The Latest Advances in Gynecologic Surgery

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MJ's Story

Andrew Schorr:
Using advanced techniques like robotic surgery, surgeons are now able to operate on benign gynecologic problems with greater precision and accuracy leading to fewer complications and less recovery time. Coming up, Dr. Alexander Lin from Northwestern Memorial Hospital in Chicago explains these approaches, plus we'll meet a patient who shares her own story of benefitting from one of these procedures. It's all next on Patient Power.

Andrew Schorr:
Hello and welcome to Patient Power sponsored by Northwestern Memorial Hospital. I'm Andrew Schorr.

Well, unfortunately sometimes for women there is a need for a gynecologic procedure. It could be heavy bleeding. Could be a hysterectomy. Very, very common. Could be fibroid tumors. There are a variety of reasons, and we're going to hear about them. Well for MJ Starshak, who lives over by Wrigley Field, [and is] a big Cubs fan--she's 45, single, active woman, plays volleyball, very active--for you, MJ, it was fibroids, right?

MJ:
Yes. Yes.

Andrew Schorr:
So tell me about that. How were the fibroids discovered, these benign masses of cells?

MJ:
Well, I go every year for my, what I call my poke and prod, you know, our gynecologic checkup, and my doctor had located the fibroids in my lower abdomen, and I knew that something was going on because my stomach was starting to feel solid, not soft and squishy. And I knew that something was going on. I didn't have any pain, but I'm aware of my body enough to know that that's something that's different. So we checked it out and found that it was fibroids.

Andrew Schorr:
All right. And so then the idea is, what do you do about it? So you were connected with our guest today, Dr. Alexander Lin, and we're going to talk to him in just a second, but you did not want to have a big open surgery, right?

MJ:
That's true. That's true. Actually, I told Dr. Lin when we started to talk about the options that I had for surgery or for rectifying the situation I told him I had never had any surgery and I'd kind of like to come out of the surgery with the same equipment I came into it with. I don't have any children, but if that was going to be a possibility down the road I'd still like to be able to do that if that was even a concern, which it could be it depending on the type of surgery that's done.

Andrew Schorr:
Now, we're going to describe in a minute robotic surgery, but that's what you had. So minimally invasive surgery with Dr. Lin operating robotic arms, if you will, to just have little incisions and then take two fibroids out. And they were not small, were they?

MJ:
No, no. Actually, that was the really curious thing about it. One fibroid, I think Dr. Lin had described it as the size of a cantaloupe, and the other one about the size of a baseball. And that's kind of interesting because I'm not that big a person, so for him to be able to take those fibroids out with very small incisions, I mean, I have four incisions that are each about an inch. So I told him, I said, you got that out of this little tiny hole, you're not a surgeon, you're a magician.

Andrew Schorr:
Amazing. And we should mention that while you had the surgery, minimally invasive, I think you stayed overnight, did you?

MJ:
Yes. It was just an overnight procedure. I was in surgery first thing in the morning, and it was a very long surgery, about six hours. I'm sure Dr. Lin will have vivid memories of that. And I was home the next day. And I was actually laid up just for a couple of days, really just taking it easy and giving my body a chance to recover and—but I was playing volleyball within about a week.

Andrew Schorr:
That's—that's incredible. And since then you've never looked back, you're an active woman and--

MJ:
Yes. I had no issues whatsoever. Actually, I was planning a trip at the—probably within four weeks, I think it was, to go to Cub's spring training, and I wasn't sure if I'd be able to fly. I do like to travel quite a bit. But I had no qualms at all. I was perfectly fine to travel.

Andrew Schorr:
What a great story. Well, let's meet your doctor. That is Dr. Alexander Lin. Of course, he's an obstetrician/gynecologist at Northwestern Memorial Hospital. He's an assistant professor of clinical OBGYN at Northwestern University's Feinberg

School of Medicine. Dr. Lin, so first of all you got to hear a story like this and it makes you feel good to be a doc, right?

Dr. Lin:
Yes, MJ's story and case was really, you know, really a good feeling, a good win for everybody.

Understanding Gynecologic Conditions

Andrew Schorr:
All right. So first of all just for people who aren't familiar, when we talk about fibroids, which are not uncommon in women, what are fibroids?

