

Surgical Treatment of Lung Cancer
Webcast
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Dr. Matthew Blum

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Andrew:

And welcome back to another edition of Patient Power. That's what we believe in; being smarter patients so we can get the best care. Certainly worked for me as a cancer survivor, and I know it's the right thing for you. That's what we're devoted to with Northwestern Memorial Hospital, doing this every two weeks. And so I'm very excited today.

We're going to talk about one of the most--well, all cancers are serious, but it's been one of the most--the toughest ones, really, because it's often caught so late, and that is lung cancer. And we're going to talk about the surgical treatment of lung cancer, and Northwestern Memorial has been helping lead the way and you're going to hear about that. But these illnesses happen to real people, people like you and me. And I want you to meet a 20-year sixth-grade school teacher who live Hinsdale, Illinois on the western suburbs but teaches in the inner city, Sharon Leonard. Sharon is 59 and last year for about a year was not feeling well.

Sharon, you went to your local doctor time and time again just saying you didn't feel right, right?

Ms. Leonard:

Right. And they kept saying, well, we don't know what's wrong with you.

Andrew:

And so you are someone who raised four kids, you have four grandkids. I know you have two others on the way. You weren't one who would go to the doctor easily, so when you decided you were taking yourself to the doctor you just really weren't feeling well, and it must have been unnerving that there was not a clear cause that anybody seemed to tell you about.

Ms. Leonard:

Right. And I was very frustrated with it because I'm not a complainer and I didn't know why I didn't feel well.

Andrew:

So you go back and back. And I understand along the way besides having some chest x-rays you did have two bouts of pneumonia?

Ms. Leonard:

Yes, within a one-year time frame. I had two bouts of pneumonia, and they did x-rays before, they did x-rays after to be sure I was over the pneumonia, and they just said, Well, just keep taking your medication. I was on Z Pak, different antibiotics.

Andrew:

Antibiotics. So then last August you're kind of getting disgusted because you're not feeling well. You go back again. What happened that time?

Ms. Leonard:

And I went back and they did an x-ray, and they called me like two days later and said you need to get a CAT scan.

Andrew:

You weren't told why. But you needed a CAT scan.

Ms. Leonard:

And I went to get the CAT scan and I stopped for breakfast and came home, and they were on the phone already.

Andrew:

And they said what?

Ms. Leonard:

They said you need to see a pulmonologist.

Andrew:

Okay. So it was kind of accelerating. Now, you had been there this for a year, so when they said now we want you to go to a lung specialist, what did you decide to do?

Ms. Leonard:

I decided--I wasn't going to play around in the suburbs, and I decided I wanted to go to one of the best hospitals. So I decided I was either going to go to Northwestern or I was going to go down to Anderson down in Texas or something like that. But I didn't want to travel far because my family lives here.

Andrew:

So there you are. You had one of the best university medical centers downtown, so was it more of a drive than the care you were getting in the suburbs but it sounded like you didn't want to mess around any more.

Ms. Leonard:

Oh, no. And then when you hear the words that--I mean, the doctor called and said they think they saw something, they think you might have lung cancer.

Andrew:

It's terrifying.

Ms. Leonard:

I mean, your life from that moment on has changed forever.

Andrew:

So you went to Northwestern shortly after that in mid September saw a pulmonologist there. What happened?

Ms. Leonard:

And she ordered a PET scan, which is a radioactive scan, and she said if you have cancer cells that they light up. And then she said that mine lit up a little bit but it wasn't definitive and she wasn't sure. But she said I want you to see a surgeon. And I said, all right, do you have anyone here? And I said I need to see someone right now. And I was downtown and I didn't want to leave until I saw someone. And then she called Dr. Blum's nurse. And she said, He's in surgery right now, but when he's done he might be able to see you. And I said, I will come and sit there all day.

Andrew:

Yes. I imagine when you have a diagnosis you want to get it handled.

Ms. Leonard:

Immediately.

Andrew:

So you're very worried, of course. So you did see Dr. Blum, who I should mention we're going to meet in a minute. And what happened?

Ms. Leonard:

And he was great and he was very confident, and he put me at ease right away even though all you can think of is cancer cancer cancer. I liked him immediately, and I felt that he knew what he was talking about. I brought my x-rays, I brought my lung windows from my CAT scan and any other info that they asked for because I knew I was seeing a pulmonologist.

And he looked at everything and he said, Well, it's hard to tell what it is, but he said, It might be a fungus or it could be lung cancer. And he explained options to me, and I said I want it out. Then he explained a surgical VATS, V-A-T-S, which

stands for video assisted thoracic surgery. And that's when they go in with a camera. They punch a little hole in you.

