

Advances in the Treatment of Lung Cancer
Webcast
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Introduction

Andrew Schorr:

Welcome once again to one of our Patient Power programs on mdanderson.org. I'm Andrew Schorr, happy to be with you once again. Happy to be a leukemia and a cancer survivor and have benefited from wonderful care from M. D. Anderson. I'll always be indebted to that team down there. And imagine, I came from Seattle down there to be in a clinical trial and get the care that was right to me, and as people do around the corner in Texas and around the world, and you'll be hearing about that today.

Today's program is about lung cancer. And lung cancer as you may or may not know is the leading cause of cancer death in the United States. And this year there will be 213, approaching 214,000 people who are diagnosed with lung cancer in the United States. Scary and of course most of the time there's a connection with tobacco use. There are instances when it's not, and we'll hear about that too. But certainly imagine if we could stop tobacco use we know we'd make a big difference. So we'll certainly be talking about prevention for folks and loved ones as we continue today.

But we're also going to learn about the latest treatments. And certainly M. D. Anderson has paved the way in surgical approaches, their new biologic approaches and medicines that can help, chemotherapies and targeted biologic therapies used together, and certainly great advances in radiation that's also used extensively in lung cancer. Tonight you're going to hear all about it. And if you want to hear it again we'll have a replay on the mdanderson.org web site, and there'll be a transcript shortly too so you can tell people around the world, because certainly this is authoritative cancer information, and there just isn't anything like this. So thank you for being with us once again as we do this every two weeks today on lung cancer.

A Lung Cancer Patient's Story: Early Diagnosis

So I make friends with our guests usually a couple of days before the programs and learn about their story. And you're going to hear a couple of stories from patients that are just remarkable, remarkable in different ways. So first I want you to meet my new best friend, Ann Kagle. Ann is 75 years--71 years old, excuse me, and she lives in Houston. She's lived all over the country. And for 45 years she was a practicing nurse, and she did all sorts of nursing, clinics, she was a school nurse,

she was in the hospital, did all sorts of things. And then what was it? When were you having that check for tuberculosis screening when you were volunteering to help with hospice? When was that, Ann?

Ann:

That was three years after I had retired. I started volunteering for hospice, and routinely they checked us for TB.

Andrew Schorr:

Okay. And what year was this?

Ann:

And this was in 2005.

Andrew Schorr:

So two years ago. So you had a--being checked for TB. You had an x-ray, and what did the x-ray show?

Ann:

The routine chest x-ray showed that I had a nodule in my left upper lobe of my lung. And that had not been there on previous x-rays that they checked.

Andrew Schorr:

Right. So this, of course, could be an early sign of lung cancer. But yet you had no symptoms.

Ann:

I had no symptoms at that point. It was an absolute shock when they said this was there.

Andrew Schorr:

And being a nurse, you knew what lung cancer could mean, a very serious diagnosis.

Ann:

I certainly did. And just hearing you have a nodule is sort of devastating.

Andrew Schorr:

Right. Now, we should mention your husband of 50 years, Joe, he had had a screening test for colon cancer, and in fact he did have really colon cancer, but it was handled surgically. And he's fine, right?

Ann:

And again he was diagnosed early with a routine colonoscopy, and they did surgery on him, and again he was real fortunate that the cancer was all removed.

Andrew Schorr:

Right. And it's about early detection, but often the symptoms for lung cancer, we'll learn, develop later, and then of course it's more serious as the cancer may well have spread.

But in your case, you were down in Waco, Texas, you had lived all over. But I think it was your daughter who was living in Houston, correct?

Ann:

Correct. Our daughter was in Houston

Andrew Schorr:

With your grand kids, right.

Ann:

Shortly after I was diagnosed in Waco we had decided that we would like to move to Houston, one, to be close to our daughter and her family but also, you know, they sort of said M. D. Anderson is the best.

Andrew Schorr:

Well, I vote for that. It was for me. So there you go to M. D. Anderson, and they do further exams. And it becomes apparent that surgery could be of benefit to you, and that's where you met Dr. David Rice, right?

Ann:

Correct. He was my physician as soon as I went there and directed the diagnostic studies, which pretty much was x-rays and CAT scans and then a direct biopsy into the nodule.

Andrew Schorr:

Okay. Now, I just want to go jump to the end of the story for a second. And the idea is that you had treatment at M. D. Anderson and now two years later you're just leading a very normal life, right?

Ann:

Correct. I had surgery there and Dr. Rice was able to remove the left upper lobe just through using a scope which is the latest technique.

Meet Thoracic Surgeon Dr. David Rice

Andrew Schorr:

Well, let's find out about that. You're right, your doctor from M. D. Anderson, Dr. David Rice, associate professor of thoracic and cardiovascular surgery is with us.

Dr. Rice, welcome to the program.

Dr. Rice:

Thank you, Andrew.

Andrew Schorr:

And we're glad to connect you back you back with your patient.

Dr. Rice:

Yes, it's great.

