's again ranked the number one cancer center in America if not the world, and so if you are really thinking about this, and so that will lead us as we go in our discussion to where is treatment headed.

Tom, you have been around there a lot. Now, fortunately you didn't need some of the more advanced procedures, but have you been impressed with the team?

Tom:

It's amazing, absolutely amazing. You know, in the last break there was a Mr. Ayers who is a prostate patient that was speaking, and he is absolutely right. Treatment is one thing, but it's the people who are actually dispensing that treatment that are important, and certainly in the GU department it's absolutely the people that are the winners.

Follow-Up After Surgery

Andrew Schorr:

Well, let's take this further, Dr. Dinney, and we will take a break in a minute, but before we do, so post surgery now, and you do all these elaborate surgeries, whether it's something, I don't want to say more simple, but less aggressive, or it wasn't needed to be quite as aggressive in Tom's case, I know surveillance comes into play. And, Tom, do you have cystoscopes every three or four months, or how often is that?

Tom:

I did. I had the scope every three months from the time I was diagnosed until in June. In June I had a scope, and now they have increased the time to six months, so I don't go back for six months, but it's because I have been clean for a while.

Andrew Schorr:

Right. That's like me with my leukemia, and that's good news. You always want longer and longer intervals. So help us understand that for a minute, Dr. Dinney. So surveillance is important because it can come back, and I know we will talk about how do you lower that risk, but that's something you're always watching for, right?

Dr. Dinney:

That's correct. And really the best schedule for surveillance is a matter of some dispute. On one hand you don't want to be performing procedures that are needless, and on the other hand you don't want to be doing a procedure that's considered invasive more often than you need to. And so it's a balance. And we tend to want to be able to identify these tumors early and to provide treatment at a time before it becomes symptomatic or a problem or more advanced.

Now, generally if it's a low-risk tumor, which has a very low risk of progressing to invasion or to the point where other therapies such as an operation to remove the bladder has to be implemented, you would do surveillance cystoscopies with or without some form of bladder urinary marker such as a cytology, which can help identify abnormal cells in the urine, and use that information to try and detect the presence of cancer. And generally we do a procedure, we perform this procedure at three- to six-month intervals in the first year or two, and then if someone remains free of cancer, we would lengthen the interval.

Now, if the tumor has any high-risk features, if it looks aggressive under the microscope to a pathologist, if there are large tumors, if there is multiple tumors, or if there is multiple recurrences, then we would maintain closer surveillance, and often we would add other therapies. I might also add that after we do resections of these small tumors we often give a single dose of a chemotherapeutic agent into the bladder to try and reduce the recurrence risk for that tumor.

Andrew Schorr:

We are going to talk a lot more about that after the break, Dr. Dinney, what do you do, what can you introduce in the bladder, what are other treatments, alternative treatments people want to know about too.

We are doing a live broadcast on bladder cancer, Patient Power sponsored by M. D. Anderson. We will be right back.

Treatments

Andrew Schorr:

You are back listening to Patient Power as we discuss bladder cancer with Dr. Colin Dinney, chairman of the department of urology at M. D. Anderson, and also his patient Tom Touzel, who coincidentally are both joining us tonight live from different parts of Canada. Tom lives in Canada some of the time, sometimes comes

down to Texas for his work with M. D. Anderson and helping other patients and helping related to the support of research as well. And Dr. Dinney is up at a bladder cancer think tank near Quebec or in Quebec province.

Dr. Dinney, let me ask you about this. Just before the break you were mentioning about injecting something into the bladder to try to lower the risk of tumors. Again what do you inject? And then let's learn more about these various approaches you use like that.

Dr. Dinney:

Okay. Well, I think that we are talking about non muscle-invasive tumors that really our goals of treatment are to prevent the cancer from recurring, and we also want to prevent progression of the cancer. Now, we also want to make this as less morbid a therapy as possible. So generally after somebody has a tumor that's removed we will often give a single course of chemotherapy into the bladder in the recovery room after the procedure because that's been shown to delay the frequency of recurrences. It delays the frequency of recurrences by about 10 percent, but it's been shown to be effective in individuals. And so we do offer that to individuals who have small tumors that we think will be amenable to it.