Andrew:

Right. Now, I should mention that when you brought your records from the suburbs to Northwestern you actually looked through them, and you made a discovery, didn't you? What was that?

Ms. Leonard:

I made a discovery. I had the hard copy, the written copy of my x-rays and I'd never had those before. And I read those, and it said that this spot had been on my lung for a year. And no one ever told me. So I was extremely angry with these doctors out here. I was frantic.

Andrew:

Well, you got to Northwestern and so you see Dr. Blum. And you were scheduled for that VATS or video assisted thoracic surgery, which we'll learn about during today's program and see where that fits in. And so they take a biopsy, right, during that? So you're still in the operating room. What did the biopsy show?

Ms. Leonard:

Lung cancer.

Andrew:

It was not a fungus but it was lung cancer. So then of course, then you have kind of a bigger surgery right then...

Ms. Leonard:

Right then and there.

Andrew:

Which you had authorized.

Ms. Leonard:

I had signed away, yeah, just in case.

Andrew:

So part of your lung, upper right lobe was removed?

Ms. Leonard:

Yes, it was.

Andrew:

So there you are in the hospital. How long did it take to recover, Sharon?

Ms. Leonard:

I had the surgery on a Monday, and I came home on a Thursday.

Andrew:

How were you feeling by Thursday?

Ms. Leonard:

On Tuesday I was not feeling well. By Wednesday I knew I wanted to go home. And I was a thousand times better by Wednesday.

Andrew:

That's good.

Ms. Leonard:

But, you know, it was a major surgery so I was just from the anesthesia and I was on pain killers. I was just kind of wiped out for a day but then I felt much better.

Andrew:

Okay. Sharon, you went back to Hinsdale. Have you had any other treatment since then?

Ms. Leonard:

None. I was stage I, Andrew. There are four stages and I was stage I.

Andrew:

We're going to learn more about that too. You were very fortunate.

Ms. Leonard:

Extremely.

Andrew:

And so you go back to Dr. Blum how often and what happens for follow-up?

Ms. Leonard:

Every three to four months. Every three to four months. One time it's a CAT scan, the next time it's a chest x-ray. Then it's a CAT scan, and then it's a chest x-ray.

Andrew:

And everything is still looking good.

Ms. Leonard:

Everything is looking great. So I'm thrilled.

Andrew:

You were looking forward to school being out in a few days.

Ms. Leonard:

Oh, yeah.

Andrew:

You've been back to teaching, of course. And I can't imagine teaching sixth grade, it's got to be tough. I know I've got some teenagers myself, and it keeps you busy those preteens, and teenagers.

Ms. Leonard:

Very busy.

Andrew:

And then two other things about you. One is I know you volunteer with Gilda's Club to help other patients, and I think that's great, and helping them with information. Hopefully some of the Gilda's Club people are listening tonight.

But you're going down to New Orleans this summer to help rebuild schools damaged by hurricane Katrina. Good for you.

Ms. Leonard:

Well, I probably wouldn't have done it but now I want to do it just because I feel so lucky to be here.

Andrew:

Right. And you're breathing well.

Ms. Leonard:

Yes. I breathe fine. And I work on the third floor.

Andrew:

We should mention that you didn't feel well for a year, and now?

Ms. Leonard:

Now, I feel wonderful. Well, that's the best news of all.

Ms. Leonard:

I feel great.

Andrew:

Well, let's meet a man who played a role in that, and that's Dr. Matthew Blum. Dr. Blum is actually the section head of general thoracic surgery at Northwestern Memorial Hospital. He's also a member of the National Comprehensive Cancer Network designated Robert H. Lurie Comprehensive Cancer Center of Northwestern, which, by the way, is the only NCI, National Cancer Institute designated cancer

center in all of Illinois. He's also head of the multidisciplinary thoracic malignancies group at Northwestern Memorial. We're going to find out how that works and how that presents advantages for you the patient. And he's an assistant professor at Northwestern University's Feinberg School of Medicine.

Dr. Blum, when you hear Sharon's story and that she's doing so well, it must be very gratifying.

Dr. Blum:

Well, it certainly is. And I think that's more the rule than the exception for very early stage lung cancers like hers. The story that led up to its removal also is not unusual. It's certainly nice to be able to find an answer that gets to the bottom of things before somebody has a major problem.

Andrew:

Let's talk about lung cancer. Obviously, it is often, maybe usually, not discovered early. So what's the impact of that in America as far as mortality?

