

Atrial Fibrillation
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Richard Lee, M.D.

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Introduction

Andrew Schorr:

Hello and thank you for joining us once again on Patient Power. I'm so thankful to Northwestern Memorial for their dedication to educating you and your family so you can make smarter choices about important health concerns, and this is what we do every two weeks on the healthnet.nmh.org website.

A number of times we've talked about various issues of the heart, and here we go again with one that for many years maybe wasn't taken seriously enough, and that's atrial fibrillation. And that affects as many as six million Americans, and the latest information is it's been the second leading cause of stroke. And if you remember from an earlier program we did on stroke, it's a very life threatening, disabling condition if you survive a stroke, and so you want to avoid it at all costs.

Well, for many years the only available treatment for atrial fibrillation were medicines and blood thinners that were only partially effective, but there are new procedures, and they have learned how to do them very, very well at Northwestern Memorial and at the Bluhm Cardiovascular Institute Center for Atrial Fibrillation. They've developed a number of procedures now coming together to help people do better. And of course atrial fibrillation, the flutter is a heart rhythm disorder. It's a rapid heart rate in which the upper heart chambers, the atria, are stimulated to contract in a very disorganized and abnormal manner, and as we say that can raise your risk of stroke.

I want you to meet a gentleman from Marquette, Michigan, a former high school teacher and assistant principal. Lowell Larson, he's 64, lives way up on the south side of Lake Superior. He taught industrial education up there for so many years, and yet for all those years, since his 30s, he was suffering from atrial fibrillation that affected two of his three brothers as well. So that affected his life. Well, the happy story that you're going to hear was that Lowell chose to go to Northwestern and he had some of these new procedures we're going to talk about tonight, and it's made all the difference.

But Lowell, let's go back in time. Thank you for being with us. Atrial fibrillation really limited both how you felt and also the confidence of you feeling like you could

really feel that your heart was going to be there for you maybe in times when you visited your cabin, you're all alone, oh, my god, what could happen if your heart starts thumping, right?

Symptoms of Atrial Fibrillation

Lowell:

Correct. Good evening. Yes. I had a series of problems with atrial fib, and you know it did affect my life in a way I was used to living. And you never knew when a situation would occur where I would go into atrial fib.

Andrew Schorr:

Now, Lowell, I understand you could lie in bed on your left side and your heart would thump, and that was scary.

Lowell:

Yes. At night when I would lie on my left side, of course, atrial fib is on the left side of your heart, and this is where the problem occurs, on the left side. And when I'd lie on my left side I could actually feel my heart in my chest shaking and beating. And it really concerned me, and I'd immediately roll off my left side because I didn't like what I was feeling.

Andrew Schorr:

No kidding. Now, you have four kids and seven grandchildren and now you have one on the way. I'm sure they would worry about you, and your wife would worry about you knowing that you couldn't feel confident that your heart, was it going to start beating irregularly? Would you have trouble going up the steps? Would you need one of these cardioversions where you'd need an electric shock? Would you have to go in the hospital? That's kind of no way to live, isn't it?

Lowell:

It is. I was not familiar with cardioversion and maze procedures. When I was in my 30s we used strictly various medications to control it. But as I aged and put on a few years the recurrence of atrial fib seemed to be more prevalent.

Andrew Schorr:

So there you are, you end up with different medicines that are prescribed. And I talked earlier about these medicines and how they can be partially effective, but one of the medicines that has been around for so many year, Coumadin, and that's a blood thinner, trying to reduce your risk of a stroke, but that has to be monitored carefully, and so that's a heavy-duty medicine, if you will. So you were making regular trips to the lab to be tested. And I know you like to work with tools, and as I said you taught for so many years industrial education. Did you have a fear of cutting yourself and taking Coumadin, there might be some risk of bleeding?

Lowell:

Oh, absolutely. My brother was on Coumadin because he had atrial fib, and I knew from watching him that whenever he cut himself he'd bleed, and I actually was resisting my internal medicine doctor taking Coumadin at the time because I was fearful I knew my way of life working with tools, being out in the wooded area at camp, there was a danger. Running chain saws, you know. And every weeks I would have to go in, at least every three weeks when I was regulated on Coumadin, to have Coumadin checked, the levels to make sure that I didn't have too much medication on board or not enough. They tried to keep it within a respectable range.

Seeking Treatment at Northwestern Memorial

Andrew Schorr:

So for the folks listening to this story, and there are probably people nodding their head who suffer from atrial fibrillation and have to take these medicines, and maybe they don't use power tools but they certainly would like to get off these medicines, and I know that's your hope and it's a very real possibility now. We're going to discuss how you got there. Now, you're lucky enough to have a son-in-law, Dr. Mark Richards, a cardiologist, and isn't it great, your daughter married a doctor in this field, and while he's in Missouri he recommended to you that you should see a Dr. Richard Lee who we're going to meet in a second at Northwestern Memorial and that maybe there were newer procedures that could help. That seemed to make sense didn't it, Lowell?

Lowell:

Yes. My son-in-law had worked with Dr. Richard Lee, and he had raving reviews of how great he was and the new procedures, and he highly recommended that I see Dr. Lee, and so that's how we came about to meet and with me traveling seven hours to go to see him for a consultation.