Andrew Schorr:

Yeah. It's a great story. Ann just mentioned it. Her lung cancer was found early, and so she had a type of procedure that you specialize in, and that is a minimally invasive approach, not always possible in lung cancer, but what is it and what's the benefit to somebody like Ann?

Benefit of Minimally Invasive Surgery

Dr. Rice:

Well, the benefit of the minimally invasive approach is that the incisions are much, much smaller than we have to use using a standard conventional approach. The typical and sort of old-fashioned incision, if you like, for lung cancer involved an incision about six inches in length and required us to divide one of the ribs usually and retract the ribs apart. And you can feel your own chest wall. The ribs are really not designed to be spread apart. And when you do that it causes an awful lot of pain.

So what the thoroscopic technique allows us is using a special video camera where we're able to actually look inside the chest wall without actually having to spread the ribs open. We have specially designed instruments that allow us to do all the dissection that you normally would do with an open procedure through very small little incisions without having to spread those ribs. And it's really the limited invasiveness of the whole thing allows quicker recovery and certainly less postoperative pain, we feel, than the old-fashioned procedure.

Now, it's not, as you point out, suitable for everybody. Obviously, Mrs. Kagle was fortunate in that she had a very early stage lung cancer. Her tumor was about an inch in diameter. And really for those small tumors a minimally invasive approach is ideal.

Andrew Schorr:

Ann, so what was the recovery like? Certainly we know that when you have major surgery on your lungs that's a big deal. Not that this wasn't a big deal, but how was the recovery?

Ann:

The recovery really went very smoothly. I left the hospital after four days. I walked the evening after surgery and I was--in three weeks was pretty much back to normal except for a restriction on lifting too heavily of equipment. Even a vacuum cleaner was a no-no, which I really hated. But my recovery truly went very well.

Andrew Schorr:

I'm glad to hear that. Now, I understand Dr. Rice has recently told you that you can just come back in a year?

Ann:

Correct. My first of May visit he said now my visits could be just yearly, as opposed to six months.

Andrew Schorr:

That sounds good. Now, we did get an email question, Dr. Rice, that I just want to pose now and then we'll come back to this later.

Jessica from Houston wrote she's currently discussing surgery as a treatment with her physician. He's not mentioned the minimally invasive approach. I take it maybe she's not an M. D. Anderson patient too. She asks who is a candidate, but can it be done at her local community hospital?

Dr. Rice:

You know, I can't answer that question. A lot depends on the stage of the cancer, the clinical stage, which is sort of your best guess as to whether it's an early stage cancer or middle stage or late stage cancer. If her tumor would involve the lymph glands, for instance, or was larger than three or four centimeters, it may just may not be technically feasible to do a minimally invasive approach.

Nor does every thoracic surgeon feel comfortable doing minimally invasive lobectomies. It certainly is a somewhat specialized technique, and that I know of at least there aren't that many other thoracic surgeons in our locality at least who are specializing in this minimally invasive procedure. So, you know, it would depend on how comfortable her surgeon is in performing the procedure and also on the actual size and stage of her lung cancer

Andrew Schorr:

Okay. But it's not done at every cancer center for sure, nor is it right for every patient.

Dr. Rice:

It's a pretty new technique, really only been around for the last three years or so.

A Lung Cancer Patient's Story: Late Diagnosis

Andrew Schorr:

Okay.

Now, let's go on and meet our other guests as well. Now, on the one hand we had Ann, close by in Houston and made a point of being in Houston near her kids and grand kids but also get the benefit of M. D. Anderson being right there. And then we have up in Grand Rapids, Michigan, Elaine Dalcher, and Elaine did not have the lucky break of having no symptoms and having a lung cancer seen, just one little nodule on the x-ray. Elaine, thank you for being with us. You're an art teacher. So you were going to your doctor, your local doctor, in Grand Rapids complaining of hoarseness, almost like laryngitis, right?

Ms. Dalcher:

Correct.

Andrew Schorr:

And it turned out after you finally went back and back and back, you had a chest x-ray. What did it show?

Ms. Dalcher:

Well, it showed a large tumor in my right lung.

Andrew Schorr:

And you also had some swelling or a lymph node on your neck; is that right?

Ms. Dalcher:

Yes, I did.

Andrew Schorr:

And cancer that had spread, as well?

Ms. Dalcher:

Yes. So when I finally got diagnosed it was fourth stage, non-small cell lung cancer.

Andrew Schorr:

And the doctor said what advice to you about how long you had to live?

Ms. Dalcher:

Well, approximately six months and to get my affairs in order. But they could try some chemotherapy if I wanted to. But he wasn't very positive about that.

Andrew Schorr:

I'm going to telegraph the story because we're going to learn more of it as we go, but this is 2007. When were you told this?

Ms. Dalcher:

I was told this in May of 1998, so just about--it was a Memorial Day, so always on Memorial Day I celebrate. This year it will be my ninth year.