Dr. Blum:

Well, lung cancer is the leading cause of cancer death in the country. There are more women with breast cancer, but there are more women who die with lung cancer. And there are more men with prostate cancer, but it moves so slowly that a lot of those people live with it for a long time and don't die from it but die with it. So lung cancer is also the leading cause of cancer death in men.

It's a huge problem. One of the major issues is that there is screening for colon cancer, there is screening for prostate cancer, there is screening for breast cancer, but we're just now trying to figure out what the best screening for lung cancer is so that we can find it early. Sharon, in some ways was fortunate that she didn't feel well and that she'd had these pneumonias so that somebody had been taking these x-rays and taking a look. But most patients that have lung cancer don't even know it until it's extremely late. And so there's not been a good screening test to really pick that up early.

Andrew:

Let's clarify one thing. Certainly we know that if people didn't smoke we'd lower our rate of lung cancer, but there are people who don't smoke who develop lung cancer too. Do we know why?

Dr. Blum:

We don't really know why but the patients that tend to develop that lung cancer who are not smokers are frequently older patients, oftentimes they're women, and it's unclear what all is involved in that. But age and maybe sex has a little bit to do

with that. By and large most people who develop lung cancer are smokers, but there's still maybe 20 percent of the patients I see are never smokers or had very light or minimal exposure.

Andrew:

Right. And, of course, that was the story of Christopher Reeve's wife, Dana, where that was very much in the news that she was not a smoker but died of lung cancer.

So it's usually there's not a clue, it develops and then it's late. Now, just in the minute or so we have before we take a break, there's been some thought about whether some people at high risk, maybe heavy smokers, should have I think what you call a spiral CT exam. What's the thought about that right now?

Dr. Blum:

Well, that's still under study. There have been a couple of big trials that have been done, and we're trying to look at the long-term results of those. The problem isn't that they don't pick up lung cancers, the problem is that they pick up a lot of things that are not lung cancer. So people that go for those studies may come back with a result of, Well, there's a nodule that's indeterminate, we don't know what it is, and go through a lot of procedures to try and diagnose it, and it ultimately turns out to be something benign.

Andrew:

Now, if you would like to request an appointment with Dr. Blum or the other experts there, just look at nmh.org. I'm Andrew Schorr. Stay tuned for more Patient Power on HealthNet, brought to you by Northwestern Memorial Hospital.

Welcome back to Patient Power. Andrew Schorr here tonight on this live webcast with Sharon Leonard, who joins us from Hinsdale. And thank you so much for being with us, Sharon. And also we have Dr. Matthew Blum who is a thoracic surgeon at Northwestern who's really Sharon's doctor. And we're going to hear more about how that's worked out and the various procedures he did to help her. We're discussing surgical approaches to lung cancer.

And Sharon, you made a point that I always underscore with Patient Power, you know, lung cancer--or for me it was leukemia--it is a really serious diagnosis. And so although, sure, there are doctors, cancer specialists in the suburbs and at the hospital down the street and the clinic who have knowledge of it. It's unfortunately all too common in the case of lung cancer, less in the case of my leukemia. And so, yes, they're knowledgeable, but the question is what's the right approach for you? Certainly a large what we call academic medical center like Northwestern, with one of the leading cancer centers in the country, they're pretty well plugged in to the latest.

And so I would say at least, and Sharon I'm sure you would agree, I think it makes sense to get a second opinion as you decide what's right for you. What do you think, Sharon?

Ms. Leonard:

I thought I wanted a second opinion but I had a pulmonologist and she said I think you should see a surgeon. And she wasn't really sure either if I had cancer or not because it wasn't definitive, as I said. So I then I went to Dr. Blum, and once I met him I didn't feel I needed to see anyone else.

Andrew:

But you'd already gone to the University Medical Center. But I guess the point I would make, if you're not at that level you might want to at least check in with these sort of professors. Dr. Blum is an assistant professor at the Feinberg School of Medicine, so you can imagine the research they're doing and the correspondence they're having with other leading centers. So that's really important.

Now, Dr. Blum, we were talking before the break about CT scans for maybe people at higher risk. So let's say you're married to somebody who's been a two-pack-a-day smoker, and you say I've been around it, been breathing it all this time--or even the smoker themselves--would they be maybe in a clinical trial where they'd be checked out that way, or should they have x-rays more often if they have a cough that won't go away. I mean, how sensitive should they be to try to catch it early?

Dr. Blum:

Well, for somebody who's exposed to secondhand smoke their risk of lung cancer is probably slightly elevated, but it's nowhere near as much as for smokers themselves--even if they were working in a bar or someplace like that, we don't have great numbers on how much that increases your chance of lung cancer. In general that probably is not huge--your genetics or family history, have more influence on it.