Andrew Schorr:

Okay. And we're going to describe how seeing Dr. Lee, having a procedure and then a second one at Northwestern has really given you back a fuller life and a lot of confidence and a real possibilities, as I said, of getting off those medicines. We're going to describe that.

Let's meet Dr. Lee. Dr. Richard Lee is a cardiac surgeon on the medical staff at Northwestern Memorial. He's director of the Center for Atrial Fibrillation at the Bluhm Cardiovascular Institute, and he's also an assistant professor of surgery at Northwestern University's Feinberg School of Medicine.

Dr. Lee, thanks so much for being with us. I know it's probably a joy for you in the field to listen to Lowell who came to see you and you've been able to help, yet we know that there are many people, maybe up to six million people out there, with atrial fibrillation and often for so many years they were told it wasn't that serious.

Dr. Lee:

Yes it is. This is absolutely why physicians go to medicine. We want to make a difference in people's lives, and it's so rewarding to hear when we make a difference.

What is Atrial Fibrillation?

Andrew Schorr:

Tell me about the dimensions of the problem, though. So Lowell has gotten some of the newer procedures, but am I right, the number could be as many as six million and second leading cause of stroke?

Dr. Lee:

There's no doubt those numbers are correct. We used to think it was 2.2 million people in the United States had it. Now more recent estimates from a paper done by the Mayo Clinic suggested that as many as six million people have atrial fibrillation today. And, you know, as Lowell said it came on more when he got older. It is a disease that happens more often when you get older, like many of us do. And because as you know our population is aging we expect an enormous increase in the incidence of atrial fibrillation. As you increase a disease you increase the bad effects of the disease, so the devastating effects of atrial fibrillation, such as stroke, will dramatically increase over then next decade. It is already the number two cause of stroke. The problem will only get bigger.

Andrew Schorr:

Give us just a little biology lesson for just a second, anatomy lesson maybe. I described atrial fibrillation as just an irregular heartbeat, but I'm not sure I understand how does that lead to stroke or could lead to stroke.

Dr. Lee:

If I can back up just a little bit and give an overview of atrial fibrillation.

Andrew Schorr:

Sure.

Dr. Lee:

So you know your atria are the upper chambers of your heart, and the ventricles are the lower chambers of the heart. So we're talking about the upper chambers. Now, the way your heart squeezes, it is a special muscle conducts electricity.

There's only two things, your nerves and your heart muscle conduct electricity in your body. So actually your heart fires an impulse, the impulse spreads and the heart jumps and squeezes. And then the impulse gets to the lower part, the ventricles, and it has a fast pathway and that jumps and squeezes as well. So in the upper part the impulse goes and the heart squeezes.

Now, how does the impulse get across? Well, the best analogy I can give is if you have a beautiful crystal pond on a still day and you take one rock and throw it in the middle of the pond you get a single series of waves that spread out through the pond, right? That's sinus rhythm, a rock in the middle going every--80 times a minute. Now, if you had a hundred rocks and threw them in the pond you'd have chaos. You'd have circles everywhere. That's atrial fibrillation. And when you've got that the atrium won't contract. So the atrium just kind of quivers and the ventricle beats very irregularly.

Now, when you've got a pool of blood just sitting there and not really emptying very effectively, it clots. In particular it clots where there's, you know, a little eddy. If you have a stream, if you watch a stream, the flow down the middle is fine, but, you know, in the little pool offshoots it gets kind of stagnant and you get overgrowth there. Well, that's what happens. There's a little outpocketing of your atrium called your atrial appendage that blood does not flow so well, and it gets kind of stuck and clots. When that clot breaks off, that causes a stroke.

Andrew Schorr:

Okay. I get it. That analogy works great for me. What I'd like to do, Dr. Lee, is help understand how some new procedures you have, minimally invasive, can change that irregular heartbeat and give people back their lives without the big heart procedures that you use to have to do before and who it's right for. So we'll have you explain that.

We'll be right back with much more of our discussion on atrial fibrillation with Dr. Richard Lee and Lowell Larson on Patient Power brought to you by Northwestern Memorial Hospital. Stay with us.

Surgical Procedures for Treatment

Andrew Schorr:

Welcome back to our live webcast, Patient Power, brought to you by Northwestern Memorial Hospital. Today we're discussing atrial fibrillation, which used to be thought, well, it's not that big a deal and you can live with it. Well, guess what. They're finding it's the second leading cause of stroke, and it definitely can affect your life, and it can cause a lot of worry for you and your family. The good news is beyond the medicines they've had for quite a while, maybe a handful of pills and

monitoring you need to do and beyond the big open surgery that they used to do, now they have minimally invasive surgical procedures, ablations that we're going to talk about, that can make a big difference and apply to a bigger group of people. And we're going to learn who is it right for, what do they do.

I'm delighted that we have with us Lowell Larson who joins us from Marquette, Michigan, a former high school teacher and assistant principal and where he is doing so much better. He's had two procedures, one on the outside of the heart and one on the inside of the heart. One in August of 2007 and then before Thanksgiving in 2007. So here we are months later, and he is doing so much better. And Lowell is going to tell us more about it.

But let's about go back to his doctor, that's Dr. Richard Lee. Dr. Lee is the director of the Center For Atrial Fibrillation at the Bluhm Cardiovascular Institute. And as you heard, Bluhm Cardiovascular Institute is really one of the foremost centers in the country, and then it's right in the heart, if you will, of Chicago. So certainly a great place to go. And Lowell chose based on the advice of his son-in-law who is a cardiologist in Missouri to go there, seven-hour drive. It was worth it. It's given him back his life and good health.