Now, if individuals have higher risk disease, if their cancer looks angry under a microscope, we call that high-grade cancer, if they have carcinoma in situ, which is a form of very aggressive cancer which is confined to the lining, a tumor which is minimally invasive into the bladder wall, that is it is starting to invade but not into the muscle, in those individuals we will actually go back and rebiopsy the bladder to make sure that we are not understaging it because understaging of these tumors is a very, very frequent problem and can be quite deleterious and dangerous. Also people who have large tumors or recurrent tumors or multiple tumors when we diagnose them will all be candidates for more aggressive intravesical or therapy put into the bladder.

Now, there have been a number of agents that have been studied in this scenario including a number of chemotherapeutic agents including thiotepa, mitomycin which we commonly use, and others, and then some of the other immune stimulants, the most prominent which is called BCG which is actually the attenuated form of a tuberculosis vaccine. Now, BCG is given into the bladder, and we generally give it once a week for six weeks. It's reasonably well tolerated. It does cause individuals to complain of frequency of urination, sometimes some burning and some pain and sometimes blood in the urine. But BCG has been shown to be the most effective agent for reducing recurrence and reducing progression. And in fact about 80 percent of individuals who are candidates would be expected to respond to BCG.

Listener Questions

Andrew Schorr:

Okay. Well, Dr. Dinney, a lot of people wonder beyond what you can do is there something that they can do. And so Donna wrote in from Jefferson City, Missouri with this question. "What do you think about Oncovite vitamins? I am currently not taking any specialized vitamins and wondered which one might be best to start taking. Does it matter? The treatment options that I have been taking," meaning the treatment she has had previously, she said her last treatments were mitomycin C, maintenance ending just at the end of July. She has also heard about something called Theralogics and wondered the difference in the vitamins. So help us understand vitamin therapy if there is any evidence for that.

Dr. Dinney:

Okay. First and foremost I think individuals who smoke should stop smoking. I think that's one thing someone could do for themselves. And while it has not been shown to be definitively correlated with reduction in recurrence rates, it makes sense to drink more fluids so that you reduce the concentration of whatever could have been in your urine that was causing the cancer to grow. Now, the issue about the Oncovite is a very interesting issue because in 1994 Don Lamb who was one of the pioneers of BCG work wrote a paper about improving the response to BCG by adding a megadose vitamin called Oncovite, and Oncovite contained large concentrations of vitamin A, B6, C, and vitamin E. And he compared the outcomes in terms of recurrence of cancer in individuals getting BCG who had Oncovite and then who had just regular multivitamins. And it was quite a dramatic difference in recurrence rates favoring individuals who took Oncovite. And so for many years it's been propagated that Oncovite really does reduce the recurrence rates.

Now, it's funny, it just happens to be very timely, but just this year at the AUA and again at the meeting I'm at today, the results of a more recent study that were designed to look at the combination of BCG plus interferon and also the combination of Oncovite with BCG showed that the Oncovite really did not improve the response to BCG. And while it may not hurt you, it does not have the benefit that we once thought it did.

Andrew Schorr:

So people can spend their money on different things and maybe older studies might be quoted, but stop smoking is number one, right?

Dr. Dinney:

Stop smoking is number one. Interestingly there has been reports on the diet and influence of diet on bladder cancer, and for instance the consumption of broccoli has been shown to be chemopreventive. And so I think that if you listen to your mother and eat your vegetables and fruits and drink plenty of water, I think that's one thing that you should do to try and minimize your risk for having recurrence of your cancer.

Andrew Schorr:

Now, when you go back to Houston, you are going to tell former President Bush that, right?

Dr. Dinney:

I think that's correct. He should eat his broccoli. He should listen to his mother and eat his broccoli.

Andrew Schorr:

Okay. All right. Or listen to Barbara anyway.

Dr. Dinney:

That's right.

Andrew Schorr:

Now, here's another question we got. This is from Kristin in Dallas, and she writes in, "My mom has been diagnosed with T2a-G3 bladder cancer," and you will tell us what that is," and she is scheduled for radical cystectomy next month. Will the doctor be able to determine if there is lymph node involvement prior to her radical cystectomy surgery? If so, how? Or will we have to wait for the pathology report after surgery? Her doctor has said that he does not suspect that it has spread, but how do you know for sure, and when do you find out?"