Andrew Schorr:

So you and your friends did a lot of research, and the name M. D. Anderson kept coming up for you, didn't it?

Ms. Dalcher:

It did.

Andrew Schorr:

And what was this place? Maybe you didn't know much about it. We're going to take a break in a minute, but I want you to continue this story. And then we're going to meet another medical expert from M. D. Anderson who specializes in radiation oncology, which is so important to many lung cancer patients and was to you, Elaine. We'll hear more of your story and meet Dr. Kara Bucci when we come back on Patient Power right after this. Thank you for being with us on Patient Power as we continue, brought to you by M. D. Anderson Cancer Center.

The Path to M.D. Anderson Cancer Center

Andrew Schorr:

Thank you for being with us, especially if you're joining us live on our webcast. We do programs with M. D. Anderson every two weeks. Once a month they're live, and then we come back two weeks later. We have a recorded program that's just as memorable. We have leading experts and inspiring patients.

And we certainly have two inspiring patients with us today and we have two leading experts as well. Let's go back to Elaine Dalcher who joins us from Grand Rapids, Michigan. Elaine, so there you were up in Michigan. Your doctors there had said, you know, get your affairs in order. You all hit the internet, just like I did for leukemia, and you found out there were a lot of clinical trials and research and therapy that was going on at this place, M. D. Anderson, right?

Ms. Dalcher:

Correct. And my friend's brother had also had some good success there, so I got an appointment. Went down and Dr. Fossella said, I can treat your cancer. And Dr. Komaki was positive as well, my radiation oncologist.

Andrew Schorr:

Right. So Dr. Fossella's a medical oncologist, Dr. Komaki a radiation oncologist. We'll meet one of Dr. Komaki's colleagues in just a second, Dr. Bucci.

So here you were, they were sort of giving up on you right in your own locale. You made a trip down to Houston. I think you were there just, what, four or five days later, right?

Ms. Dalcher:

Right.

Andrew Schorr:

And so that conversation with those doctors gave you some hope?

Ms. Dalcher:

It did. It gave me and my family some hope. And we just--I moved down there, and I actually had people come, different people come and live with me for a week at a time so I wasn't by myself.

Andrew Schorr:

Now, just to complete your story. So you lived there a year. Your tumor in your chest was too advanced for surgery, I understand. We'll learn a little bit more about that. So you had chemotherapy and radiation, and we'll learn about how that worked. But eventually you got to come home to Grand Rapids. And as you said that was years ago now. The treatment went from 1998 into 1999. Here we are in 2007. And what was the news you were given by your doctors the other day? How often do they want to see you?

Ms. Dalcher:

Actually, for the last two years I've been coming every year.

Andrew Schorr:

That's so cool.

Ms. Dalcher:

Yeah.

Alternatives When Surgery is Not an Option

Andrew Schorr:

That's so cool. Now, let's have a reality check, and we're going to meet with Dr. Kara Bucci, who is a radiation oncologist, and she is an assistant professor of radiation oncology at M. D. Anderson.

Dr. Bucci, we wish everybody could have that result, and we recognize that Ann and Elaine are just extraordinary stories, both ends of the sort of what showed up

on the chest x-ray. But the effort, I'm sure, with every patient is to have them live as long and as well as they can. Now, Elaine did not have surgery, but radiation and chemotherapy went hand in hand. Is that often the case when somebody's surgical prospects are not that good but yet radiation and chemo can make a big difference?

Dr. Bucci:

It is, especially for later stage patients. Patients who have lymph nodes involved frequently are treated with chemo and radiation together. The other indication for radiation is patients with early stage tumors who can't get surgery either because they're not appropriate candidates for surgery or they have medical reasons that they can't get surgery. So radiation alone can be used or radiation and chemo together.

Advances in Radiation Therapies

Andrew Schorr:

Now, when we think back years ago, and I don't know, Ann--Ann, you were a nurse for many years, but certainly new people--Ann, I bet you did, and Elaine, maybe somebody in your family years ago had radiation--and you think of radiation just like, you know, a big, a big, you know, nuclear explosion in your body. And certainly years ago there were side effects of radiation and even sometimes other things would come up. You all in the radiation oncology field have come a long way, haven't you?

Dr. Bucci:

We have. I wish you could see me smiling at that description. Radiation sounds scary especially when you relate it to nuclear power plants and things. We've come very far in the past ten and even five years. The side effects from radiation now are nothing like they were a few years ago. People who have friends or family members that were treated years ago may have had side effects like skin side effects or trouble swallowing that were much worse than they are today.

Andrew Schorr:

I was just going to ask Elaine. Elaine, did you have some side effects from the radiation, because certainly you had a lot.

Ms. Dalcher:

Yeah, I did. I did have third degree burns on my chest and back.

Andrew Schorr:

Right. But the point is you're alive today.

Ms. Dalcher:

Right. It was very well worth it.

Andrew Schorr:

Well worth it. So let's put that in perspective. But even at that though, Dr. Bucci, we've limited it. You're learning now how to modulate the radiation and do all sorts of things as best you can to kill the cancer cells and not the healthy tissue, right?

