

Ovarian Cancer Prevention

Webcast

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Diljeet Singh, M.D.

Ruth Crane

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Ruth's Story

Andrew Schorr:

The cause of ovarian cancer is not known. Risk factors include age, genetics and lifestyle. Coming up, a gynecologic oncologist from Northwestern Memorial Hospital in Chicago will discuss what women can do to reduce their risk of ovarian cancer. You'll also hear from an ovarian cancer survivor. It's all next on Patient Power.

Hello and welcome to Patient Power sponsored by Northwestern Memorial Hospital. I'm Andrew Schorr. Well, we talk a lot about breast cancer, women think about that a lot. It's not as common, but a very serious cancer is ovarian cancer. On this program we're going to talk about what you can do to lower your risk of ovarian cancer. We're also going to talk about what could be the early signs that you definitely want to get checked. And we'll also understand what can be done now, what are we learning about ovarian cancer. One in 70 American women will develop ovarian cancer, certainly a very lethal one, so we want to do our best to give you information to help you prevent it or catch it early, which can make all the difference.

I want to introduce you to Ruth Crane. Ruth is 59, lives in the Riverwoods area north of Chicago. Ruth, you were diagnosed with ovarian cancer in 2002. Here we are now as we do this in 2010. You are a survivor and I know very grateful for the care you received.

Ruth:

Yes, very grateful, and I consider myself very lucky.

Andrew Schorr:

Let's talk about the way it started. So in 2002 I understand you were having stomach pain.

Ruth:

Yes. It was about September, and I had had stomach pain for a few weeks, nothing that would take me to the emergency room, but just annoying. And finally after a few weeks of that I decided to see my internist. And he just felt that there was something going on, but he wasn't sure what, and he suggested I go to the emergency room to check the possibility of an appendix problem. And so I did, and I ended up being in the hospital for a few days, and after many diagnostic tests it was basically inclusive, and I went home.

Andrew Schorr:

But eventually you had a blood test looking for cancer cells, and that was high.

Ruth:

Yes, when I had been home another week or so I continued to have the pain, and I called my gynecologist and she was pretty sure there was something pretty serious going on. And I had an internal exam, I think it was a sonogram of some sort, and the CA-125 test.

Andrew Schorr:

Right. Well, eventually then you got to Northwest Memorial to Dr. Diljeet Singh, who is a gynecological oncologist.

Ruth:

Right.

Andrew Schorr:

And it became clear that there was a cancer growing inside you, and you were eventually--you were scheduled for surgery. Then another symptom developed. You had the bloating, right?

Ruth:

Pretty severe bloating, yes.

Andrew Schorr:

And further scans were done, and then you had the surgery pretty quickly.

Ruth:

Yes, I was one of those unfortunate ones that, the CAT scan was inconclusive, so, I believe in many ovarian cancer patients the CAT scan is very useful, but in my case it wasn't. So I did have a PET scan done.

Andrew Schorr:

All right. You had the surgery and chemotherapy.

Ruth:

Yes.

Andrew Schorr:

And eventually another surgery just to get rid of some scar tissue because you had extensive surgery.

Ruth:

Yes.

Andrew Schorr:

How have you been doing since then? We are now really seven, eight years later.

Ruth:

Yes. I'm great. I'm very healthy and very, very grateful. Yes, I'm in good condition.

Andrew Schorr:

And with a new grandson you can celebrate, Cooper.

Ruth:

It helps.

Andrew Schorr:

I bet it does.

Ruth:

Yes.

Andrew Schorr:

Well, we wish that most women could be in this situation when they're diagnosed with ovarian cancer such as that. It's a tough go, so certainly it's a celebration, how you've done.

Let's meet your doctor, Dr. Diljeet Singh. Dr. Singh, first of all about Ruth's case. I understand the odds often are not good when you discover that there's extensive cancer, so we really can celebrate how things have worked out for Ruth, can't we?