Dr. Dinney:

Well, we often don't find out until after the operation. Now, if somebody has a tumor that has invaded the muscle wall of bladder then we would routinely perform a CAT scan or some other imaging study to stage the cancer to make sure it hasn't progressed and look to see if there are any enlarged lymph nodes on the CAT scan and look to make sure it hasn't gone to other solid organs and also obtain a chest x-ray. Now, on a CAT scan the only real way to determine whether the lymph nodes are involved is to see whether or not they are enlarged. And if the lymph nodes are enlarged, if they are over a centimeter in size for instance or there is multiple lymph nodes that are enlarged, then one should consider biopsying them before proceeding on to an operation.

Oftentimes individuals who have a muscle-invasive disease will have a normal CAT scan, and in fact unfortunately about 15 to 20 percent may harbor lymph node metastasis at the time of--so it's detected only after surgery after they are removed. Now, when we perform this operation to remove the bladder, we also do a lymph node dissection, and there is a lot of discussion in the urology community as to the importance of this procedure both as a staging procedure and as a therapeutic procedure as well. And so we tend to today promote more extended lymph node dissections as part of the routine management of this disease.

Andrew Schorr:

Okay. Wow. There is a lot to think about. I am always impressed by the art of medicine, if you will. You know, we think on the outside that everything is cut and dried, but you all have lots of debates about these things, and I am sure that's going on there in Quebec as you meet and you have your think tank meeting.

Dr. Dinney:

That's true. We are trying to move towards evidence-based medicine, and we all strive for that, but oftentimes there is just you rely on your experience and you rely on the evidence that you have acquired over the years to make these decisions. And many of these decisions we make are based on experience that's been compiled and combined over time. As I say, we are changing towards a more evidence approach, and we will see that evolve over the next several years and next decades.

Andrew Schorr:

I want to get in one more question before we take another break. This came in from Alan, and he asks some things that are kind of technical, so you will help all of us understand what he means. So Alan writes in, "I'm the recipient of a neobladder, neobladder surgery at M. D. Anderson just last month," with I guess a colleague of yours, Dr. Kamat, if I am saying it right. "In the bladder cancers you treat have you found or identified any that were caused or likely caused by something he calls schistosomas? Would the standard pathology test done on the tissue including the bladder taken during surgery reveal the presence of schistosomas?" I don't know what that is.

Dr. Dinney:

Schistosomiasis.

Andrew Schorr:

Maybe help us understand.

Dr. Dinney:

Yes. Schistosomiasis is an infestation that occurs mainly in the areas of Egypt or on the Nile. It's a worm, a parasite that causes bladder cancer. Historically it caused a variant histology, a variant form of bladder cancer called squamous cell carcinoma, where most of the cancers that we treat are called transitional cells. That's the type of cancer that they are. Now today in Egypt and those other countries because of increased smoking, because they have started to treat schistosomiasis, there has been a change in the incidence of this form of squamous cell carcinoma. But schistosomiasis would be considered in someone who had squamous cell carcinoma, but the pathologists would be able to recognize evidence of the infection when he or she examined the bladder, when they examined the bladder under a microscope.

Andrew Schorr:

Okay. Well, we got a little science lesson there. Here is another question I want to get to here. I got a whole list of them. This one came from George in Lake Charles, Louisiana. He says, "I am three weeks out from my surgery. Maybe I am expecting too much too fast. I finally got my catheter out just this past Wednesday, but now I have no bladder control. If I am sitting and go to stand up, I cannot figure out how to tighten up so I don't lose control. I have no problem at all sitting, standing, or sleeping, only when I try to move to a different position." And his question is he spoke to the doctor, and all he says was it will get better. And he said a lot of nerve damage is down in that area. So what he is wondering is it's never been mentioned about doing Kegel exercise. He is wondering is there something he can do, and will it really get better, and how soon? So it's really about surgical recovery.

Dr. Dinney:

Yeah. I think that George should look forward to recovery. Three weeks after his catheter has been removed is very, very early in the course of a neobladder reconstruction, and it can take weeks to months for him to show any improvement in his control because...

Andrew Schorr:

His catheter was just out just this past Wednesday actually.