Dr. Lee, help us understand now, we've kind of alluded to these newer, better procedures, surgically how did you deal with atrial fibrillation before, and what minority of people with atrial fibrillation did you really go that extra mile for, what was involved in that surgery, and then help us understand what you can do today that's so much more minimally invasive, if you will.

Dr. Lee:

Sure. Well, back in 1987, it was quite interesting. There were three people, an electrophysiologist, a cardiac surgeon and a Ph.D. And they got together and they developed this procedure called the maze procedure. And what it does is it actually makes a series of scars and actually kills multiple areas on the atrium on the heart. Well, how does that help? Well, as I said there was a lot of these electrical impulses will go around in circles all over, and what this does is actually form a maze, it's just like a kid's maze, that forces that impulse through the maze from point A to B, to the end, from the beginning to the end. And it cures atrial fibrillation. The impulse can't get lost. It just goes to the maze's scar.

Now, to do that procedure a while ago it required cutting and sewing all the tissue. And I actually spent two years in the lab working where they developed this procedure, working on a minimally invasive maze procedure, and I was there when he left. At his going away party he told me that the maze surgery was dead, and he was right. No one was doing it. No one wanted it. It was just a big surgery. It required open chest. It required being on the heart-lung machine. It required stopping and opening the heart. And as you know a sternotomy usually takes

about two months to heal. If you break a bone it takes a couple months to heal. So people were out of work for a minimum of two months.

So even though we did it there were really only a couple hundred cases a year. His whole series was maybe 200 patients, and there were only a few hundred cases at multiple centers across the country. So we had good experience with it and good results, but not many people do it.

Since that time actually things have changed. Number one, the guys like Lowell's son-in-law, Mark Richards, uses a catheter, and he can make some of these scars from the inside quite effectively. In addition we've got new technology surgically where we can make these scars without cutting the heart open. So what has changed? Well, what we've done here at Northwestern is taken the best of what Lowell's son-in-law does and the best of what we do as surgeons and put them together. Because we can recreate all the lesions of the maze with two small procedures, you know, much smaller procedures, one of them being two small holes in the chest and making half the lesions and taking the appendage, as you remember, that's the area that clot tends to form and that's where stroke really comes from, and then a groin poke at a later date to complete and make the rest of the scar line. So we can do the whole maze, and that impulse goes from point A to point B and doesn't get lost on the way.

Andrew Schorr:

Oh, so cool. Dr. Lee, let me go back through this and make sure I understand and our audience does. Lowell, you help me too.

So what you're doing is for you as a cardiac surgeon, you're using your sort of laparoscope, I think of it that way, but the scopes and the cameras and stuff, and you're going in and going on the outside of the heart and causing these scars in strategic places to make the corrections there. And then if needed, and I understand not everybody needs it, then someone like Mark Richards who used to work with you, but I guess would that be an interventional cardiologist?

Dr. Lee:

Right.

Andrew Schorr:

I don't know how to describe that, would go in through the groin and then kind of do some ablations at strategic points inside the heart. Not everybody needs that, but you see Lowell ended up having both. But did I describe it correctly?

Dr. Lee:

Perfectly. And the guys here, actually we have both of them I work with, they're electrophysiologists, but they are interventional cardiologists. So the guys here are

Jeff Goldberger, Rod Passman, Alan Kadish, Jason Jacobson, Rishi Aurora, Dr. Kim, and those are pretty much the guys who I work with to do the connecting lesions.

Andrew Schorr:

Okay. Lowell, so let's hear about it from a patient's perspective. So you make your seven-hour drive. You go down to Northwestern Memorial. You have the first procedure that Dr. Lee did. How big a deal was that? And of course you know what the alternative could have been, this major heart surgery that people didn't even want to have anymore. So having this minimally invasive approach, how did that work out for you?

Lowell:

I met with Dr. Lee and his team, and he basically laid out exactly what was going to happen. He told me what to expect, you know, that there was discomfort with it and that they had medications to take care of the discomfort. The first days were a little rough. I mean I had discomfort, I wouldn't say it wasn't.

Dr. Lee:

Oh, it was pain.

Lowell:

But it wasn't anything he didn't tell me. And I was fine in the hospital, and we seemed to have it under control at the time. When I left the hospital I had a seven-hour drive back. Well, after I left the hospital on our way back home I felt it slip into atrial fib again on the return trip. And Dr. Lee told me, he said don't be surprised if it happens. And sure enough, it did. So we got together again and he said, well, let's wait until we had a healing period so they don't put a catheter through any weak spot of the heart. And when the heart healed up a little bit was when I returned for my second procedure. But in the meantime, in between the two procedures, Dr. Lee worked with one of the cardiologists up here in Marquette, seven hours away, and he controlled my atrial fib with medication until I was able to go back down for the catheter ablation.

Catheter Procedure

Andrew Schorr:

All right. Dr. Lee, let's find out on part two. So I understand some people only need the lesions on the outside of the heart, but Lowell's an example of somebody who needed kind of the full meal deal, if you will.

Dr. Lee:

Right.