Dr. Singh:

Absolutely. I mean, I would consider Ruth cured. Ovarian cancer is a tough enough cancer that she'll always be followed with exams and CA 125s, but sort of having gotten well outside that five-year mark makes me feel really comfortable that we can focus on other, non-cancer health issues.

Andrew Schorr:

Right. Like take care of your heart, exercise, eat well.

Dr. Singh:

Absolutely.

Andrew Schorr:

Dr. Singh, so we heard about what Ruth did in pursuing it and with her doctor. Did any of that help, or what are the factors there that maybe have some lessons for all of us?

Dr. Singh:

I think the thing that Ruth did that was really important was persist, that when she noticed that something had changed in her body, that something was different, she sought out her internist, who, you know, started her in evaluation. She continued

the process with her general ob-gyne, who was really sensitive to thinking about rare things like ovarian cancer. And so I think that kind of paying attention to things that are different about your body is a really, really important lesson.

I think because she did all those things, when we did her surgery we were able to remove all of the visible tumor to have something called an optimal debulking that gave her the best chance of responding well to chemotherapy. But I really think that first step of sort of recognizing that something different is happening in your body is a really important one.

Signs and Symptoms

Andrew Schorr:

Let's talk about that for a minute. Do we now recognize some early signs of ovarian cancer, because so often in the past it's missed, and then it's much later and the disease is much more advanced?

Dr. Singh:

Well, I think we recognize that there were symptoms that are associated with early ovarian cancer, even stage 1 and stage II ovarian cancers. We know that pelvic or abdominal pain, bloating, increase of abdominal size, difficulty eating, feeling fuller quickly, and having those happen more than every couple days, so more than about 12 times a month, but having that be a new symptom for a woman where she hasn't had it for longer than a year. Now, women listening to this might be like, oh, my god, I just heard a lot of stuff that I have. Does that mean that I have ovarian cancer? And the answer to that is no, and that's kind of the couple steps we have left in refining this issue of how do we figure out, you know, how exactly to use the symptom, the observations that women make, and then figure out who needs more tests.

So we're still in process of developing an actual symptom index where women could fill it out, sort of like a card in their primary care doctor's office. That, of course, is different from Ruth, who was having symptoms that demanded to be evaluated, as opposed to sitting down in your doctor's office when you think you feel okay, but you read a card that says, have you had any of these things recently, and if you have can you figure out how often and if they're new for you. So we're still in step with that process. But I think the bottom line of a new symptom for you, don't get into the details of which one it is, but it happens at least every other day and it's new to you, that's something you should bring to the attention of your primary doctor.

Lowering Your Risk

Andrew Schorr:

All right. Now let's go back and talk about prevention. So we think about early detection in breast cancer, mammography, self exams. We talk about healthy diet and exercise related to lowering your risk of heart disease. Are there some things

that women can do to lower their risk related to ovarian cancer?

Dr. Singh:

There's a lot of evidence that the same sort of what I call triumvirate of, you know, things that we can do to prevent or decrease our risk of cardiac risks is the same for cancer and actually for a wide spectrum of cancers. Sort of, having healthy diet, doing regular exercise with a combination of those things, have someone have a normal body mass index, and then doing things to manage stress. All of those things, diet, exercise, stress management, have been linked to cancer incidence the same way they have been linked to heart disease. And there is definitely evidence within the ovarian cancer literature that tells us the same thing, that being overweight, that being less physically active, that having foods that we consider higher risk or inflammatory kinds of foods in your diet can increase your risk of ovarian cancer.

Andrew Schorr:

What about vitamin D? So we talk about vitamin D a lot related to osteoporosis and making sure women get vitamin D, but does that play a role at all in reducing your risk of ovarian cancer?

Dr. Singh:

Absolutely. Starting at almost 30 years ago there started to be some information kind of coming in about differences in ovarian cancer risk depending on how far away from the equator you lived, with the lowest rates closer to the equator and the highest rates as you moved away. And as we started looking at this, people started making connections between what could be the link between, you know, sun exposure and cancer.