Dr. Bucci:

Yes. We continue to target the tumor better and better and spare the normal tissue. So even in the past seven years we've advanced radiation. Seven years ago we were using a technique called 3D conformal radiation, and now we're using more and more IMRT, which is intensity modulated radiation. And it's rare now for us to see third degree burns on the skin for lung cancer. Sometimes we see a little redness on the skin, but it's rare for us to see the skin actually blister.

Andrew Schorr:

Right. And, Elaine, we have to point that out. Your radiation was again seven, eight years ago.

Ms. Dalcher:

Right. And it was after six months of chemo so I was--my system was very weak.

Proton Therapy & Lung Cancer

Andrew Schorr:

So where are we today, Dr. Bucci? First of all, I understand that M. D. Anderson has also gone--I was going to say the extra mile but it was also like the extra million miles, in that you're one of the few centers that can also do proton radiation. You'll have to help us understand what that is and how it applies to lung cancer.

Dr. Bucci:

We are the third center in the country that has high energy protons. Protons, if you remember kind of from high school physics, protons are one of the particles in the center of an atom. They're a relatively large particle with a positive charge. A regular radiation machine uses photons, which is like using--photons are a wave that has energy. So a regular radiation machine aims--radiation is kind of like using light. It's like shining a flashlight at the tumor, only it's invisible, so you can't see it. In a regular radiation machine called a linear accelerator fits in a room, and we have 18 of those here at M. D. Anderson.

A proton machine is a lot larger. A single proton machine takes up like a city block, because protons are relatively large and it takes much more energy to accelerate them, to speed them up and aim them at tumors. The main advantage of protons is that when we aim them at a tumor they get to where they're going and they don't come back out the other side. Regular radiation, also called x-ray therapy, keeps going. It's like shining a flashlight under water. It keeps going and kind of decreases as it goes through. But protons will stop.

It's a little harder in lung because lungs are made of air. So when they get to the back of the tumor they smear out a little bit through the lung. But the main advantage to proton therapy in any part of the body is that there's decreased what we call exit dose or decreased radiation behind the tumor. So we can decrease the radiation to the other lung.

Andrew Schorr:

And you all are leading the way among the few centers that have proton therapy in applying it in some cases to lung. That's not universal, right?

Dr. Bucci:

Right. We're the first ones to use protons in lung with chemotherapy. And we're very lucky to have an extensive physics staff. We have a very large number of physicists with us to do the calculations for the proton therapy in lungs. So we are the first to use protons extensively in lung.

Finding the Right Doctor to Administer Treatment

Andrew Schorr:

Let me come back to that, because I think that touches on important points. So people are listening around the world. And they say, and, Elaine, you made the trip to M. D. Anderson when you weren't sure you would get much care, I mean, palliative care maybe, but you wanted to go to where you really had a shot at hope, so you went to M. D. Anderson. And for you it made sense too, Ann.

When it comes to radiation there is an art to it, right? I mean, you have, as you said, a huge staff, and you get a lot of experience. But Dr. Bucci, just having the multimillion-dollar or hundreds of million-dollar equipment, that's a tool, right? But I imagine there's--you need a good pilot.

Dr. Bucci:

Absolutely. It's very much operator dependent. It's not the hardware or even the software so much as the person doing the directing. And there are actually a lot of people behind the scenes in radiation. For every person treated with radiation there's a team of about ten people planning the radiation. There's a physician and there's also a dosimetrist and a physicist and a therapist. There's actually quite a large team. And it very much does depend on the people doing the radiation planning.

Preventing Lung Cancer: Screening & Behaviors

Andrew Schorr:

Well, that's clear to me. And anybody who's ever been around it you realize what physics and science comes into it but potentially life saving, and it certainly made a big difference to you, Elaine.

Now, Dr. Rice, we wish we could prevent lung cancer, and just like with colon cancer where early screening can make a difference, there is such a thing as prevention. Do you want to say a word about that? Because you all are busy enough. I'm sure you'd wish that we could head off some of these lung cancer cases given that it's such a huge cancer, such a big killer.

Dr. Rice:

I'll say two words about it. Stop smoking. I mean, that is the number one thing that people can do to prevent lung cancer. 80 to 90 percent of lung cancers are caused by cigarette use. So no amount of screening is going to offset that. The biggest thing that we can do as a nation to stop lung cancer is stop smoking cigarettes. In fact, towards the turn of the 19th century-- lung cancer was considered a relatively rare disease. So it's a pretty modern phenomenon, primarily due to the huge increase in cigarette smoking this last century.

Andrew Schorr:

There are environmental factors too now. But every once in a while--and as you say it's 87 percent related to tobacco use. There's that other 13 percent. Where does that come from?