Dr. Dinney:

Oh. No, I think that he has nothing to really worry about because he hasn't even had time to really begin to gain that control. He has got to actually be able to develop enhanced bladder capacity even before he can develop any kind of control during the day. So he is going to have to be patient and just go through the process, try and hold his urine as long as he can until it leaks so that the pouch can stretch. And doing the Kegel exercises may be of some benefit to him, tightening up those same muscles that you use to control your bowel movements. You can do sets of them, you know, every hour for a couple of times a day. That should be good. And give himself some time.

Andrew Schorr:

All right. And we are going to come back to Tom and get his pointers as well as we continue. We are going to take a break. We will continue our discussion on bladder cancer and look to where treatment is headed and some of the research they are doing at M. D. Anderson as we continue Patient Power sponsored by M. D. Anderson Cancer Center.

The Importance of Being Proactive

Andrew Schorr:

Welcome back to our live broadcast on bladder cancer with Dr. Colin Dinney, the chairman of the department of urology at M. D. Anderson in Houston, and also Tom

Touzel, who was diagnosed back in March of 2004 and had an intervention first in Florida but was not clean, as he said, then went to M. D. Anderson, sought out that treatment, and he has been doing great.

Tom, you heard the question a minute ago about, you know, recovering from surgery. And as you said when you were diagnosed you had never even heard of bladder cancer. What encouragement would you give to people who have these hopefully early signs of bladder cancer, take action and get some treatment right away, as far as the recovery? Because the whole thing is unnerving, first the diagnosis, and then the urinary problems, what encouragement would you give them that they can get through it?

Tom:

Well, I am a very strong believer that the proactive are the winners. The proactive are not necessarily the survivors, but if you get involved in your treatment and truly embrace your treatment, you will develop an understanding, and you will develop a feel for your cancer, a respect for it that is important in fighting it. And the young man from Lake Charles, Louisiana who just had his catheter removed and was asking about the Kegel exercises, I would encourage him to do that. That's one thing that he can do by himself, controlled totally by himself, and it will make a difference. I certainly would never offer a guess as to how long it will take, but I can promise you that it will make a difference. If nothing else, he will realize that he is participating in his recovery and his, you know, conquering this disease.

Andrew Schorr:

Let's go back to Dr. Dinney. Dr. Dinney, M. D. Anderson is a renowned research institution as well as providing state-of-the-art care. Tell us about research going on at M. D. Anderson related to bladder cancer and how it could make a difference.

M. D. Anderson SPORE (Specialized Program Of Research Excellence)

Dr. Dinney:

Well, we actually have a very, very strong research program in bladder cancer at M. D. Anderson Cancer Center which is funded by various grants including what's called a SPORE. A SPORE is a Specialized Program Of Research Excellence designation grant. It's a grant that's designed to promote what's called translational research. That is research that can be quickly translated from the laboratory and into the clinic. And in fact we are the only center in this country to have a SPORE in bladder cancer. And there are I think about 60 SPOREs in the country representing other sites.

Now, because we have a multidisciplinary approach to this disease, it's not just urologists treating this disease, we are able to have a very, very, deep program. And we are trying to develop new strategies to improve the delivery of health care to individuals with both early disease and late disease. Because even though individuals who have non muscle invasive or early bladder cancer are not at

immediate risk for death from this disease, these cancers can recur. If the recurrences carry on unchecked, up to 15 percent of people who have only superficial disease can die of their cancer within 10--within 20 years. So we have a lot of activity trying to stratify the risks to individuals with cancer, that is trying to personalize their approach based upon risks looking at their genetic makeup, looking at characteristics of the tumor, and trying to match those characteristics with what we know about prognosis and response to the various treatments.

We also are trying to develop new ways to identify cancer early. And one of our scientists, Dr. Czerniak, has developed, has identified several genes which he calls forerunner genes which appear to be altered or lost well before the cancer develops. And we are also trying to develop new treatments for the superficial disease because as I say even though BCG is the mainstay of treatment, and it's very effective, but over time about 50 percent of people will fail BCG, and to this date there is really no effective therapy for BCG failures that has been identified. So the alternative is an operation to remove the bladder. We are trying very hard to work to identify new treatments. And in fact we have therapy protocol where we are actually putting in a gene into the bladder, into a virus and administering it to the bladder to try to treat BCG refractory bladder cancer.