Dr. Lin:
Sure. So fibroids are the most common benign tumor growth in women that involve their uterus. It is uterine muscle that enlarges the uterus, and in MJ's case her uterus was about the same size as somebody who would be about five months pregnant.

Andrew Schorr:
Wow. Wow. So what was the old way of removing them? It was major surgery, wasn't it?

Dr. Lin:
Sure. So in a woman who wants to retain her uterus, the surgery that's traditionally done is called an abdominal myomectomy, so making an incision, you know, at least the size of a C section incision. Many times they need to go up and down on the tummy, a vertical incision, to then expose the uterus with the fibroid or fibroids and then to use traditional scissors, scalpels, clamps, to carve the fibroid away from the uterus and then use suture material in sewing and reconstructing the uterus back together.

Andrew Schorr:
Now, I want to rattle off some of these other conditions where this whole minimally invasive approach comes into play. So fibroids is one [condition]. Some women can develop masses or cysts on their ovaries, so that would be another one, right?

Dr. Lin:
Yes.

Andrew Schorr:
Ovarian cysts. Endometriosis is in the lining of the uterus, is that right?

Dr. Lin:
Well, endometriosis is a condition that we think that it's cells of the lining of the uterus which is—which is now outside of the uterus covering either the ovaries, sometimes the intestine, sometimes the bladder, and just all the shiny surfaces of a woman's abdomen and pelvis. And it can cause infertility. It can cause chronic

pain and very painful periods.

Andrew Schorr:
Now, you mention about pain, so pelvic pain would also be another indication where there could be minimally invasive surgery?

Dr. Lin:
Yes. Yes, so when we talk with minimally invasive surgery basically we're meaning doing the surgery or accomplishing something surgically without making a big incision, just making little small incisions and using a fiber optic camera.

Andrew Schorr:
And then also two other ones, abnormal bleeding, so sometimes there's something you could use it for that. And also I understand there can be uterine polyps.

Dr. Lin:
Right. And then that would be using a scope more looking inside the uterus, so not a laparoscope but something called a hysteroscope where we're using a scope just naturally going from the vagina up into the uterus through the cervix, through the natural opening of the uterus and taking care of any bleeding problems, sometimes fibroids, sometimes polyps.

Andrew Schorr:
So, Dr. Lin, what's enabled you, your peers around the country and at Northwestern to do so much of this now in a minimally invasive way?

Dr. Lin:
Well, I think it's a couple of things. I think one we're fortunate with just sort of technology allowing us to do the surgery and developing, and whether it's doctors developing or equipment companies developing, instruments that allow us to sort of miniaturize our instruments so that we can make little small incisions on patient's abdomens and going inside and being able to do what we used to have to do with large incisions and large instruments.

Andrew Schorr:
So you have bright lights, cameras, in a sense, and you go through these little holes, able to do what you need to do, and then if you're taking things out be able to remove the tissue through these little holes as well.

Dr. Lin:
Correct. Correct. So, for example, in MJ's case it's true that her fibroid tumors, she had two of them, you know, one was the size of a cantaloupe, the other one the size of a baseball, and with the instruments that we have we can not only disconnect the fibroids from the uterus, it's very important to be able to sew the uterus back together so that the uterus is strong and has the same integrity as it had before. So if MJ had chosen to be pregnant then it would be safe to carry the pregnancy.

And then we have other devices, very technically advanced devices that allow us to trim the fibroids into very small, skinny strips, and to remove them out through these small holes.

Advantages of Robotic Surgery

Andrew Schorr:
Wow. So let's talk about the addition of the robots. So we understand about these laparoscopes that have been used now for a number of years, small incisions, but now you're sitting at this control panel, if you will, using this robot to operate some of that. In the case of, let's say, with the fibroid surgery what's the advantage of that?

Dr. Lin:
Sure. So the robot basically allows us a whole new generation of more sophisticated instruments. The standard laparoscopic instruments are basically things that we can control with our hands, so they're like little scissors on long sticks, and so, you know, we can open and close them like a pair of scissors. We can turn them sort of on their own axis, but one thing is we really can't make them bend.

Now, with using the robot, we're able to design instruments that might be very complex to control with just our hands but now we have these instruments that can not only open, close, turn, but can also bend and behave just like your own hands. And the robot then is technology that allows me to sit in this console and to move my hands, and that tells the robotic arms how to control these instruments, and the instruments then mimic what I'm doing with my own hands behind the console.