Andrew Schorr:

So that's when then you go in through the groin, run a catheter up and you do the ablation, and so there's another percentage of patients like Lowell who need both.

Dr. Lee:

Right. There's actually some patients that just need the surgery part, some patients that just need the catheter part, and some patients that need both. And what we do here is we actually have a special cardiologist, an electrophysiologist like Mark, and myself meet together with our patients and our nurses, and we kind of go over what we think is best for the patient but let them choose what they think is best for them. You know, some people have had catheter ablations before and they failed and they just don't want to risk it again, so they want to up for a surgical ablation right away. But in general, as I said some, people get only the catheter, some people get only the surgery and some people do get both.

Andrew Schorr:

All right. And then related to Lowell, you recover. And then you had the catheter procedure. What was the recovery like for that?

Lowell:

Oh, that was a piece of cake compared to the first one. I had very little aftereffect of the second procedure. That was very easy, the catheter ablation. And ever since that catheter ablation I have not had any symptoms at all since November. So now we're waiting to put a monitor on. They want to check me for 30 days to make sure that I'm not having small episodes that would--could cause problems, so they're going to monitor me with a monitor to make sure that I'm not having any further problems before they start reducing the medication and my Coumadin.

Andrew Schorr:

Right. So the goal would be in a safe way use fewer medicines, less dosage and ultimately, boy, wouldn't you and your family celebrate and you could just give flowers to people at Coumadin lab and say see you later, where you could be off all medicine, and that would be great.

Dr. Lee, tell me is that a reasonable goal? Could somebody at least reduce their medications by a great deal or maybe even get off Coumadin?

Dr. Lee:

That's a totally reasonable goal. About three-fourths of the people are off medicines after we do the full maze, and the majority of them are also off Coumadin. Now, it takes time, and you have to be a little patient. Why does it take time? Well, what we do is we want to keep you protected from a stroke. And

someone like Lowell I think we'll be able to get him off Coumadin but we don't want to just get him off Coumadin, we'd like to get him off all the drugs. So what we'll do is we'll start getting rid of the drugs.

Now, if he goes back in atrial fibrillation, that's okay, we'll put him back on his drugs. Then we'll get rid of his Coumadin as soon as he's back in regular rhythm. But if he gets off his medicines and stays off his medicines, well, that's even better, and then we just stop his Coumadin. We know it's safe, that he's in sinus rhythm. So really the Coumadin is the last thing to go because it's protection just in case the reduction medicines, he doesn't tolerate the reduction medicines. And if he needs the medicines, we'll figure that out too.

Andrew Schorr:

Wow. Well, how would you characterize what you've been able to do as far as making progress in this? So first we identified the problem as much more serious than people realize, but it sounds like your team and what I guess is available at a big center like the Bluhm Cardiovascular Institute and sort of multidisciplinary team, you're able to really come up with a pretty good solution.

Dr. Lee:

Well, we're proud of it here. We're very optimistic that we're going to make a major impact, and things are getting better and better and the surgery will get more advanced and smaller and smaller incisions. But we're really proud of what we've done here. And I say that because we're so used to in medicine having different silos, and surgeons just do surgery and cardiology just does medicines and cardiology EPs just use catheters, and rarely can you get a whole group of people together and say, Hey, let's take what you do best and what I do best and we'll just do what we do best and we'll work together to gives better options to patients. And I think this represents a major advance forward in the treatment of atrial fibrillation.

Andrew Schorr:

Right. And I think it's what people should expect, and that is, when we talk about quality care, I'd like to tell you that the highest quality and the leading edge of medicine and these newer procedures and people working together is throughout medicine. That's why we call this program Patient Power, you can hear how hard they've been working at it at Northwestern Memorial, and that's why Lowell went there.

Dr. Lee, we've gotten several questions in so we're going to tackle those along the way. Also understand where the medicines come in and how do you know when you move on to these approaches, these surgical approaches, these ablation

approaches. I'm learning a lot. I'm sure all of our listeners are, and we'll learn more as we continue Patient Power, brought to you by Northwestern Memorial Hospital.

Candidates for Surgical Treatment

Andrew Schorr:

Welcome back to Patient Power, our live webcast that we do with Northwestern Memorial every month, and then we have another program that we record and we post two weeks later. So keep an eye on all these coming up, and I'm sure that you will find in the library of our Patient Power programs on HealthNet something that applies to your next door neighbor, your aunt, your uncle, your mom, your dad, your kids. We've covered so much over many months, please take a look, because it's Northwestern Memorial's commitment to helping you and your family play a much more active role in your care and that whether you go to Northwestern Memorial or not you get the best care. And really if you're a smarter patient I can tell you, really having gotten smart, you will do better. Okay.

We're talking about atrial fibrillation today, and Lowell Larson is helping us with his story. As you heard, he had two procedures, one on the outside of the heart, through the ribs, one on the inside of the heart up the catheter, you know, through his groin, and now they're seeing can they reduce his medicines, maybe get rid of all of them, wouldn't that be great, and then go on with his life and not have the worry he's had before.

And I'm sure, Lowell, you know, you've got four kids, you've got grandchildren and you've got a wife of many years, Pearl, and wouldn't you agree they've worried about you over the years haven't they?