With respect to more advanced disease, we are trying to identify better approaches to deliver chemotherapy. We are working on strategies to deliver chemotherapy before an operation, to try and treat those individuals who might have microscopic disease that's present in other sites that was not detected before surgery and improve their outcomes after surgery. And we are developing new targeted therapies, again trying to personalize the delivery of chemotherapy to individuals who have metastatic disease. And so it's quite a comprehensive approach to the treatment of this disease.

Andrew Schorr:

Wow. What a rundown. Well, I was going to ask you, Tom, whether given everything Dr. Dinney said someone should make a beeline for M. D. Anderson if they have bladder cancer to have the full range of research brought to bear for them above and beyond standard therapy. I know that's what I did with my leukemia. You probably would say yes, right?

Tom:

Absolutely. Absolutely.

Dealing with Recurrence

Andrew Schorr:

Let's take a call from Tommy who joins from us from Alabama. Tommy, thank you for listening. We are going to go just a couple of minutes over to bring in Tommy's call and then get some summary comments from our doctor and Tom.

Tommy from Alabama, you are on the air. What's your question?

Caller:

Well, my question is, I went through--I have had five of those tumors removed, and they are called non-invasive tumors. But I have just wondered maybe--the last checkup was fine, and it seems like I go about a year, and then they find another one, and they remove it. And then, you know, I go in every three months, and I think it will be okay, and then one springs up again and they have to remove it. And what I was wondering now maybe like my skin seems like it's changing through the years like, you know, I am getting like moles on my skin that I used to not have and a lot of things, and I just wondered if that has anything to do with bladder cancer.

Andrew Schorr:

Well, let's find out. Dr. Dinney, any connection?

Dr. Dinney:

Yes. Your cancer obviously is coming back. It's recurrent, but luckily it's been noninvasive. The question of whether or not you would need more treatment for that cancer would depend upon the characteristics of the tumor. Oftentimes here we would give you a single dose of chemotherapy to try and reduce the frequency of the recurrences. And yours haven't been too frequent.

Now, with respect to the skin changes that you are having, I think that--I don't think there is any association between that and your cancer. Do you spend a lot of time outside?

Caller:

Well, I did through the years, you know. Through the years I was out in the sun.

Dr. Dinney:

Yes. I think that's correlated to the fact that you had skin exposure and not related to your bladder cancer. I think that you should, you know, you could talk to a dermatologist there and have them take a look at some of those spots. Generally I don't think it sounds too serious, but that's what I would recommend that you do. But feel relieved that it has nothing to do with your bladder cancer.

Andrew Schorr:

Tommy, how old are you?

Caller:

I am 59 years old. I was around the paint and body business, and I was around, my doctor is from Anderson, Alabama, and I went to South Carolina to a urologist that was at Emory in Atlanta, and he has moved to Charleston, and he took over that clinic there. And I went to see him, and he told me my type cancer is the noninvasive type that was just minimal, that they were doing what they were supposed to do. And he said once they see them, it's kind of like a plowed field, and they are subject to spring up at any time. And he said if they come up, make sure you go every three months, get them checked, and if they spring up take them out immediately. And he said he was doing what he was supposed to be, so I not only went to Alabama, I went all the way to Charleston to him because I thought he was the best in our area.

Andrew Schorr:

All the best to you, and I will just put in a commercial for Dr. Dinney and his team because I went from Seattle to Houston, is if it's appropriate sometime or for other people listening might consider M. D. Anderson for a second opinion or do they have research. Again, the whole idea is if you are living with bladder cancer, and as you say they pop up some of the time, is there something that can be done, either standard therapy or maybe a clinical trial, that can lower that risk of recurrence?

Tommy, all the best to you. We are just going to go on for a couple more minutes.

Dr. Dinney, I want to get a summary comment from you. And that is you have been at this a long time, and you have a whole department there and researchers and fortunately research dollars, federal and otherwise being committed to this. Are you encouraged that even if somebody is diagnosed with bladder cancer, hopefully noninvasive like Tommy's and hopefully earlier, you can keep it at bay and you can just go on and live a long life and not have the fear of it spreading or leading to an early demise?