But for patients that are very heavy smokers, about a pack per day and over 50 years old, those are the patients that are probably at highest risk for developing lung cancers. A lot of smokers even when they're continuing to smoke will have changes in morning cough. But if that's changing, it's getting severe, worse, they're having a lot of fevers, they're having increase in severity of their bronchitis, or constant pneumonias, those are the people that should be looked at more closely for the possibility that there's an underlying lung cancer that's changing their picture.

And the question about whether or not to screen those patients is not yet settled. We're still awaiting the results of those CT scan trials, and the biggest problem is that if you do get a scan, the patients that should get them in are the ones that are

heavy smokers who are over 50. For patients that are getting those scans or are interested in that, they should be prepared to hear there's something there, we don't know what it is. And there may be a number of different ways of dealing with that. It may be biopsy. It may be just following it. It may be doing additional studies. And it may come out to be benign.

At this point we don't have any better test than CT scan for screening, and it's not at this point recommended for everyone. But if you had to get something that's what I'd recommend.

Andrew:

Dr. Blum, so there's somebody where you decide that you need to sort of go inside there. Now with Sharon, video assisted thoracic surgery what is that?

Dr. Blum:

Basically, that's similar to laparoscopic surgery or other operations where you use a very small camera that looks through a scope, usually through a small incision, and you usually have to make a couple of other incisions so you can use instruments to help maneuver the lung around so you can see what you're looking for. And you actually can feel, just with a finger usually, through one of those small holes. You can feel the surface of the lung, and then you look and feel for a nodule that would be seen on a CT scan so you would have some idea where you're looking.

And then typically it's a form of both biopsy for diagnosis, and in some cases a curative surgical operation for lung cancer. During the first part of Sharon's operation, we looked in with a scope, found the nodule, removed just the nodule with a small amount of surrounding tissue, sent that to pathology and had them take a look at it under the microscope. While she was still asleep the pathology returned as a lung cancer. So we went on to complete a formal lung cancer operation called a lobectomy still using just the scope and a couple small incisions.

Andrew:

Now, the question that comes up, and we got this from one of our listeners, is this so-called minimally invasive lung surgery, who's a candidate for that? How do you know?

Dr. Blum:

Well, it's somewhat experience related, and the more we've done that the more we've used it for other patients. So the major determinant about who is a candidate for that is really your surgeon and whether or not he or she can safely complete the operation that they're contemplating. But at this point unless it's going to be a very complicated resection where you have to remove pieces of rib or you have to do some extensive reconstruction, most patients we'll actually try to do a minimally invasive operation, and then if we can't complete it safely we can always convert to an open operation.

Andrew:

Just say to our listeners, by the way, if you'd like to join the discussion and ask a question of Dr. Blum or Sharon Leonard, experienced patient, just give us a call at 877-711-5611, 877-711-5611. You can also send us an email at NMH, like Northwestern Memorial Hospital, at patientpower.info, nmh@patientpower.info.

So, Dr. Blum, when you can you want to do that minimally invasive surgery. In Sharon's case because I guess it was so small then there was not a need for chemotherapy or other follow-up?

Dr. Blum:

That's correct. Lung cancer, like most other cancers of the body are staged using a number of criteria. And basically what the staging does is it helps us figure out, well, what are the common features of one cancer to the next in each different patient. So we can talk to each other and say, well, that's a stage I lung cancer, and then we immediately know that's going to be a small nodule, it's going to be surrounded by lung tissue, there's going to be no lymph nodes involved, and based on that kind of categorization we can decide what treatments are most appropriate.

For early stage lung cancers, stage I or stage II lung cancer, those patients are typically offered surgery first. And for stage I, particularly the earliest stage, I A cancers, those--surgery alone is usually curative. The more advanced stage tumors, the I B through stage II, will be treated with surgery followed by chemotherapy.

The even more advanced stage cancers, stage III and stage IV, are often treated with chemotherapy and radiation or chemotherapy and radiation and surgery or just chemotherapy alone or sometimes chemotherapy and surgery. So those III and IV patients end up with a very complex set of decisions. The common feature for almost all of those except for the very earliest stage cancers are that they require a coordinated effort amongst several different physicians having to recognize what the strengths and weaknesses of each treatment modality are so that you can really select the appropriate treatment for each patient.

Andrew:

We're going to talk more about that in just a minute. I've heard the term neoadjuvant therapy. What does that mean, and where does that come into play today in lung cancer?