Lowell:

No question about it. No question about it. I'm just so elated right now that we've made this progress, because as I kept progressively having more episodes it was very concerning to my wife and to myself. I had no other heart problems or heart attacks and being a candidate at this point that's why I wanted to go through this because I didn't want to have a heart attack and then end up with atrial fib in addition to a heart attack, you know, if that should occur.

Andrew Schorr:

Or a stroke would be catastrophic, of course. Let's talk with your doctor, Dr. Lee, a little bit about this.

Dr. Lee, it used to be obviously that just the sickest, sickest people, you'd go years ago and think about, well, would you actually do a heart surgical procedure. You know, stop the heart, heart-lung machine, all these things you were talking about.

And what about now? With these minimally invasive approaches, of the people, maybe as many as six millions with atrial fibrillation and this identified now risk of stroke, where does this come in? How do you have a discussion with your doctor to say, Am I candidate for this? What's the criteria?

Dr. Lee:

Well, I think, to go back to one of the things you said, though, patient power really is education. And, you know, as much as we'd like to think we know everything about medicine just because we're doctors, it's just not true. I know a lot about cardiac surgery, I know a lot about atrial fibrillation, a lot more than most doctors, but there's a lot of medicine I don't know much about. And actually I think this awareness of atrial fibrillation is growing not only among patients but also amongst physicians, so I think, a lot of times my patients have been pretty well informed and I just have to take a step back. So I think that's part of the reason it's been undertreated in the past, just a lack of education, not only among patients but also among physicians.

Now, where will it play out? I don't know the exact numbers, but the people who are good candidates are people like Lowell. Somebody who has taken medicines and it's not working any more. And actually we know at two years the most effective medicine for atrial fibrillation is only about 50 percent effective. One in two people it actually works for. So that's a lot of people that I think are candidates for atrial fibrillation surgery. Now, also, if you can take one pill and it works it's probably the right thing to do even though there are some side effects.

In addition, as he said, he didn't have any other problems with his heart. If you had a problem with a leaky valve and atrial fibrillation, well, this is not your solution. The solution is fixing the leaky valve. And as you suggest our outcomes are getting a lot better with cardiac surgery, so it makes more sense to offer it a lot of times earlier than before when we offered it really at times when it was too late to do anything about it.

Recovering from Surgery

Andrew Schorr:

Now, Lowell, let's talk a little bit about your quality of life. So how many pills, let's go back to before any of these procedures. How many pills would you have to take every day and how often?

Lowell:

I was on as much as 180 milligrams of sotalol a day, and currently I'm down to 120 milligrams of sotalol. It involved, you know, there's different, the number of pills isn't really, it's the strength of the pills. Some are more powerful than others. But I'm not a doctor to tell you all the technical terms, but anyway I was up to 480,

which was quite a healthy dose of sotalol to keep my rhythm. But then after my second procedure in visiting the local cardiologist here we started to wean off of them, and I got down to 120, which I was on prior to my surgery, you know, in the fall of the year.

Andrew Schorr:

And did you ever have Pearl saying, Now, Lowell, did you remember to take your medicine?

Lowell:

Well, I always looked at her. I would forget. And, you know, they say don't double up on medications, and if I forgot, no matter where I went, if I went out to camp or to my cottage I would have to take my medication with me of course and make sure I didn't forget it or I would have to turn around and come home and get it because I did not want to risk the possibility of going into fib. Because I have had cardioversions. I had four of them that I can recall where I had to go into the hospital, they had to put me to sleep and then cardiovert me back to get my heart back into rhythm.

Andrew Schorr:

Yeah. That's scary. I'm sure it's scary. Let me pose a question that we got from one of our listeners while we've been talking here, to Dr. Lee. So this fellow maybe was in a similar evasion. Jim from Chicago wrote in, "I'm currently on sotalol, 120 milligrams morning and evening, and I've been averaging three attacks of afib each year, and when I get these attacks the sotalol never seems to get me back into rhythm and I end up getting cardioverted," which Lowell was just talking about. "Any suggestions on how I can get back into rhythm without cardioversion? How many cardioversions can I take?" Dr. Lee?

Dr. Lee:

You know, there's no way to really tell how many you can take. But in general we don't think there's a number, we don't think there's a limit to how much cardioversions you can have. The question is will it be successful or not. And in general, of course, we'd have to meet him individually but the progression of atrial fibrillation is it gets worse and worse and worse, and it goes from coming and going into always being there. And as that progression occurs the chances of the cardioversion working gets less and less and less. So more likely than not at some point it no longer will be effective.

The only way to prevent going into atrial fibrillation other than medicine would be a procedure, whether it be a catheter or a surgery.

Long Term Effectiveness of the Maze Procedure

Andrew Schorr:

Okay. Now we got an e-mail just now from Doug, and it's in two parts but he says, and I think you'd agree it's sort of the bottom-line question that our listeners are asking. So let me read this to you. Doug writes, "Everyone with afib would want to know the answer to the question, quote, what are the odds that a particular procedure will permanently restore one's heart to normal sinus rhythm and keep it there for life?" And then he comments, "It's understood that there's no simple answer to that question and that the answer varies widely for different patients with different symptoms of the atrial fibrillation." However he goes on, "Are there studies that exist that monitor and record the success and failure rates of procedures such as the one we've been discussing tonight and provide a statistical range of possibilities especially for long-term effects and chances for a significant reduction in occurrences?"