Dr. Dinney:

Yes. I think that for the most part that is true. And most cancers if they are detected early and are treated appropriately can be cured. Now, only a small number of individuals will present with metastatic or cancer that has spread, and while that is at the time being not a curative cancer for the most part, we are certainly making inroads in our understanding of this process where we hope that one day in the near future we are going to be able to cure those cancers.

And I think the one thing that people should keep in mind is that individuals who are involved in clinical trials have a better survival and outcome from their cancers than individuals who don't. And it just may be more careful surveillance and careful

follow-up and more attention to your disease, but I think that is an important component to keep in mind. Whenever possible one should get involved in a clinical trial, especially in people whose cancer is more advanced.

Andrew Schorr:

And Tom Touzel, any parting words for men and women and family members who have been touched by this diagnosis of bladder cancer to give them encouragement? You have been living pretty well post treatment. What would you say to them?

Tom:

Well, I have been very fortunate because of the intensity of my own personal disease. It is noninvasive, and although I have had a few surgeries and scopes every three months for the last four years, it's still, it is--you know, people say to me, my god, you are going for another scope, or you are doing this again, and I say it's like being a diabetic. It's like checking my blood levels and glucose levels fairly often. It's a situation of management.

Andrew Schorr:

I have to share one story you told me on the phone just before we go. So your dad was a doctor.

Tom:

Yeah.

Andrew Schorr:

And you are 70 years old. This is, you know, growing up a long time ago, and you told me on the phone yesterday that he was kind of training you hoping you would become a doctor too. And those were the days when the doctor was the expert, and people always did what the doctor said and didn't ask questions. But he was encouraging you to ask questions because he thought you would be a doctor. Well, you didn't end up doing that, but you do believe in asking questions as what I like to say is a powerful patient. So is that the era we're in now? Your dad would still be proud, and asking questions leads to better care?

Tom:

I think today he would. And I can remember going on rounds with him at the hospital, and he was a pediatrician so he would visit newborn babies and their mothers in the OB ward, and when these women would ask questions he had no patience for them at all, especially if they questioned something that he told them to do. And I would discuss that with him and ask him why, you know, why he couldn't listen to them. And he actually couldn't tell me except to say that he knew best, and that they should listen.

Well, now Colin. He welcomes questions. He welcomes discussions. He doesn't talk down to me or any other patient. I mean, because I am involved with the

support group there, I spend a lot of time on the floor and in the office, so I run into him. So it's easier for me to ask him a casual question, you know, on Friday morning when nobody else is around, and that I don't have to make an appointment to see him.

Andrew Schorr:

Well, I am so glad that things have changed. We are short on time, but Tom Touzel, I want to wish you all the best. You and I are going to be together soon at the big Anderson network meeting coming up early in September. Can't wait to meet you in person. And all also don't you think we ought to say to your doctor, Dr. Dinney at the think tank, merci beaucoup for joining us from Quebec?

Tom:

Certainement.

Andrew Schorr:

Very good. Dr. Dinney, thanks for being with us today and taking a break from that meeting of all those smart colleagues you have got there. We really wish you all the best, and we will see you in Houston. Okay?

Dr. Dinney:

Thank you.

Andrew Schorr:

Okay. And that is Dr. Colin Dinney and Tom Touzel. Tom, all the best to you. I'll see you in Houston.

This is what we do on Patient Power. I am so thankful to M. D. Anderson for many things. One thing is though they I think, I don't know if they cured it, but who knows, but certainly knocked my leukemia back so I get to do this. And then they sponsor these programs, and I have a great time and meet fascinating, inspiring people.

In two weeks we will do a program talking about neuropathy, the nerve effects sometimes of treatment in cancer can give people guidance. That's two weeks. As always, knowledge can be the best medicine of all. If you are going to be at the big Anderson network conference early in September, I hope to meet you in person. Thank you for joining us. I am Andrew Schorr. You have been listening to Patient Power sponsored by M. D. Anderson Cancer Center. Have a good night.

Please remember the opinions expressed on Patient Power are not necessarily the views of M. D. Anderson Cancer Center, its medical staff or Patient Power. Our discussions are not a substitute for seeking medical advice or care from your own doctor. That's how you'll get care that's most appropriate for you.