And vitamin D is a really, really interesting vitamin in the sense that it almost has some steroid or hormone kind of functions, but it seems to help cells differentiate or do the things they were supposed to do. So there have been some studies linking people having low vitamin D to having a substantially higher risk of ovarian cancer, and we're just starting now doing studies supplementing women with vitamin D to see if we can decrease their risk.

And so the point is, though, sort of although we're not there in terms of knowing all the answers, the things that I would recommend that women do is that they have their vitamin D level checked. It's a vitamin D 3 level. And the thing we figured out is that you can't always relate it to how much you're in the sun or whether you're taking replacement, that our body chemistries are so different, that having your doctor check a level and then replace you if your levels are low are important things to do.

Andrew Schorr:

What about the pill? Can taking a birth control pill have any protective effect?

Dr. Singh:

So there's sort of no studies left to do on this. There's very clear, clear data that says oral contraceptives decrease the risk of ovarian cancer, and they do it substantially. One year of oral contraceptive use decreases the risk of ovarian cancer by 10 percent. Five years or more can decrease the risk somewhere between 30 and 50 percent. That's really kind of amazing when you think about a cancer that's tough to identify and then tough to cure.

Obviously, oral contraceptives have risks associated with them, and so that's a conversation that has to happen between a woman and her healthcare provider. But we run into a whole bunch of other benefits to oral contraceptives too: Less bleeding. Some women have less acne. We think we see less anemia. And so for a number of reasons I really encourage women in general to at least talk about it with their healthcare providers.

The way oral contraceptives work is related probably to the progesterone that is in oral contraceptives. We think progesterone probably has a protective effect, and we think that's the same reason women who have children are less likely to get ovarian cancer because progesterone is the main hormone of pregnancy, so again at the time there's a lot of progesterone around.

Andrew Schorr:

And breast feeding, does that help?

Dr. Singh:

Exactly. Breast feeding is another one. We're not sure if that works through that same progesterone-related mechanism. There's other reproductive health factors. So having a tubal ligation or hysterectomy will also decrease a woman's risk of ovarian cancer. It's kind of amazing. A tubal ligation probably decreases a risk by about 30 percent, and that doesn't completely make sense to us, and whether that's because it shifts blood flow or changes something else we haven't quite figured out. But, again, it's--again, I would never recommend someone have their tubes tied or have kids to prevent getting ovarian cancer, but it sort of helps us understand the process.

Andrew Schorr:

Doctor, let's talk about women as they get older. Ruth was diagnosed at 52. So let's say as you're going through, have gone through menopause, you're not taking the pill, is there anything they can be doing, or does sometimes surgery come into play? Would there be a recommendation for a hysterectomy, oophorectomy? Where does that come in?

Dr. Singh:

Somebody who has average risk for ovarian cancer I probably wouldn't ever think about surgical interventions. The risks of general anesthesia, the complications that can happen at the time of surgery make it difficult to sort of say that someone just going through menopause should consider a surgery. That's really, really different from somebody who has an inherited predisposition that puts them at a

ten to 40 percent risk of ovarian cancer. In that setting the risks of surgery that are somewhere between one and two percent sort of are easily outweighed by the risk of getting ovarian cancer. But in the general population if we think about the risks of getting ovarian cancer are about 1.7 percent, we kind of are in the same range as the risks of surgery.

So the things that I recommend, one, is to have is a sit-down conversation with somebody who understands risks of ovarian cancer and try to do some kind of risk assessment. And that would be sort of talking a little bit about, have you been on the pill? Have you had a normal body mass index? Do you now? What are your eating habits? What kind of exercise do you do? What's your family history, thinking not just about ovarian cancer but also breast, endometrial, colon cancer, which can be related, and sort of using all of those things to figure out what a woman's risk is and then coming up with a prevention or an early detection plan.