So, given all that, you know, when somebody calls to see you, Dr. Lee, what do you tell them about the chance it's going to last and that it's going to work?

Dr. Lee:

The maze procedure has been around since '87. You know, there are few long-term series we have, and it depends how close you look. If you just call patients on the phone sometimes you get a successful result, but it does really keep you out of afib. So we've learned that more and more intense monitoring of course picks up more atrial fibrillation.

At this point I think the real answer for long term, I don't know about life, but long-term success, meaning ten years or so, of the maze surgery, we think it's somewhere in the 80 percent range. Remember, though, this is for people that medicine is not really working for. And as I said the majority of them get off anticoagulation.

But for me the afib sinus rhythm is not my main focus. My main focus is the reduction in stroke. And we don't have any randomized prospective studies for any of this stuff. We don't. It's all evolving. But what we do have is pretty big case series. So Dr. Cox has a series of over 200 patients with over ten years of follow up, and in that series of over 200 patients who were at high risk for stroke-many of them already had strokes before so they were even higher risk of stroke, only one stroke occurred in follow-up. Under one percent stroke over a ten-year period. Now, that's pretty remarkable.

So the way I look at this, and we have multiple studies that support that, that there is a reduced incidence of stroke after the maze. Now, for me, I look at this like the carotid endarterectomy. If you have plaque in your carotid and you shell it out it

doesn't cure stroke but it markedly reduces it. It's kind of what I think about the maze for atrial fibrillation.

Andrew Schorr:

Okay. Now I want to comment on something too, see if you agree. So there is an art to medicine. And so, you know, somebody asks the question, well, what are my odds? How long is this going to last? Will it, you know, be lasting? Will it work for me? That's going to vary by institution and quite frankly by practitioner or in your case a whole team of healthcare providers working together. And I think really the question is at Northwestern and the Bluhm Cardiovascular Institute how should this work for me in my case based on the data you have in following your patients, right?

Dr. Lee:

Right.

Andrew Schorr:

Because it may be very different somewhere else.

Dr. Lee:

Absolutely. It is one of the things we do here, and you're right. Even in my practice in St. Louis I didn't have the support for long-term follow up. One of the things, as Lowell well knows, once you get an operation here you actually get followed for life because we want to know and then be able to answer those questions honestly and effectively, and we can't really do that at every center. Now, I can give you our estimate, what we think. We think this will be over 80 percent effective, and that's a very conservative number. We think this will be over 80 percent effective in treating and curing atrial fibrillation long term. We also think it will markedly reduce stroke, down to a couple percent.

Andrew Schorr:

Wow. Well, I tell you, folks, you should listen to our earlier program on stroke where a gentleman who lives just a couple of blocks from the hospital started to have a stroke, and fortunately his wife recognized it, and they were at the emergency room in a flash, and that probably saved his life. You don't want to go there. You do not want to have a stroke if you can avoid it. And that's why I think that end point, if you will, Dr. Lee, of saying can we reduce of risk of stroke is very significant.

But let's back up just a little bit. So we think that there may be up to six million people who have afib, and maybe some people don't know it. What are some of the symptoms? I mean, Lowell, you told me that you would go up stairs and you'd

get tired or lay in bed and you'd have thumping in your heart if you were on the left side. Just go through the symptoms for us, Doctor. And also tell us does it run in families, because Lowell said, well, his two other brothers had it?

Dr. Lee:

Can I answer a question you didn't ask first, though?

Andrew Schorr:

Oh, yes, you can.

Coumadin Risks

Dr. Lee:

At least the first point. You know the thing about Coumadin also, it has risks too. So just because you're on Coumadin doesn't mean you won't have a stroke. It reduces it markedly down to much more manageable levels, but even on Coumadin you have about a one percent risk per year of having a major bleed in your head and about a one percent risk per year of having a major stroke. So you're still at a couple percent a year, and over a ten-year period it's more like 20 percent. So, you know, Coumadin is not the answer, I don't think. Now, that's the art of medicine. I mean, that's my opinion based on the available data. We don't have randomized prospective studies. So Coumadin scares me as well.

Now I'll switch back to answering the questions you asked. Many patients feel like their heart is beating very fast and racing, and it is. It's uncontrolled atrial fibrillation, their rate's uncontrolled. Your heart beats really, really fast, and actually that's why some people even without coronary disease may have a heart attack. Especially if they have coronary disease, they are at risk. Why? Because your heart beats real fast, your heart wants more oxygen in your blood, not enough gets there, not enough supply to meet the demand, so you get a heart attack.

Also you can get dizzy and feel fatigued and feel like you need to lay down because your blood pressure is low. Why? Because your heart's beating so fast it doesn't have time to fill up and then add to the pumping blood. It's just very, very small amounts of blood can circulate with every beat because it's beating too fast. People get short of breath, fatigued, and those are the more common symptoms.

Andrew Schorr:

Okay. Just a quick question we got in from Sarah in Tulsa, Oklahoma. She writes, "What's the typical age range for diagnosing atrial fibrillation?"

Dr. Lee:

It varies. You know, we know actually it increases with age and it's more common in the elderly, much more common in the elderly, which unfortunately they're the

people less likely to get Coumadin, and in the elderly 30 percent of all strokes happen from atrial fibrillation. So there's no age. A patient I just operated on today was 42. A patient I operated on last week was 85. So that's the range over the last two weeks.

