Introduction

Andrew Schorr:
Inflammatory breast cancer, it's only up to two percent of the breast cancer diagnoses, but it can be very aggressive. It is critically important that you get diagnosed accurately and early, get treatment early and get to a specialist who is knowledgeable in IBC. You will hear from an inspiring patient who has been treated successfully and a world expert next on Patient Power.

Hello and welcome to Patient Power. I'm Andrew Schorr, and this program, like so many others we do, is sponsored by M. D. Anderson Cancer Center in Houston. So often, we've said time and time again, your first shot at treating your cancer is often your best shot, and when it comes to an uncommon kind of breast cancer, inflammatory breast cancer, that is so often true. And I'm going to introduce you in a second to a woman from Michigan who found that her treatment in Houston where there were researchers studying her type of breast cancer, inflammatory breast cancer, only two percent of the time is a breast cancer an inflammatory breast cancer, that made all the difference for her. And in a minute you'll meet her doctor too.

Let's meet Valerie Fraser first. Valerie lives outside Detroit in Huntington Woods, Michigan, and around New Year's, Valerie, 2007 you were noticing something unusual with your breast. What were those symptoms?

Valerie's Story

Valerie:
Yes. I actually woke up New Year's Day, and I was changing from my nightgown and I just noticed a very slight swelling in my left breast, and I thought it was unusual. I had never seen anything like that before in my breast, and so it alerted me to a possible problem. And initially I thought, well, this might be an infection, you know. That was my initial thought.

Andrew Schorr:
Now, we should mention, you're in your later 50s now, but you were in your mid 50s at the time. A woman who was much younger, nursing, might say it might be mastitis or something in that situation, but you were long past that. Your son is grown. So you go to your gynecologist, and what does your gynecologist say?
Valerie:
Well, I decided to go and get a well check, and actually my son was home from the school at the time, and I was busy with him. But I went in and had my well check with the doctor and I had told him on the phone that I had this slight swelling. And from the time, New Year’s Day when I noticed the slight swelling to ten days later when I did get the appointment, my breast got very dense inside. I could tell there was something very ominous going on, and at that point I was very, very concerned. And when I went to my ob-gyn and she examined me, she just turned and looked at me and, you know, her glance at me told me that there was something serious.

Andrew Schorr:
All right. But the point is you had been having regular mammography. There was nothing that had shown up I think six months earlier when you had your most recent mammogram, right? Those were always normal.

Valerie:
Right. I always had a normal mammogram. And I had my annual exams, and I was with the same doctor throughout.

Andrew Schorr:
You don't feel right about this. You pushed to go to a breast surgeon. What about then? Anything come up? And had you heard this term at all, inflammatory breast cancer?

Valerie:
No, I had heard nothing about it, and my ob-gyn said, well, we need to get imaging on this and suspected that it was an abscess. So I had repeated mammograms, which kept coming up inconclusive, nothing. Finally they did an ultrasound which showed two areas of concern, but even that did not appear to be a tumor. I asked them directly, is this a tumor and they said, no, no, it's not presenting like a tumor. We believe it's an abscess.

Andrew Schorr:
All right. But you were having antibiotics, not doing any good. Your husband does some research on the internet, comes across this term, inflammatory breast cancer. You look into it further, and I understand you did a lot of research real fast, which ultimately made you think that this was in fact what you were dealing with.

Valerie:
Once I went to the breast surgeon and continued on the antibiotics because they still believed it was an abscess, at that point I was alerted to the inflammatory breast cancer from my husband’s research. And I started to delve into it pretty much full-time. I just immersed myself into it and started reading studies and looking at what drugs had been used, cutting-edge therapies, what type of chemo
protocols were being used, and made a number of phone calls to the National Cancer Institute and various other organizations to find out more about it.

**Andrew Schorr:**
Valerie, you are an incredibly powerful patient, I would say, and you really found you needed to get smart on a rare condition. That ultimately showed you there was work going on at M. D. Anderson Cancer Center in Houston. Why did you want to go all the way from Michigan down there?