Andrew Schorr:

Ruth, now, I understand you've learned that your grandmother on your mother's side died early of breast cancer, correct?

Ruth:

Correct.

Andrew Schorr:

And there was a thought your mother shared that maybe way back in Europe a great aunt had ovarian cancer, but we're talking about maybe where we don't have a lot of information.

Ruth:

Correct.

Andrew Schorr:

But you are Ashkenazi Jewish.

Ruth:

Right.

Andrew Schorr:

Let's talk about that population for just a minute, Doctor. Certainly there are many people around Chicago with that background. Is there a higher risk there or tests that can be done?

Dr. Singh:

There is. So there is a higher risk in that population of carrying something called a BRCA mutation. BRCA mutations are actually a number of changes in two different genes that predispose to both breast and ovarian cancer. And we think the BRCA gene changes are responsible for the majority of hereditary ovarian cancer, for something like 80 to 90 percent of hereditary ovarian cancer. The tricky part is

hereditary ovarian cancer is probably only about 10 percent, and I don't know that we've determined--you know, we've done some tests and the common mutations that are seen in women of Ashkenazi Jewish descent that could put them at risk for breast and ovarian cancer weren't present in Ruth, and so I'm not sure yet how to make that link.

I think the exciting thing in the world of genetics is that we're going to learn that there's genes that probably have a smaller risk associated with them. Maybe it's not 10 to 40 percent, maybe it's four to five percent. But as we start identifying those genes then we'll be able to identify women who might have a subtly increased risk of ovarian cancer, and again we might make different prevention, early detection or even treatment with something more interventional in that group of women as we identify those genes. We don't know them yet.

Andrew Schorr:

Now, I know at Northwestern you're the co-director of the Northwestern Ovarian Cancer Early Detection and Prevention Program. So who should consider consulting with that program? Who--what kind of risk would they have, risk factors where maybe they want to be consulting with you?

Dr. Singh:

So I think that there's two groups of women who should at some point interact with us. I think one is just a group of women who don't know what their risk of ovarian cancer is and wants that question answered. Between, you know, just meeting, whether talking to our research coordinator or our intake nurse, sometimes some questions about, hey, what is my risk, can be answered. Sometimes you have to come in and sit down and talk with us to really figure that out.

And so for some women it will be a one-time visit, where they come, we go through the things that we have been discussing during this time, and we ultimately say, you know what, your risk is generally the general population risk. Keep doing the good, healthy things you're doing in terms of eating lots of fruits and vegetables, eating healthy protein, eating healthy fats, getting exercise, managing your stress, and you're in a good place. Other women we might keep in our program, and typically those are women who either carry a known BRCA mutation, or they have something called Lynch syndrome, which is a syndrome, also an inherited predisposition that includes uterine cancer, colon cancer and ovarian cancer. There are some gene tests for that although they are not as well clarified and developed as the test for BRCA.

Women who have a personal history of breast cancer we believe have a slightly increased risk of ovarian cancer, somewhere between four and seven percent, so those are women who be in our program. Women who have a first-degree relative with ovarian cancer have a four to five percent risk of getting ovarian cancer, so those are women in our program. And then there's women who don't quite fit those rules, but then when we match out the whole family tree we think that they may fall into one of those categories that we would include in our program.

So again like a substantial family history of colon, uterine cancer, colonic polyps, might make us think about something like Lynch syndrome, or young ages of breast and--of breast cancer or bilateral breast cancer in the family. Another thing that's interesting is as we've learned more about inherited ovarian cancer and we've learned more about BRCA, we've figured out that this thing that we call ovarian cancer is probably really ovarian cancer and fallopian tube cancer and then something called primary peritoneal cancer, cancer that happens inside the abdomen of women, starts somewhere on the lining, but doesn't happen in men. And when we look at the tissue cells of those primary peritoneal cancers they are identical to the common types of ovarian cancer. So we think ovary, fallopian tube and primary peritoneal cancer are kind of in the same family.