Andrew Schorr:
So in a way it's like putting your hands inside the abdomen without needing the big incision to get there.

Dr. Lin:
Exactly. Exactly. So many people, including myself, feel that robotic surgery is sort of—it's a combination of laparoscopic surgery, so it is laparoscopic, meaning small incisions, using a camera, and then looking on a screen as we—as we see through that scope and camera, but then the ends of the instruments that you're operating, you're actually doing the same motions you would do if you had your own hands in there with a big incision. So it's a nice way of combining both how you would do things with your own hands and miniaturizing everything so we can do this laparoscopically.

Andrew Schorr:
All right. Let's go over the benefits for patients. So first of all we talked about much smaller incisions, and that's desirable for anyone, but it's more than that, too, isn't it? It's less time in the hospital, less bleeding. I know people worry about the risk of infection. Take us through that.

Dr. Lin:
Sure. Absolutely. Whether it's a hysterectomy or a myomectomy or removing an ovarian cyst, when you compare doing the identical surgery either open--so the old-fashioned way with a bigger incision, versus laparoscopically with or without the robot--one [advantage] we see is that there is a significant difference in blood loss in favor of doing things laparoscopically or minimally invasively. Certainly cosmetically patients like having smaller incisions.

But I think the biggest benefit is really how quickly patients bounce back. Everybody's busy. Most people have occupations or have families that they need to get back to help and don't have time to really convalesce for a long time. So with MJ's example, had it been five years ago that I was doing her surgery she probably would have been in the hospital four or five days, but more importantly would not have been fully functional for four to six weeks as opposed to just one or two weeks. So the biggest advantage is really how quickly patients recover. And then with smaller incisions there's a lot less complications with the wounds breaking down or getting infected.

Andrew Schorr:
Wow. It sounds like a wonderful win. You must be excited that you have these tools, the addition of the robot and the range of procedures you can do this for now. I mean, it's—sounds like it is good for everybody.

Dr. Lin:
I think it's great. And most importantly, as gynecologists we're here to provide the best care for women and to advance women's health and women's care. And so these tools will continue to evolve and get that much better. You know, MJ had mentioned that the surgery, it did take a long time. It did take close to six hours, but it's because it's tricky getting such a large thing out of a patient's body through a small hole, and so we're getting better instrumentation in terms of extracting the tissue that we're removing. We're getting more precise instruments in terms of coagulating blood vessels, dissecting tissue, dissecting the diseased tissue away from healthy tissue. So it is really exciting, and it's great when patients come in with a problem and then, you know, we can fix it and they can be back to their normal lives very quickly.

Andrew Schorr:
Doctor, this shift that's going on brings up a question for me. I imagine there was a time when you were following a woman's condition, endometriosis, bleeding, whatever it may be, and the option was to do open surgery, and you and the patient were maybe delaying it because it was not a trivial thing. And I'm not saying it's trivial now, but it sounds like, does it move the discussion about minimally invasive surgery, does that come a little earlier now?

Dr. Lin:
I think for many patients it does because—and ultimately I think it helps the patient. So if we take the example of fibroids, and if the patient is already having symptoms with their fibroids it's pretty clear that those symptoms are going to get

worse over time and the surgery is going to be more difficult over time, and the potential for complications and blood loss increases as her fibroids or other tumors are getting bigger and bigger.

So if a patient would be more likely to intervene earlier knowing that her recovery is going to be a lot faster, then ultimately I think that's going to save some patients potential complications because they may have been tempted to delay their surgery because they weren't able to take the amount of time they thought they would need to recover from a large surgery.

Considering Your Options

Andrew Schorr:
Now, of course, everybody's case is different, and we're talking about the benefit of minimally invasive approaches for these gynecologic procedures, but I imagine there are some times when you say to a woman, "Yes, we have these tools but in your case we need to do it differently." So how do you decide? Maybe you could give us some examples when as good as this is this may not be right.

Dr. Lin:
Sure. Sometimes just the absolute size of the tumor that we're trying to remove might preclude us and it may not be in her best interest to do it in a minimally invasive fashion. So there are times in which I'll tell a patient, you know, your uterus is just too big. I can't safely do this. I can't put a camera in and have enough room to see what I need to see to proceed with the surgery safely.