Andrew Schorr:

What about the family connection, like in Lowell's family where there's two of his brothers with it?

Dr. Lee:

That's a story we haven't really unfolded yet. Now, it's very common where someone says, Well, my brother has it, my sister has it, and oftentimes I get patients that are happy with the results so they say, Look, I'm going to get you my brother, you know. But that's the minority. It's not the majority. And the analogy I used earlier, it's like breast cancer. I mean, it's a bad disease, and there are some people who have it and it runs in families and it's clear it runs in families, and we've identified that gene. But that's the minority of breast cancer. Overall, breast cancer is heterogeneous and a lot of people get it for different reasons. That's kind of how atrial fibrillation is. There's some certain families that have it but a lot of people they may be the only person in their family that has it.

Andrew Schorr:

Okay. We're going to take another break, and when we come back we still have time for some questions. We're visiting with Dr. Richard Lee from Northwestern Memorial and the Bluhm Cardiovascular Institute. He's the director of the Center For Atrial Fibrillation there. I'll give you the phone number to call the Bluhm Institute in just a minute but also to click on the links on our website. Also we'll hear some words of wisdom from Lowell Larson about what he'd say to you, the listener, if you're suffering with this or a loved one is, how to really get the care you need and deserve.

We'll be back with much more Patient Power in our discussion on atrial fibrillation right after this.

Is there a Connection with Acid Reflux?

Andrew Schorr:

Welcome back to Patient Power. And thank you so much, Northwestern Memorial, for sponsoring these programs so we can bring them to the world and help people get better care, whether it's a seven-hour drive that Lowell Larson made or maybe you'll fly over or maybe just walk over like my cousin Kathy who lives in Chicago and has had some heart procedures at Northwestern. It's helped a lot.

By the way, I'll just mention that on our next program on February 26th we're going to talk about stem cell treatment for heart repair. Dr. Lee, that sounds really cool. And we'll talk to some of the experts in that. But back to atrial fibrillation.

We've got a couple of quick questions I want to fire at you that we got in the e-mail. This one came from Steve. And Steve went out and had a big meal last night, and then he had reflux. He also has atrial fibrillation. He wants to know is there a connection with what he eats and reflux and atrial fibrillation.

Dr. Lee:

You know what, that's interesting. Just like there are some family clusters of atrial fibrillation, a lot of people have symptoms they can relate at different time points. And they sound like the same story. They say, Well, I had a big meal and every time I have a big meal I go into atrial fibrillation. I have a couple alcoholic drinks, and after that I go into afib. I have caffeine, and every time I have caffeine I go into afib. Now, that's pretty common. Now, the reflux itself I don't think there's ever been a relationship shown. But the story of having a meal or a big meal and laying down and going afib or going afib at night is common.

Why do we think that is? Well, we think that there's special nervous pathways, autonomic ganglion, that help regulate your heart's beat, and if you stimulate them they actually mess up the signal of the heart and make it easier to go into atrial fibrillation. So as part of the maze procedure we actually target those areas to make sure we destroy that tissue so that we can help keep you in regular rhythm.

Andrew Schorr:

Now, I don't want to make light of it, but what causes afib for some people, you know, Michael has written in from Ann Arbor, Michigan, and he had his first attack on Christmas Eve. I don't know whether there was a party, whether it was crazy in the house or what. And then he had it again on Super Bowl Sunday, very bad attack, ended up in the hospital. His heart beats per minute were 195.

Dr. Lee:

Yes. That is a common story, to have atrial fibrillation around times of alcohol consumption. I don't know if that was Michael's situation, but many of us do a little celebrating around those times.

Andrew Schorr:

And you know, different people, different situations. What Michael is asking about is if he's having these accelerated incidents and a heartbeat of 195 and, you know, needs to be in the hospital should he have the discussion with his doctor about these newer procedures?

Dr. Lee:

I think so. It depends. I think he needs to go somewhere and be put on medicines and if the medicines work, fabulous. Some people get on medicines and they don't have a problem again. Some people don't want to take the medicines or actually the medicines don't work, like Lowell's didn't work. If it doesn't work then you should talk about doing something more, like having a procedure, like I said whether it's a catheter-based approach or a surgical procedure or the hybrid maze.

Andrew Schorr:

Lowell, I want to go back to you for a minute as we kind of pull all this together because what it's about is something somebody going on with their life with better health, spending time with their family, their children, their grandchildren, doing what you want to do. You've made a commitment, and it was great advice from your son-in-law Mark Richards to really go where they could provide state-of-the-art care and a whole interdisciplinary team, and it's worked out. What would you say to people who like you have been dealing with this 30 years or so and it was accelerating as you got older? What would you say to the listener who's just coping and not knowing is there another shoe that's going to drop like a stroke that could be serious in their future. What advice would you give them?

Seeing an Electrophysiologist

Lowell:

Well, one thing we haven't talked about much was when we talk about a cardiologist, I was going to a cardiologist, but there's an umbrella over the name cardiology, and there's a lot of specialties under that umbrella. And I would highly recommend to anyone to be certain if they have atrial fib that they work with an electrophysiologist. I had a cardiologist that I found out later his specialty was heart blockages. Well, I immediately started seeking out electrophysiologists. That what I would strongly recommend. If he can control it with medication, I did it for years and I got through many years with medication, but as we mentioned it got progressively worse and I had to go to the next step.