Dr. Blum:

Neoadjuvant therapy refers to therapy that's given prior to surgery. So the neoadjuvant concept is giving either chemotherapy or chemotherapy and radiation prior to operation. That's as opposed to adjuvant therapy, which is given after surgery.

Neoadjuvant therapy is used primarily in patients with stage III lung cancers. The reasons to choose that approach and which patients should get neoadjuvant therapy are often institutionally dependent and it is not completely standardized. It oftentimes includes chemotherapy and radiation followed by surgery, and usually operation in those patients is more complex.

Andrew:

And the idea is to shrink the tumor and then when you cut it out it's a smaller area. Is that the idea?

Dr. Blum:

That's part of the idea for some cancers. The other reason to treat somebody with neoadjuvant therapy is that patients who get oftentimes have more advanced stage cancers. They often die of distant metastatic disease beyond what is removed with surgery. So what you want to prove in that case is that you have therapy that's effective at treating the distant metastatic disease, not necessarily the disease that's within the lung, but the small cells that may be elsewhere, in the liver, bone or the adrenal glands for example, that may be too few to see at this point, but those are the cells that end up causing problems down the road.

So if you give chemotherapy, you have the main tumor in place, you can see if that main tumor shrinks. If it does then you can presume that the chemotherapy has also been effective at treating metastatic disease that would be elsewhere and then it makes sense to try to remove the main tumor mass. Because chemotherapy oftentimes won't treat that completely. So that's why we use the combination.

Andrew:

Now Sharon mentioned she saw the pulmonologist and then pretty quickly she was seeing you, the surgeon. One of your titles is head of the multidisciplinary thoracic malignancy group at Northwestern Memorial. And you were kind of referring to that. You were saying except for maybe the earliest cancers there's a whole team. And I imagine it's pulmonologist, surgeons such as yourself, medical oncologists, let's see, radiation oncologists, radiologists. What am I leaving out? I know you have quite a team there.

Dr. Blum:

Well, that's the majority of that group. Even primary care physicians know that our group is functioning, and if they have a case where they're not sure what a nodule is they bring them to our conference. A lot of times the oncologists will bring cases in which they are unsure of exactly what's the best way handle a chest malignancy or nodule. For example, whether it's surgically approachable for a biopsy or resection. We get together every week with that whole group of people. And we

have dedicated chest radiologists who can oftentimes shed some light on what the suspicious-looking features of a nodule or a particular mass might be and help develop a treatment plan or a diagnostic plan for those patients.

Oftentimes we'll say well that's better diagnosed with bronchoscopy, and one of the pulmonologists there will say, Yes, I can get to that. Why don't I try to diagnose it that way as opposed to doing some sort of a surgical biopsy first. And other times we say that really looks suspicious. That should come out. That should go straight to surgery and not mess around with other diagnostic tests.

Andrew:

Well, I think the important point for our listeners--and, Sharon, I'm sure you believe in this too--is here at Northwestern at a major cancer center you have a whole multidisciplinary team and your whole devotion is to lung cancer or maybe some nonmalignant tumors as well that you're taking a look at, the chest. But that's all you do. For me, I think that's a good thing. That's who I'd want considering my case.

We have a lot more to talk about as we learn more about the surgical approaches to lung cancer and some of the advances and where it's headed. It's all coming your way as we continue on Patient Power, brought to you by Northwestern Memorial Hospital.

Welcome back to Patient Power. Isn't it great, Sharon was at very early stage and could have just really surgery with a laparoscope and that's it and now be followed closely and go back to her life. Dr. Blum, it's not always that way because it's often not caught at that early. But what can people expect, let's say, post surgery? Often you have to do or sometimes you have to do a more extensive surgery. Sharon was just in the hospital three and a half days. What's the recovery like, and then what can people look for as they go on? I know it varies greatly, but maybe help us understand how surgery can help delay the onset of the disease moving forward. Just help us understand what to expect after surgery.

Dr. Blum:

Well, in general if you're operating on patients for lung cancer you're usually shooting for cure. With chemotherapy and radiation, very often success is measured by how much longer a patient lives or how much their quality of life improves. But if you're going in for surgery for lung cancer it's generally with the idea that you're going to hopefully cure the patient.

Most patients that are going in for surgery get a lobectomy, where you remove one lobe of the lung. Those patients are typically in the hospital with a minimally invasive approach of somewhere between two days to four days. Occasionally

someone will be in the hospital as long as seven. With an open operation very few people get home even before three days, so it's usually between three and seven days.