There are times in which it's not benign, where we think there could be cancer. Now, there are some gynecologic cancers where we do treat them with minimally invasive surgical techniques, but there are other gynecologic cancers in which the risk of not doing the surgery completely or potentially spilling cancer in the patient's abdomen and therefore spreading the cancer might be too great of a risk, and traditional surgery definitely still has a place in our toolbox and there are certainly times in which it's not appropriate to do laparoscopically or in a minimally invasive way.

Andrew Schorr:
All right. A question about hysterectomy because I know that's such a common procedure. So some women have heard that a hysterectomy can be done vaginally, so talk about that versus small incisions around the abdomen and how you decide.

Dr. Lin:
Sure. So I think most people still believe that the first preference is if you can perform a hysterectomy—which means removing the uterus, not necessarily removing the ovaries with the uterus but just removing the uterus—if you can perform that vaginally that is probably the best approach for a patient. Whether or not you can accomplish the surgery vaginally, which means basically we're disconnecting the uterus from the patient's body and removing it out through the

vagina such that there are no incisions on the patient's abdomen, it depends on the size of the uterus. It depends on the experience and expertise of the surgeon. It depends on whether or not the patient has had previous surgery, or if there is a condition where she could have a lot of scar tissue inside her abdomen around her uterus which may not make it safe to operate through a small hole from the vagina. But if you feel that the patient is a good candidate that's probably the best way, the fastest recovery and the least complication rate.

If you don't feel like you can safely do it vaginally because of fear of scar tissue or you think the size of the uterus might make it not the safest for you to be able to disconnect or secure the blood vessels that bring blood to the uterus from the vaginal approach, then you would consider using the laparoscope with or without the robot to help you get a panoramic view of the patient's abdomen, see if there could be any complications with trying to do the surgery vaginally, and then if there are areas in which the laparoscope can help you to ligate or seal off the blood vessels that bring blood flow to the uterus such that you won't have bleeding problems in removing the uterus vaginally, then that is a far better option than doing an open, you know, with a big abdominal incision.

Andrew Schorr:
Thanks for explaining that. I have another question I want to ask you about. As women get informed, let's say, about fibroids, we've been learning that there are a range of approaches. So, for instance, another approach for fibroids would be to cut off the blood flow to the fibroids. So for you as a gynecologist at a big university hospital like that, all the options are on the table, whether it's something you do or another specialist there who you work with?

Dr. Lin:
Yes, so what you're referring to is uterine artery emobilization, and that's an excellent procedure. And, you know, I would say, I would estimate maybe a fifth of the patients that I see who have issues with their fibroids I end up referring to the interventional radiologists. Those are the—these are special radiologists who perform this uterine artery embolization. The uterine artery embolization is an excellent, excellent procedure where basically the patient has got a large uterus or large fibroids and you just need to shrink it some. Or they have really heavy periods and you need to decrease the amount of bleeding they have with their periods.

It's not a good procedure for people who want to have children down the road because you might damage some of the normal uterus, although there are people who have gotten pregnant and have had successful pregnancies after uterine artery embolization. It's not our first choice in somebody who wants to have babies down the road. But it's very low complication rate and you expect the uterus to shrink to about 50 percent its original size after the uterine artery embolization.

Andrew Schorr:
So, MJ, when you met with Dr. Lin all the approaches were put on the table, and then you made a choice in discussion with him on what you felt best for you.

MJ:
Yes. We were talking about the—I don't know your technology, your technological terms for it, but basically causing a clot to cut off the blood supply to the fibroids. We talked about doing that and that seemed like—originally I was thinking of going that route, but I know that I have low blood pressure, and occasionally I get migraines and I remember an internist telling me that my circulation is not perfect. It's okay, but it's not perfect. And I thought in my mind, not good circulation, causing blood clot, hmm, that doesn't sound like a good idea. Let's do something else.

Andrew Schorr:
Right. And you were very pleased with the way it worked out.

MJ:
Oh, very much. Very much. I was back to, like I said, playing volleyball. I missed a total of eight days of work.

Andrew Schorr:
Dr. Lin, so today it sounds like you have a broad range of options for many of these pelvic, gynecologic conditions, and that's part of the discussion--what is a woman's individual situation? And at a facility like yours where you offer everything, how is it individualized for her?