Dr. Rice:

Well, you have secondhand smoke. There are environmental causes. The next common cause apart from cigarette smoke is radon exposure which accounts for about 15- to 20,000 cases of lung cancer per year. But if you put that in comparison to cigarette smoking that causes about 160,000 cases, it's pretty low down there on the list. And there's other environmental exposures, carcinogens, asbestos, chemicals and uranium and so on.

And there are patients who develop lung cancer and we don't ever really find a predisposing factor or an etiological factor in those patients. Interestingly, lung cancer does seem to be becoming a little more common in women, particularly in women nonsmokers. I don't think we have a really good handle as to why that actually is.

Andrew Schorr:

Now, you said stop smoking. So if someone's listening, maybe there's been a lung cancer in the family and now there's a spouse or a child or a family and they say, Boy, I hope this doesn't happen to me, but I've been smoking too. If you quit smoking do your lungs recover over time so that at some point a few years out you're like everyone who hasn't smoked with a lower risk of lung cancer?

Dr. Rice:

Your lungs never, ever get back to base line. But after ten years or so of being off cigarettes your risk certainly does dramatically decrease. But those changes that the lining of the lungs received because of the cigarette smoke never goes away a hundred percent.

Andrew Schorr:

Well, as you said, don't smoke.

By the way, I want to invite our audience, if you'd like to give us a call we're on live on the internet. Give us a call at 877-711-5611, 877-711-5611. Or send us an email at patientpower@mdanderson.org, patientpower@mdanderson.org.

We're visiting with Dr. David Rice, who is a thoracic surgeon and an expert particularly in minimally invasive surgery to help people with lung cancer so they can have fewer, much smaller scale, better quality of life, and live as well as they can, as Ann Kagle has been living, and she's recovered quite well. And then we have also with us Dr. Kara Bucci, who is a radiation oncologist.

And I'll just mention, we talked for a few minutes about proton therapy, but we have a whole program on that coming up in two weeks, I believe. And that's going to have a lot more detail as proton therapy applies to a number of cancers. And with us then will be Dr. James Cox, who's head of radiation oncology at M. D. Anderson.

You're listening to Patient Power, as we continue, brought to you by M. D. Anderson Cancer Center. We'll be right back.

On previous programs we've discussed how to prevent cancer, and there's so much cancer that's prevented and stopping smoking is one of them. You know, M. D. Anderson is really committed to that. They'd rather not have you need surgery or radiation or chemotherapy, or like I had monoclonal antibodies, but not develop cancer in the first place. A number of cancers can either be detected early, like colon cancer, or prevented, in the case of the tobacco use that can lead in most cases to lung cancer.

So Dr. Bucci was saying during the break, you have a program at M. D. Anderson that can help. What's that?

Dr. Bucci:

We have a smoking cessation program that a lot of patients have had a very good success with. They can be reached by calling 792-QUIT. 792-QUIT which is--

Andrew Schorr:

So area code 713 792-QUIT. Okay. I'm going to mother-in-law to call and I have an assistant, a young woman who smokes. I say don't do it, don't do it.

Now, one of the other things I wonder about is also screening. So let's take, you know, you have x-rays we mentioned, but there's been a debate about various CT, spiral CT, I'm not even sure what that is. Dr. Bucci, you're the high-tech lady--not to put you down, Dr. Rice, I know you use a lot of technology--but Dr. Bucci, help us understand about this debate about for screening. Does that make sense, or who should have these sorts of more elaborate screening techniques?

Dr. Bucci:

That's a really good question, because that's gotten a lot of news media attention lately. And the short answer is we don't know yet. There's an ongoing trial looking at CT scans and people who are at high risk for lung cancer, which is smoking. A study that completed recently didn't answer the question. A study looked at yearly CT scans in people who had smoked for at least ten years, and the CTs picked up a lot of small nodules, but a lot of those nodules were benign in addition to some being cancers.

And the problem with finding small nodules that are benign is it subjected a lot of people to invasive procedures like biopsies that they didn't really need. And we don't yet know if it actually saves anybody's life. And the study that will actually answer that question, where half the people got screening scans, screening CT scans, and the other half got chest x-rays, won't be out for another couple of years. So so far the answer is no, no on CT screening scans for people who are at high risk.

Signs & Symptoms of Lung Cancer

Andrew Schorr:

Okay. Now I want to talk a little bit about the signs and symptoms. So Ann had no symptoms. And then there was Elaine, who was not a smoker, who had this hoarse voice and it took them a while to get there. Dr. Rice, what are the signs that people should look for, knowing that if they'd been a smoker, and Ann had been a smoker for 45 years, that this could be in the cards for them? But obviously they want to look for signs as early as possible to get the best treatment.

Dr. Rice:

Yes, this, of course, is the proposed rationale for screening in that lung cancer is often very, very silent until it actually grows big enough to start causing symptoms. To cause symptoms it has to be big enough to grow into the windpipe, to cause a cough or bleeding, or growing up into the nerve that controls the vocal cords to cause hoarseness, as I suspect Elaine's lung cancer was. So most of the time these really early stage lung cancers that are being picked up by these screening protocols are completely asymptomatic. Ann was very lucky that she happened to have a chest x-ray.