The recover period afterwards is generally around four to six weeks, and it varies by what kind of condition somebody is in when they come in to the operation, what their lung function is like and what has to be done at the time of surgery.

Unless a patient has severely compromised with their lung function, most get back to their regular levels of activity. I had a patient who was a marathon runner who actually got back to running marathons. He was a little bit slower than he had been but he got back to that after a lobectomy.

Andrew:

Okay. And Sharon, tell us your experience. So you were raring to going three and a half days you got out of the hospital. Tell us about your recovery and how soon you could get back to teaching.

Ms. Leonard:

I really could have gone back to teaching after two weeks but I could have gone back to teaching much earlier, but I was tired. That's the only thing that I can say is that I was tired. And I think it's just from having a major operation that I was tired. But I felt bad--I had surgery on a Monday, and Tuesday I felt bad. Wednesday I knew that I had to get up and walk around. I mean, I was walking on Tuesday but I knew I had to move to get out of there.

And once I got home, I never stopped. And I just kept walking because I didn't want to get a pneumonia or anything, because that's what they kept coming in to tell me. You have to walk. You have to do this. And, I mean, I never felt better then. Truly. I never felt better. And I was just so lucky to be alive, and I felt that I was so fortunate that I was still, could be there.

Andrew:

Yes, you were. Now, I didn't ask you, Sharon. Were you a smoker?

Ms. Leonard:

Yes, I was. For years. I loved to smoke.

Andrew:

How long were you a smoker?

Ms. Leonard:

Probably about 40 years. I know. I mean, I didn't smoke that much. I was more of a social smoker but if I went you out, I would love to do it. I mean, where I worked I couldn't smoke or anything like that, but I did like to smoke.

Andrew:

One of the things I wondered about, Dr. Blum, is, now, if somebody smoked like for many years and then they quit--like my mother-in-law when I got married 22 years ago her wedding presents to us was quitting smoking. And she chewed nicotine gum like her jaw was going to fall out. She did everything she could to stop smoking, and she did. So what can someone who stops smoking feel about their risk of lung cancer? Have they decreased it? Does it decrease over time? Do the lungs heal? Tell us about that.

Dr. Blum:

Well, it does decrease over time somewhat. Basically, if you imagine, as people smoke their risk of lung cancer goes up and up and up and up, and if they continue to smoke it continues to climb. Once somebody stops smoking it begins to sort of plateau and level off. It never goes back to baseline. It never goes back to as if they had never smoked, but it does go down somewhat. And at that point you're making decisions day by day. You can't look back and say, well, I want to take back the last 20 years. You have to say, I'm going to stop today and I know my risk is going to be lower in the future than it will be if I continue to smoke. And that's pretty much the decision you have to make there. But it doesn't get back to where it would have been if you'd never smoked.

Andrew:

But I think most physicians would say if you're a smoker, stop, and for many health reasons, not just this one of course.

Now, another question for you. Somebody might say, you know, well, they found a little spot but, you know what, I'm afraid of surgery so even if it's early they might say, well, Doc, what if I don't have surgery? Can I just let this lie. And you did say earlier there are cases when you just watch it. So help us understand that discussion you might have with someone.

Dr. Blum:

Well, this is actually an issue that's increasing in frequency because patients are now getting CT scans for so many things. CT scan is easily available in almost all hospitals, and it's almost as easy as getting a chest x-ray. So for numerous problems patients will get CT scans, and for something that was totally unrelated they may pick up a lung nodule. Often these nodules are quite small. They're in the two to three millimeter range or four millimeter. We're still at a stage where we're trying to figure out which ones of these things are important, how long to follow them, how likely are they to be lung cancers and so forth.

So at this point for patients who don't want to undergo surgery or who have a nodule in a place where it's very difficult to biopsy or impossible to biopsy or remove or for those that seem to be of low suspicion for cancer, those patients

undergo follow-up CT scanning and assessment of that nodule. If it's growing, then that's a pretty good indicator that that's not something that's totally benign and should be removed or biopsied. If it's staying the same size or if it goes away, then those are things that make you feel like that's not as worrisome.

There are some other studies that can be done if there's a question of what a nodule is, just like Sharon had done. Oftentimes a PET scan will be ordered, and that can sometimes help make some decisions. PET scan is a nuclear medicine scan. Very aggressive lung cancers even if they're very small will sometimes take up a lot of the radioactive tracer and will be seen on PET scans.

The problem is cancers like Sharon's that are small that aren't super aggressive, they may not take up very much of that radioactive tracer on the PET scan so they light up with just a little bit of an intermediate level of activity or no activity at all, and it gives both physicians and patients a false sense of, "Well, that's fine, it didn't show up on the PET scan so it must be nothing." Even if it didn't it probably should still continue to be followed assuming it's got any of the characteristics that are worrisome for lung cancer.