**Valerie:**
Well, as I proceeded and started to do the research I had seen that Dr. Cristofanilli had done some studies and presented at the San Antonio Breast Cancer Conference on a drug that I was very interested in at the time, which was Tykerb. And I was interested in that, and I was asking doctors in my home state about it, and I knew I wasn't going to be able to get it in Michigan, and that was my initial drive. But as I started getting my consults in Michigan and I saw that there really was not a consensus on treating this, I made the decision very quickly to go down to M. D. Anderson and speak with Dr. Cristofanilli.

**Andrew Schorr:**
Sounds like you’d agree with me when I use this quotation, your first shot is your best shot, when it comes to one of these serious illnesses, and you wanted to make that shot as good as you could.

**Valerie:**
Yes. I felt that, from my research that I had one shot, and basically that decision was going to be critical in saving my life.

**Andrew Schorr:**
All right. And we should say that we're doing this program with you really more than two years later, right? And what's your clinical situation now?

**Valerie:**
Correct. I'm currently no evidence of disease, and I'm doing very well. And I do continue on a targeted therapy, Herceptin, but I do very well with that. And I've had no evidence of the disease reemerging, which for inflammatory breast cancer is quite remarkable.

**Andrew Schorr:**
We're going to meet your doctor in a second. I just have one more question for you right now. Do you feel that your pursuit of connecting with the right specialist, the right treatments that were available, even experimentally, has to this point saved your life?
Valerie:
Yes. I believe that I have received the optimal protocol with regard to my treatment. And I think that there is a synergy to the drugs that are used and the way the drugs are administered, and it's very critical with inflammatory that that be done correctly.

A Difficult Diagnosis

Andrew Schorr:
Well, let's meet a doctor who has played a key role for you, and that is M. D. Anderson associate professor of breast medical oncology, and the director of the Morgan Welch Inflammatory Breast Cancer Research Program and Clinic at M. D. Anderson. That's Dr. Massimo Cristofanilli.

Dr. Cristofanilli, I know it does your heart good to hear Valerie's story. Tell us why is it so difficult to get an accurate diagnosis when, as best we know with this aggressive cancer, time is of the essence?

Dr. Cristofanilli:
Yes, because this is a quite different type of breast cancer. We are used to the idea that we can detect breast cancer by palpation, by physical examination or by mammogram, and this is quite different because it's extremely fast growing, does not present as a mass, and for that, physicians are not used to seeing this type of presentation. So the first reaction is this must be something different. This is not breast cancer. It must be inflammation, infection. So the first treatment that every patient really receives is always antibiotics, for a valuable period of time. Of course this delays the procedure to get a diagnosis. Even the procedure for the diagnosis is quite different in different parts of the country and depends on the dermatologist or the surgeon that gets involved with it, going from a skin biopsy, a core biopsy, a surgical biopsy till even a mastectomy in some cases.

Andrew Schorr:
Right, and it doesn't show up typically on mammography yet women, the public, many doctors are trained that when you think of breast cancer typically you will see it on a mammogram.

Dr. Cristofanilli:
Correct. So the only thing the mammogram sees if one is advanced is obviously the skin thickening. That is very critical and very important, but this is something that obviously can be seen clinically at that point. You don't need a mammogram to evaluate that skin thickening or to measure the skin thickening. There are other methodology, other imaging that are important in making a proper diagnosis, and we are trying to establish guidelines in that sense.
Andrew Schorr:  
We'll talk about your efforts and what you're doing at M. D. Anderson as far as getting consensus. Let's just mention that imaging. What imaging modality that is available would play a key role for inflammatory breast cancer when maybe it's not used for some other types of cancer?

Dr. Cristofanilli:  
So assuming that again the physician is not familiar with inflammatory but has a suspicion that this can be a cancer instead of inflammation or infection, the best way to image the breast is MRI. This is definitely accurate, describes the presence of tumor masses or nodular, usually multicentric, diffuse disease in the vast majority of cases with inflammatory breast cancer. So this is already a guideline. It's an indication that doing this imaging you may really escape the antibiotics altogether and just go straight to the biopsy. They can also detect very early on lymph nodes at various locations around the breast, not only in the axillae that are typically involved in the vast majority of patients with inflammatory. So this can guide the imaging of the breast and the biopsy.