There does seem to be an increased rate of fallopian tube and primary peritoneal cancer in women who carry inherited predispositions. So when someone comes to me and says, my mom had a fallopian tube or primary peritoneal cancer or my sister or my aunt, I think a little bit harder about the possibility of an inherited predisposition.

Andrew Schorr:

So, Doctor, when somebody sees you and you identify maybe a higher risk, how do you follow them, and how frequently, typically?

Dr. Singh:

So this is sort of a part where I feel like we still need a lot of work, we have a lot of work to do. So, so far it's not clear that we really have a good way to pick up ovarian cancer early when it's a hundred percent curable or even 90 percent curable. The methods that we have and the methods that we're studying so far have showed that we seem to still pick up a lot of ovarian cancers later than we want to, although even when we pick them up at later stages when it's picked up in a screening program the cure rates may be better than when we pick them up when someone comes in with problems.

So right now in our program we are doing a version of a symptom index that we talked about earlier. We do physical exams or we check lymph nodes. We do breast exams, abdominal exams, and pelvic exams. And we do transvaginal ultrasounds, looking really carefully at the ovaries, and if there are any cysts checking blood flow and doing some other evaluations that we think help us distinguish cancers from benign or non-worrisome cysts.

Currently we're doing regular or blood work that we kind of share with people, the BRCA125, but there's a number of experimental blood tests that we are doing. There's a blood test called HE4 that in some women who are going to surgery anyway seem to help distinguish between cancer and non-cancer. We're working with a really interesting company that's looking at a panel of nine markers including CA 125 and HE4. There's a couple of other tests in there, something called glycodelin and mesothelin that are promising.

You know, ovarian cancer is tricky. When we look at it under the microscope there's actually several different appearances or histologies in women who have ovarian cancer. We have heard the term papillary serous or mucinous or endometrioid or clear cell, and so in a way we're sort of when we start thinking about looking for it we're looking for a bunch of different things. So we think about blood tests, the idea of using a panel of markers where one of them is good at papillary serous--specifically, CA 125 is pretty decent at pap serous--but trying to find markers for those other types that together they might give us the ability to pick up ovarian cancer when it's curable.

Andrew Schorr:

Well, what I hear, as you discuss this, is your experience and wisdom. Ruth, I know you felt when you got to Dr. Singh you got to the right place.

Ruth:

Oh, absolutely. I was confident after my first appointment and visit with her that I was in the right hands no matter what the outcome was going to be.

Andrew Schorr:

So Dr. Singh--

Dr. Singh:

Thank you.

Andrew Schorr:

--if a woman is concerned about this or if there's a red flag from her gynecologist that this needs to be investigated further, going to a clinic such as yours where you specialize in this seems to be a good course to take.

Dr. Singh:

So if somebody is told that there's a possibility of ovarian cancer, it really, really is important that they be seen by a gynecologic oncologist and they be seen somewhere where when they have their surgery there's access to something called frozen section, or an evaluation of the tissue to determine if it is ovarian cancer, and that the person who is doing their surgery has experience with something called ovarian cancer debulking. We know that that first surgery is our best chance to start improving the chances of being cured and getting out as much cancer as possible at that surgery and then having people have access to what we'd consider the best drugs and the best way of getting drugs.

So since Ruth has been cured of cancer we've actually developed something called intraperitoneal chemotherapy, and it's become again a part of the what we call first-line therapy for ovarian cancer. There's a bunch of research looking at a new drug called bevacizumab that's shown some promise. We're not done with all the research, and I don't know that we have the answer yet, but for now at least being able to have access to that drug through clinical trials may help some women. So I

think it is, it's really important if someone says to--if a woman hears, I think you might have ovarian cancer, that you see an ovarian cancer specialist and that you have access to all of the surgical, medical techniques that we can to cure cancer.