There are lots of benign nodules that you can sort out just on CT scan as well. That's one of the reasons why we have a dedicated--we have three, actually, dedicated chest radiologists on our tumor board group so that we can look at those nodules and say, that one look benign, let's not worry with that, but this one looks serious.

Andrew:

That's the art of medicine. That's why what I'm hearing here is again if somebody had a CT scan or chest x-ray or whatever and it's sort of this gray area and it was disclosed to you, Sharon, you know, as you said, you didn't really realize what they were seeing that might have fallen into that grey area until you had your records. But if hopefully somebody's told, then it would seem to make sense you want to have a second opinion. And again I would say, if it were me, I would get that second opinion someplace where they have radiologists like we're talking about here who can look at that and say, based on my 30 years of experience looking at lung cancer on films this is what I think. And I think that's the art of the specialties.

And so I would urge people, especially in a large metropolitan area like Chicago where you have these resources available to you, to take advantage of it. Because again the down side of lung cancer spreading is, you know, a big one.

Ms. Leonard:
Devastating.

Andrew:

I think you'd agree. Sharon, would you echo what I said? You're glad you got on the freeway, you went downtown. It made sense to you.

Ms. Leonard:

I'm very glad I did. I'm very glad I got to meet Dr. Blum. I mean, because I told you earlier, I had all the confidence in the world. When I met him he just came in, said, this is it, this is what you should do, da-da da-da da-da. And I said thank you. And he's my little guardian angel.

Andrew:

Well, I hope that goes on for a long time.

Here's a question we got. So if a nodule's found and it's benign, what's the follow up then, Dr. Blum, if it's a benign nodule?

Dr. Blum:

Very often if we get to the point of doing a biopsy these are usually surgical biopsies. Oftentimes needle biopsies can be misleadingly negative. That is, you see a nodule, oftentimes patients are referred then for a needle biopsy, which is done on a CT scanner where they place a needle into the nodule itself. Sometimes they just get a few cells with that needle, that show "inflammation" and it doesn't come back with tumor cells on it. Because a needle biopsy samples so few cells it is not uncommon to see "inflammation" that ultimately turns out to be a lung cancer.

The biopsies that I'm going to talk about here are surgical biopsies where you completely remove the nodule. That allows the pathologist to look at the whole thing. It doesn't just give them a few cells. And for those that are benign, they are typically removed with a scope procedure. Very often those patients can go home the next day or sometimes even the same day. And usually the recovery period is just a couple of weeks.

The nodule is completely removed. If it is truly benign, there is no further follow-up. If it is some kind of an infection like a fungus or an unusual type of bacteria the biopsy provides plenty of material to culture for that so that you can appropriately treat it if it does need any kind of additional treatment. So there are advantages to having that nodule removed as well besides peace of mind, saying, well, I know I don't have that--that nodule is not lung cancer.

Andrew:

And if you had a benign nodule does that put you at any higher risk of having a malignancy?

Dr. Blum:

No.

Andrew:

Well, that's good to know. That's good to know.

Andrew:

I'll mention also that the replay of tonight's live program will be available on the HealthNet website on nmh.org probably sometime tomorrow. And so you can look at that there. And then there are a whole bunch of replays of earlier programs we've done.

Also in two weeks we'll have a medical oncologist who specializes in lung cancer. That's Dr. Jyoti Patel. She'll be with us talking about her end of it, how the chemical approaches work together often with the surgical approaches and radiation to help people do as well as they can and hopefully be cured of lung cancer. More of Patient Power brought to you by Northwestern Memorial Hospital right after this.

Andrew Schorr on Patient Power. A little more to go as we understand really one of the most serious cancers, lung cancer, because so often it's diagnosed late and then people are just--it's spread and some things move on, and it's really tragic when that happens. You want to catch it early. And fortunately in Sharon Leonard's case that did happen and she got excellent care. She got down to Northwestern and had the latest minimally invasive surgical approaches with Dr. Blum and now is being followed with no other medicine.

We have gotten a couple of questions too, Dr. Blum, that I wanted to ask you. Here's one that said, "My father's GP has told him that he has lung cancer but a doctor at the hospital said it's a carcinoma of the bronchus. Is that the same thing?"