And I completely agree with what Kara said, that there is no proven benefit of screening at this point, but my gut feeling is that down the line we will probably be screening high risk individuals.

But to get back to the other symptoms, chronic cough, hoarseness of voice, coughing up blood, chest pain. Any unexplained weight loss or bone pain, wheezing, that kind of stuff. A lot of nonspecific symptoms that could be due to other things but, you know, any of those that can't be explained by other reasons, certainly you should go see your physician and probably have him do a chest x-ray if not a CT scan.

Andrew Schorr:

One thing I saw in--there's a just the facts document under lung cancer on the M. D. Anderson website, and it mentioned also fatigue, loss of appetite, weight loss, swelling in the neck, of course, that Elaine did have and the hoarseness. It mentioned clubbing of fingers. What's that about?

Dr. Rice:

Clubbing of fingers is an interesting clinical sign. Basically if you look at your fingers, any one of your fingers, from the side you will see a sort of dip where the nail bed meets the cuticle. In clubbing you get a reversal of that dip. In other words instead of dipping down it actually protrudes up. And in severe advanced clubbing the fingers could almost look like drum sticks.

The causes of clubbing really have not been ascertained. They're associated with lung cancer for sure, but also other things can cause it. But it is one of those physical signs associated with lung cancer.

Andrew Schorr:

We got an email question for Dr. Bucci from Monica in Bel Air, Texas. She writes, "I'm a 56-year-old female with lung cancer, and although I've heard radiation is a good treatment for lung cancer I'm concerned that radiation in my chest could lead to breast cancer." So help us understand that. She's worried about the lung cancer, wants the best treatment, but she sure doesn't want breast cancer too. Dr. Bucci?

Dr. Bucci:

Radiation in children for children's cancer has been shown to lead to breast cancer when they grow up. Radiation in adults, especially for something like lung cancer, has not been shown to cause cancer later. Radiation for women with breast cancer, because we have a lot of follow up on them, can cause secondary cancers, but the risk of that is very minimal. Some estimates are as low as one in a thousand. So the benefit of getting radiation vastly outweighs the risk of getting a second cancer.

Andrew Schorr:

Okay. Good answer. And then Jessica wrote again from Houston. She said, I have a friend that has never smoked and she has lung cancer. And I think you spoke about this, Dr. Rice. So she developed cancer. So if you work in a restaurant and now we've been passing these laws to have people smoke outside, but was it likely that it was from secondhand smoke perhaps? You mentioned radon as well.

Dr. Rice:

It's possible, but as I said for an unknown reason more women are presenting with lung cancer who were nonsmokers. So her friend may be one of these women. Oftentimes we never know precisely obviously what caused a lung cancer. There's a lot of things we know predispose one to lung cancer, but in a given individual it's hard to say that, you know, this cancer developed for this reason.

Andrew Schorr:

Another question. In some cancers they're doing some work using blood tests, looking for tumor markers. Does that come up in lung cancer, where a blood test might give you some indication whether someone has lung cancer?

Dr. Rice:

Really not. We're not at that stage yet, unfortunately, for lung cancer. In fact, it's very, very few tumors that blood tests are useful for. Prostate is about the only one that I can think of off the top of my head where we have a good blood test marker that if it's elevated it's a reasonably good sign that you might have prostate cancer. But we don't, unfortunately, have anything for lung cancer yet.

Lung Cancer Treatment: A Multidisciplinary Approach

Andrew Schorr:

Now, I get the impression listening to the two of you, a surgeon and a radiation oncologist, and then imagining, Dr. Bucci was just talking about the physicist and all the people back in the radiation oncology department that make things happen, that really there's a coordination of care in lung cancer, that people may need surgery, they may need chemo, they may need radiation. It could be all three or a combination of different ones.

So, Dr. Bucci, it takes a team. And it sounds like you work really hard about that at M. D. Anderson.

Dr. Bucci:

Absolutely. And I would advise anyone in the community who has cancer that they be seen at a cancer center that has a multidisciplinary team. That any oncologist that they see present their case at a tumor board that has at least a surgeon and a radiation oncologist and a medical oncologist, so they have a multidisciplinary approach. We do work very closely as a team, and that is crucial.

Andrew Schorr:

I would think so. I always put in my little story here. Because, again, I live in Seattle. Elaine you live in Grand Rapids. Neither place is anywhere near Houston, Texas. In my case I just wasn't familiar with M. D. Anderson because I didn't have cancer on my mind at age 46, and I was diagnosed with chronic lymphocytic leukemia. Wasn't really sure what leukemia was, and I definitely didn't know what CLL was. So I was terrified

But as I learned I found out that, in my case, that M. D. Anderson had the largest leukemia department in the world, and in so many of these other areas and in the area we're talking about now, the lung cancer multidisciplinary team, that provided some advantage. For Elaine it was clear you needed to go to a place like that, right?