One thing I did not mention I want to mention at this point getting back to family, my son, who was 29 years old, when he was 29, he's 30 now, but he had his first episode of atrial fib, but he controls it with a single aspirin. So, you know, there's different stages of it, and I just wanted to make that understood that medication, we don't have to go to the surgical procedure but starting out and working closely with a cardiologist.

And the other thing is I wanted to fight Coumadin, but when they sat me down and explained to me I had to have it because of the risk of stroke, you know, I accepted the fact and I moved on. So don't fight the blood thinners until you get this under control.

Andrew Schorr:

You're a smart man.

Lowell:

And I kept up on the reading on atrial fib, whenever there was something in the paper about atrial fib, because this technology is changing so much that you, the doctors are so far ahead and even the current practicing internist and so my own internal medicine doctor told me five years ago, Next time you go into atrial fib we're going to look at keeping you out of - stay in atrial fib and stay on like Coumadin. Now, Dr. Lee mentioned there's no correlation that you can live longer...

Dr. Lee:

Well, but you know what, though? Actually when you look at the studies, the people in sinus rhythm actually did live longer, and it was just the study, the way it was designed that confused even physicians. So there is actually support for sinus rhythm. Sorry for the interruption.

Andrew Schorr:

So there's a few points, though, I just want to go over. We'll just go a couple of minutes long because these are very, very important points. And, Lowell, you were saying that. First of all, Yay to you, Lowell. I couldn't agree with you more that when you're living with a chronic condition like this, and you imagine me, you know, I'm a leukemia survivor, that you got to get smart and you've got to stay smart.

And there are two other things that are going on. One is that your status may change, and we talked about how aging and your afib story was changing as you aged, so that you're a moving target, your own health. And then the technology and the approaches are changing, and also where are the leading specialists who specialize in what you've got. So in your case you connected with Northwestern where there was a great team for you. And as you said not all cardiologists are alike, not all cardiologists are expert in this particular approach.

And it sounds like, Dr. Lee, what you have at Northwestern Memorial now is an interdisciplinary team. You're looking at outside of the heart, the inside of the heart, the cardiology medicines and saying what's right for this patient now and then a plan for the future as well. Do I have it right?

Dr. Lee:

Absolutely. And in addition, you know, the people. We have two nurses, Jennifer O'Leary and Jane Kruse, and without them we could not have this center. And they actually probably do more for any of the patients than any of our doctors do, quite frankly.

Andrew Schorr:

Yay, nurses. By the way, I wanted to give the phone number for the Bluhm Cardiovascular Institute.

Dr. Lee:

I've got that right here for the center, for the afib center.

Andrew Schorr:

Go for it. Go ahead.

Dr. Lee:

866-662-8467.

Andrew Schorr:

Right. And that is the number. If you go to heart.nmh.org, then that's the website for the Bluhm Cardiovascular Institute, and the number is right there. You can call for an appointment and see whether Dr. Lee is in your future or any of the other members of the team just like the ones who helped Lowell Larson.

Lowell, I want to wish you all the best as we wrap up. I know now that you've retired from teaching you're a busy building contractor, and it sounds like as you're getting your full health back you can do that and use those power tools with a lot more confidence.

Lowell:

Absolutely.

Andrew Schorr:

Okay. Now I don't know if you're going to do it up in Marquette, Michigan, though. You told me the other day with the wind chill is was, what, 37 below?

Lowell:

Yes.

Andrew Schorr:

Okay. Well, I don't know if I could handle that. But when the weather gets warmer you'll be out there with your power tools and building some great houses for people. We wish you all the best. And when is that new grandchild coming?

Lowell:

Next month, March.

Andrew Schorr:

One other comment I wanted to make on your story is, you know, sometimes dads and father-in-laws have a funny relationship. I'm very close with my father-in-law. Mark Richards must be a pretty special guy in that he helped you connect with some great care.

Lowell:

Oh, absolutely, yes.

Andrew Schorr:

All right. Good for Mark. I hope he's listening. And all the best to you, Lowell.

And, Dr. Lee, a final word from you. What would you say to people, whether they're around the corner from Chicago or far away, so that they can make sure they're evaluated and see whether their afib situation now is getting optimal care?

Dr. Lee:

I'd at least give us a call or at least a center like ours where you have a multidisciplinary team. Oftentimes our nurses will field the call and say, Well, look, I don't think you really need to come on in. Why don't you just stay home. Or We know somebody near your house. If we know somebody near your house we'll hook you with them.

Andrew Schorr:

Right. Great advice. Dr. Lee, thank you so much for being with us and all the best to you and all those people are rattled off at the Bluhm Cardiovascular Institute. I'm delighted you're working together, and I think we'd agree from the patient's perspective all the different subspecialties working together gives us better care. Thanks so much for all you do.

Okay. That was Dr. Richard Lee, and then you heard from Lowell Larson. All the best to Lowell too. Remember, we do this every two weeks. We invite your questions. That's what Patient Power is all about. And what I found as we do these programs is knowledge can be the best medicine of all. So thank you so much for joining us on Patient Power. I'm Andrew Schorr. You've been listening to Patient Power sponsored by Northwestern Memorial Hospital. Good night.

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