Dr. Blum:

It probably is. If it's truly a carcinoma, --carcinoma of the bronchus is a lung cancer. There is another type of tumor called a carcinoid, which is also a malignancy but it's a much lower grade malignancy, and that's oftentimes treated with surgery. But the bronchial carcinoma is the same thing as a lung cancer. There is a type of lung cancer called bronchoalveolar carcinoma, which is a different type, but still lung cancer.

Andrew:

Okay. We'll buzz through a couple of other questions too. The other week tuberculosis was in the news. There's a concern that it's out there more after we've had so many years without it. If someone has had or has tuberculosis are they at higher risk for developing lung cancer?

Dr. Blum:

They may be at slightly higher risk, but it probably goes along more with smoking and some of the other issues that are oftentimes accompanying the surroundings in which TB is acquired.

Andrew:

Here's another one. People wonder, you know, let's take heart disease. If your mom or dad died in their 40s, as you get to age 40 if they had a heart attack you say, Oh, my, am I on borrowed time? What about lung cancer? Is there a hereditary connection there?

Dr. Blum:

There is probably some component of heredity in all cancers. As of yet, though, there haven't been a lot of studies showing that there is a clear link between some type of gene and lung cancer. For instance, in breast cancer there's the BRCA gene, which is pretty clearly associated with breast cancer development. But in lung we haven't found those genes yet. There's no doubt that there's some increased risk just from having family members that had it.

Andrew:

Here's another question we got in. They write, "I am a smoker but I do try and have a healthy diet so I take regular vitamin supplements. A friend has said this can be dangerous. Surely he's wrong." So any concern about vitamin supplements and you're a smoker? Any connection or advice there?

Dr. Blum:

No. It's probably not of a lot of help in terms of lung cancer specifically, although in your health overall vitamins, particularly if your diet is deficient in them, are a good plan. But there's not a particular danger of developing lung cancer because you're taking some type of vitamins.

Andrew:

The flip side is, it hits the paper all the time, you know, this prevents cancer. Is there anything we know that we can do besides stopping smoking or not smoking at all that could lower our risk of lung cancer? Anything we could eat, a place we could live or anything like that?

Dr. Blum:

Probably avoiding a lot of smoke exposures, a lot of irritants, dust and things like that, that may in a minuscule fashion decrease the likelihood of developing lung cancer. But none of those things have ever been shown to have any sort of dramatic effect. So even people with fairly heavy dust exposures, unless they were coal miners or somebody who really had heavy dust exposure, has been shown to decrease lung cancer rates. So lung cancer prevention is frustratingly elusive.

Andrew:

Okay. So therefore no connection between air pollution. There may be like allergens, things like that, but not as far as lung cancer.

Couple of quick things before we go. So looking in your crystal ball, sir, Dr. Blum, things you want to mention that people should keep an eye out. Things you're excited about or encouraged about related to new modalities, new ways of approaching lung cancer?

Dr. Blum:

Well, I think there are several. In all the patients we've been treating and all the patients we will treat we're trying to be more specific about our treatment so that our therapies have less down side and more up side. And some of the things surgically we've been doing is combining smaller operations with the placement of radioactive mesh, called brachytherapy, to try to decrease the chance of the tumor coming back from around the area of lung from which it was removed. At this point we use that in very high-risk patients but it may be that at some point we'll use that strategy with surgery combined with local radiation for average risk patients that have very small tumors.

Medically, there are many things that are coming along in terms of more targeted agents that have fewer side effects than the standard chemotherapy, and there are a lot of new developments there.

Andrew:

Right. We're going to talk about that in two weeks actually with Dr. Patel. Dr. Blum, we're short on time, so I want to thank you and wish you well with those new approaches. You've been terrific and I wish you well with your multidisciplinary thoracic malignancies group and your specialty on lung cancer at Northwestern Memorial Hospital.

Sharon, I'm going to give you a quick last word, because, very briefly, we're happy you're here and anything you want to say to Dr. Blum? Anything you want to say to your doctor real quick?

Ms. Leonard:

Thank you. For everything.

Dr. Blum:

You bet.

Andrew:

That's what it's all about. Sharon Leonard, we wish you all the best. Have a great summer. Rebuild those schools down in New Orleans. Dr. Blum, thank you for being with us.

Dr. Patel will be with us talking about all the medical oncology approaches to lung cancer two weeks from tonight. Remember, if you want to request an appointment go on line and take a look at nmh.org. Thanks for being with us. Andrew Schorr saying, as always, knowledge can be the best medicine of all. Good night. You've been listening to Patient Power on HealthNet brought to you by Northwestern Memorial Hospital.

Please remember the opinions expressed on Patient Power are not necessarily the views of Northwestern Memorial Hospital, 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.