Ms. Dalcher:

Correct.

Andrew Schorr:

So it wasn't just you saying that. It sounds like you had a passel of friends who said, Elaine, we're going.

Ms. Dalcher:

Yeah, right. Exactly

Andrew Schorr:

And you're glad you did, obviously.

Ms. Dalcher:

Oh, I'm very glad I did.

Andrew Schorr:

Do you think, you wonder whether it could have worked out as well somewhere else.

Ms. Dalcher:

I think it definitely could not have, in my case.

Andrew Schorr:

Well, I hope you give your doctors a big hug when you see them from time to time.

Ms. Dalcher:

Oh, many. They've already received many.

Andrew Schorr:

Okay. Well, I'm glad to hear that.

Now, Dr. Rice, so people worry about lung cancer. It's such a serious diagnosis, but it sounds like going to a place like M. D. Anderson can truly bring hope they might not have somewhere else.

Dr. Rice:

Well, I think, you know, to get back to your last point about the multidisciplinary efforts, usually every patient that has lung cancer that's seen at Anderson, is discussed in the context of a multidisciplinary meeting where there are many radiation oncologists and six or seven thoracic surgeons and up to 18 medical oncologists. So you've got this tremendous coming together of minds really to sort of focus on the best treatment to give for an individual patients. So that kind of global care really doesn't happen I think in many centers.

In addition we also are obviously a leading research institute, so there's an awful lot of state of the art techniques such as the minimally invasive techniques which we're working on here. Novel therapeutics, such as the targeted therapies. Trials with new types of radiation - you've heard of the proton beam, for example. So I think that the combined expertise of the center plus the research that goes on here really offers hope to an awful lot of patients.

Andrew Schorr:

You made a comment about targeted therapy, and I know you're not a medical oncologist, neither you nor Dr. Bucci, but that's a member of the team and you work with them. So just as far as an overview, there's been progress there too in new therapies to help people live better and live longer from the point of view of these sort of chemical therapies, biologics and being used with chemotherapies. Am I right there?

Dr. Rice:

Yes. Definitely. We're getting much more clever with our treatment of lung cancer. You know, before--well, to a degree still today even, most chemotherapy relies on agents that interrupts the division of the cells by interrupting DNA. But that's sort of a blunderbuss approach, if you like. And really what we're trying to do now is focus on the molecular and genetic mechanisms of lung cancer.

And it turns out there are many, many intracellular pathways that are involved in the creation of a cancer cell, and if we can find out specific pathways that are critical for the cancer cell to survive, we can actually specifically target those pathways and inhibit them. The benefit, of course, of that is that the potential for more specific cancer therapy is there, which will presumably limit the toxicity to other normal cells.

Andrew Schorr:

Okay. That's one point, when I listen to all this and when I listen to you, Dr. Bucci, the other experts we've interviewed on Patient Power on mdanderson.org, I realize

you all are devoting your lives to this in treatment of folks like Elaine and Ann and others who come from around the world. And then you're also doing a lot of research. And we're all working together as part of a community, so those clinical trials are important and certainly in lung cancer where we have a great story of Ann and Elaine, and they're doing so well. Who knew, you know? And hopefully that is you, if you've been diagnosed.

But you may want to consider being part of clinical trials and helping advance the knowledge of what might work for you and help others too.

We're going to be back for more of our discussion of lung cancer and advances in it when we continue on Patient Power, brought to you by M. D. Anderson Cancer Center.

Andrew Schorr:

I invite you to take a look at all the replays we have in the Patient Power section of mdanderson.org. Just mdanderson.org/patientpower. Tell your friends. Now, you're obviously concerned about lung cancer, but we've done programs on advances in pediatric cancer. There have been advances even now, the use at M. D. Anderson of that proton therapy we were talking about, and you'll hear a young woman where she feels it made a big difference for her. Also we've got programs on complementary or integrative therapy, and we have a leading expert from M. D. Anderson who's discussed that. And then coming up again in two weeks we're going to learn a lot more about proton therapy, because certainly it helps in other cancers too.

But as we continue with Dr. David Rice, who's a thoracic and cardiovascular surgeon at M. D. Anderson, and also Dr. Kara Bucci who is a radiation oncologist, and our guest survivor patients and delighted they're here, Ann Kagle and also Elaine Dalcher.

Now, part of what we discussed a minute ago is how there's a team approach. And typically somebody might have surgery for lung cancer but increasingly there's a benefit for chemotherapy as well, right, Dr. Rice?

Dr. Rice:

That's correct, Andrew. In fact the traditional wisdom of course for years, even when I was training, was that chemotherapy after surgery really hadn't shown any benefit. But that was really done based on the results of a lot of small trials. And what we're finding, actually, with bigger, larger cooperative clinical trials that have been completed recently is that actually if you add chemotherapy after an operation for lung cancer of stage II or stage III that a certain number of patients are actually benefited by that addition of chemotherapy. So there have been at least three positive trials now in the last five or six years that have--that have sort of shown that to be true.