I think the other thing that's exciting for me about working at Northwestern is we've sort of started to understand that managing symptoms and quality of life during the course of a cancer treatment helps women to get through their treatment better and improve their chances of being cured because it keeps them on schedule. So we've been using things like diet and exercise, integrative medicine approaches like acupuncture and massage, to try to help women get through the treatment for ovarian cancer that can be pretty tough.

Andrew Schorr:

And you mentioned one word earlier when you were talking about prevention. You mentioned about stress. Is there any study now that stress makes a difference?

Dr. Singh:

It's a tough thing to study in people, right? We're pretty good at studying stress in rats because we can stress rats and we can, you know, eliminate the other things in life. And I would just love to try to get a hundred women in a room and be like, well, half you guys, I want you to have no stress--

Ruth:

I want to be one of those.

Dr. Singh:

Yeah, you'll get on that list. And I'll have to pay everybody and buy them a house and a car. So not to make light of it, but it's tough to study stress. So the ways we study stress are in animal trials and then the way people report stress. And then actually there's some petri dish kind of studies that we can do. So we can make small interventions in people's lives and look at things like their cortisol levels or their blood pressure. Or there's different things that we can measure to try to look at immune function, something like NK, killer cell function.

And if we look at individual studies like that we do see that things like really small interventions, like using a guided-imagery CD or somebody being involved in a restorative yoga class, that those things can change those kinds of measurements, can change their cortisol level or can change their other mediators of stress or can improve their immune function. So those are like indirect ways of saying we think that stress contributes to this process.

Andrew Schorr:

All right. So I know my wife is going to be going to yoga class.

Dr. Singh:

Good.

Andrew Schorr:

She's going to eat right.

Dr. Singh:

Yes.

Andrew Schorr:

She's going to exercise.

Dr. Singh:

Yes.

Andrew Schorr:

Keep her weight down.

Ruth:

Right.

Andrew Schorr:

Look at her family history, and if she has any concern or subtle changes going on over time she's going to talk to her doctor. Did I get it right?

Dr. Singh:

You got it perfect.

Andrew Schorr:

Okay. And she's a professor, so I'll get a good grade.

Okay. Dr. Diljeet Singh, I want to thank you so much for all you do at Northwestern. I want to recommend your program if women have concerns. That's the Northwestern Ovarian Cancer Early Detection and Prevention Program.

And, Ruth, I want to give the last word to you. What would you say to women--you were proactive, and your doctor credits you with that. What would you say to women if they have concerns?

Ruth:

The most important piece of information is what Dr. Singh already mentioned, and that is know your body and listen to your body. And if you feel that something is not quite right and persists, see your doctor. There's usually something wrong.

Andrew Schorr:

And what's your outlook with your grown sons and your grandchild now? Putting all this in the rearview mirror, right?

Ruth:

I do think of myself as a survivor, but I don't think of myself as a person who is in

view of getting it again, a recurrence. It just really honestly does not even enter my mind. It used to, of course, for the first years, and now I just feel like I'm like anyone else.

Andrew Schorr:

Well, good for you, Ruth. You've got that kid's bar mitzvah coming up, right?

Ruth:

Well, in a few years.

Andrew Schorr:

All the best to you, Ruth Crane.

Ruth:

Thank you.

Andrew Schorr:

Thank you for being with us. And, Dr. Diljeet Singh, thank you for what you do. Are you hopeful that we can do better as we get more information about ovarian cancer, both prevention, early detection and treatment?

Dr. Singh:

Absolutely. I think we already are doing better. And I think even if we just took the lessons we already have we could change the rates of ovarian cancer substantially. I think it's all very exciting, and there's lots of things that women have access to that they didn't have in the past.

Andrew Schorr:

All right. Well, hopefully we've given them great information today. Thank you for being with us.

This is what we do on Patient Power. I'm so grateful to Northwestern Memorial Hospital for helping sponsor this so we can connect you with you their experts and inspiring people like Ruth Crane. I'm Andrew Schorr. Remember, knowledge can be the best medicine of all.

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