Dr. Lin:
Right. So, you know, we discuss what her ultimate goal is. So if we go back to the patient with a large fibroid, if her ultimate goal is to have a uterus be back to as normal as possible, well, then we need to figure out some way of removing the fibroids. If her goal is to miss as little work as possible, if she just needs some relief from the pressure or pain of her fibroids, well, then uterine artery embolization might be the best choice for her. If it's somebody who says, Dr. Lin, I am tired of having periods, I don't want to have any more children, I never want to have any more bleeding, and I can afford to miss a few days of work, then that patient actually a hysterectomy ends up being the best choice because that's going to completely eliminate the problem. So we do very much try to individualize each patient's care plan.

Andrew Schorr:
MJ, this dialogue that went on for you at Northwestern, you felt they were listening to you as you talked about your needs?

MJ:
Oh, it was great. I haven't had a surgery before, this was first for me, so I didn't have anything to compare it to, so I was very interested in all the procedures. And everyone that I met at Northwestern, all the doctors and nurses and technicians, everybody was very professional. They were very informative. They listened to me and what I needed, and I felt it was really the top-notch care. I was referring to Prentice Hospital where my surgery took place as Prentice Hotel. They took good

care of me.

The Potential of Robotic Surgery

Andrew Schorr:
So, Dr. Lin, where are we now with where this field is moving? It sounds like the options, the techniques, the less trauma, all that is moving in that direction to benefit women.

Dr. Lin:
Yes. I think, you know, some of the areas that we're moving toward are, you know, how can we globalize this, can we use this technology because, yeah, I'm in the room. If I'm operating robotically I'm physically in the room. I was in the room with MJ. Did I have to be? Actually, I didn't really even have to be because it's electronic connection between the console and the machine and MJ. And as scary as that may seem there may be certain areas, there may be areas in third world countries, there may be areas where this type of technology or the surgical skill is not readily available, but those women need the same type of care. So I think it will be interesting to see in our lifetimes whether or not potentially I could be operating on somebody in Sub-Saharan Africa and taking care of their fibroids in a way that they couldn't have taken care of before where I don't have to fly to Africa to do their surgery.

Andrew Schorr:
Right. Well, that would be great, but even a distant area of the Midwest where they don't have someone with your experience--

Dr. Lin:
Exactly. Even within our own country. Southern Illinois—I live in Chicago. Even Southern Illinois where sometimes patients have to drive very far to find a doctor.

Andrew Schorr:
So there you'll be. There will be a hologram of you, and you'll be operating the equipment, but the patient will be at a community hospital somewhere, but they'll get the benefit of your expertise. That would be cool.

Dr. Lin:
Yeah. I think so.

Andrew Schorr:
Yeah. Well, Doctor, so it sounds like for women who come see you, though, at Northwestern Memorial you have a lot of really fine options now where they can go on with their lives, these conditions can be managed or eliminated and with a lot less risk, less trauma, less time in the hospital, and they can go about their lives. Did I get it right?

Dr. Lin:
I think so. I think you hit it right on.

Andrew Schorr:
Okay. So, MJ, there are women listening who are saying, hmm, we've been following developing a fibroid, or I've been having all this heavy bleeding, I'm sick of it, or whatever the other issues are, I've been living with endometriosis. Knowing that you're not a doctor, but as far as them looking into it to see could one of these minimally invasive approaches help, what would you say to them?

MJ:
I would say definitely consider it. I mean, you have to know your own body and know what your—how your life would be affected. And ask a lot of questions because then you'll use the information to make the right decision for you. But the minimally invasive was just—it was perfect. I mean, I don't know how a surgery could have gone better for me.

Andrew Schorr:
Well, we wish you well.

MJ:
Thank you.

<u>Closing Comments</u>

Andrew Schorr:
There may be White Sox fans listening, but you're a Cub's fan. I'm going to wish you well. And I'll see you at spring training sometime, okay?

MJ:
You probably will. Thank you.

Andrew Schorr:
Okay. Well, thank you so much, MJ, for being with us. And Dr. Alexander Lin, a very devoted gynecologist and using these advanced techniques at Northwestern Memorial, thank you, sir, for all that you do.

Dr. Lin:
Thank you.

Andrew Schorr:
All right. Very informative. I know for me as a guy because there are a lot of women I care about and they have these health concerns come up, but I think for our women listening, a lot of great information here. Thank you so much for joining us. I'm Andrew Schorr. Remember, knowledge can be the best medicine of all.