Andrew Schorr:

Now, you know, Ann Kagle, as I said was a nurse for 45 years. She's still a nurse but was active in nursing. So, Ann, a couple of comments from you, because you're a healthcare provider too and then you lived through this diagnosis of lung cancer, but you had an experience to see what M. D. Anderson was like, the nursing care, the multidisciplinary team. And I'm sure you were evaluating it pretty critically. What's your view of it? Because healthcare has changed a lot. Do you feel you got good quality care? And also when you listen to these doctors when it comes to lung cancer do you think that may really provide the leading edge view of future care?

Ann:

Okay. Well, I certainly from the day I--first day I walked in there you feel a feeling of real comfort. Everybody is really helpful. And also viewing other patients going around. And the openness, the honesty about the problem. But also the--all the views that are presented. You've learned to understand exactly what's going on with yourself. And postoperatively, you know, I'm an old style nurse where we give lots of patient care, and I hadn't seen that type of care being given very often, and in M. D. Anderson I certainly was on the receiving end, and it was very wonderful

Andrew Schorr:

And you're a good judge. You're a good judge.

Ann:

But also seeing the difference between, although I wasn't real closely involved with oncology, but through my nursing career all types of patients were mixed together. And what's being done now is remarkable. I'm just wow, you know. So programs like this are helpful. Tonight's been good for me, and I thank you.

Advice from a Patient About Seeking Treatment

Andrew Schorr:

Well, thank you for being with us too. And we wish you and your husband, Joe, well. Here are two examples where in a sense, and it was flukey for you, but early screening made a huge difference. And of course when we talk about so many cancers early detection is what it's about. So you've been married 50 years now. I want to wish you all the best.

Let's go back up to Grand Rapids, Elaine. So what would you say, there's people living maybe at a great distance who've been diagnosed with lung cancer or a loved one has. And they think well, gee, maybe I don't have to go that far. Maybe they didn't get quite the story that you got, well, put your affairs in order, you've got six months or less to live. And there may be people saying, you know, we can help you at the local hospital but, yes, you have advanced lung cancer. What would you say to them? Because you got on a plane and you made the trip, and you lived for a year in Houston to go through that therapy.

Ms. Dalcher:

I did. I'd say if you can financially swing it, I mean, because we have to deal with stuff like what our insurance carriers cover and this kind of thing.

Andrew Schorr:

Sure.

Ms. Dalcher:

And I was lucky on that account. But I would say definitely get a second opinion or a third and make the best choice that you can at the time. Of course, I had a great experience with M. D. Anderson, and I would certainly suggest it to anyone who asked. And I do often because a lot of people call me who have been diagnosed and want to hear a positive story.

Andrew Schorr:

Well, it's very inspiring, Elaine. I would say that too, though, is that when you're diagnosed with any cancer, certainly whether it's my leukemia or a lung cancer, lung cancer for sure, very serious diagnosis. It's a big wake-up call in your life. You want to come out the other side. You want to live as well as you can. So you mentioned it, Elaine, and that is it may not be that you're moving to Houston for a year, it may be that you're seeing one of the experts there for a second opinion and perhaps your treatment is going to be back where you live. But you want to dive into that knowledge base and get that evaluation. I think it's very worthwhile.

Ms. Dalcher:

Absolutely.

Andrew Schorr:

And one thing I wanted to take just a minute with with Dr. Bucci is, Dr. Bucci, no matter how long somebody is able to live with lung cancer, and we hope it can be a long time, trying to make progress there, it's also about how well you live. So the hope is that we can make cancer, even lung cancer, wouldn't that be great, be chronic, right, and where you can just live well?

Dr. Bucci:

Yeah, thank you for bringing that up. There's definitely a focus on quality of life. And the way cancer is thought of has changed a lot. Years ago people were scared of the word cancer. And patients who really are stage four, patients that we can't cure, cancer can be treated chronically. It's definitely a diagnosis that people can live with, that we can treat chronically over a period of time and people can live well.

Andrew Schorr:

Well, we've heard about it a lot today, with the targeted radiation that you're doing, with the minimally invasive surgery that Dr. Rice is doing, with the targeted

chemotherapy that's happening, can all make a difference. And so, again, the name of this program is Patient Power, and so it's important for you as a patient, as a family member, to really get smart about this. Get a second opinion. Go around, ask questions.

And also know that things are changing. So as we saw with Elaine, she had some side effects from radiation that are very uncommon now. There are changes in the way surgery is done that's not done on every corner. So it's important to get smart. Hopefully today's program is a help to you. Tell your friends, listen to the replay, look at the transcript. If you can, be back in two weeks when we talk more about proton therapy which is so unique at M. D. Anderson and making a difference in many cancers.

As always, I believe that knowledge can be some of the best medicine of all. Thanks for joining us. I'm Andrew Schorr. Thank you for listening to Patient Power, brought to you by M. D. Anderson Cancer Center. All the best to our guests. All the best to you.

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.