Of course, once you have a diagnosis of invasive cancer you need to stage, make sure the disease is localized to the breast and lymph nodes, or is diffuse. Having a disease that is extremely rapid in growth, in particular can spread extremely fast, it's important to have the best possible imaging to detect metastases in the distant sites. And one of them, I think we've proved already the best of them, is the PET/CT. And that's very critical for the patient. So to understand if we have an invasive cancer, is this an inflammatory that presents with multiple masses, a lymph node involvement, if there is or not any metastases in the distance.

Treating IBC: Individualizing Therapy

Andrew Schorr:  
And all of that then determines what the treatment plan is. And typically surgery would not be the first line of therapy, right?

Dr. Cristofanilli:  
Absolutely not. This is the first important message. The inflammatory breast cancer cases are not treated with surgery up front. The disease is inoperable. It's already involved in multiple sites of the skin and also multiple lymph and other sides, so the surgeon cannot get clear margin with surgery. That's why it's important to start with the systemic therapies, chemotherapy or a combination with other agents based on the biology that of the disease established by the pathologist. And after a period of months and different cycles of therapy and very careful evaluation of the response then only at that time we can establish if a mastectomy is feasible and is possible.
Andrew Schorr:
All right. Let me ask Valerie a question. So, Valerie, you go down to M. D.
Anderson. You meet Dr. C, as you like to call him, and you definitely didn't have
surgery first. What did you have first?

Valerie:
Well, I had a protocol that was given to me along with Herceptin, and I believe that
I had an immediate response to the Herceptin which was given on day one to see
how I tolerated that.

Andrew Schorr:
How was your breast feeling on day one, and day two, after a night of Herceptin,
how did it feel then?

Valerie:
Well, I had quite a bit of swelling in my breast. It was red and warm and hot. And
I had the classic symptoms, which progressed with inflammatory which is peau
d'orange, I had the dimpling skin, and the retracted nipple. And after one
treatment of Herceptin when I woke up in the morning afterwards, all the swelling
in my breast had gone down.

Andrew Schorr:
And then you had systemic therapy conditioning then. How did the symptoms
subside further?

Valerie:
Well, with each successive cycle that I had, I started the first cycle of chemo with
the Herceptin, and I did consistently better with each treatment. And amazingly
just all of my outward symptoms went away, and as I got scans again, PET scans
and MRIs, it appeared that the disease was just melting away and shrinking. And
basically at the end I had no evidence of disease.

Andrew Schorr:
Wow. Now, Dr. C, this doesn't sound like any of the other breast cancer
discussions I've had where you have this rapid response, so it sounds like, if the
drugs are right for that person's biology is this surprising that you can get this sort
of response? Or is it a matter of just having the right treatments for the right
person, recognizing on the other side if you don't do any treatment you have an
aggressive disease that's unleashed?

Dr. Cristofanilli:
Yes. Of course in this particular case the treatment was absolutely the best that
she could get, and she responded very well. The majority of patients that have
HER-2 disease may respond to either Herceptin or a lapatinib combination. But this
brings even more important the importance of establishing an appropriate
personalized therapy for these patients up front. There are patients for reasons
that we don't know that do not respond as well, even to Herceptin. And of course
the patients that have no chance to get this HER-2 targeted therapy have a very much worse prognosis that anybody else. So the goal is to really find other targets and other possible effective therapy for this group of patients that so far have not been seeing improved prognosis even if they start up front with the proper treatment.

Andrew Schorr:
All right. We're going to take a quick break. When we come back we're going to continue really a very, very important discussion for anybody listening worldwide with inflammatory breast cancer about getting the right diagnosis early and getting the right targeted therapy for you, and I would say in this case participating in research that Dr. Cristofanilli is helping lead with a big team there now at M. D. Anderson in Houston to try to have consensus and answers and a clear strategy for women affected by this condition. We'll be back with much more of Patient Power right after this.

Andrew Schorr:
Welcome back to Patient Power as we continue our discussion about a rare cancer that we want to bring you critical information for, and that's inflammatory breast cancer because it's so critical to get an early diagnosis of what's a very aggressive cancer and get the right personalized treatment for you. Now, at M. D. Anderson they now have the Morgan Welch Inflammatory Breast Cancer Research Program and Clinic to try to bring the latest research together with women suffering from this condition and really give them the treatment that's right for them.

Now, Valerie, you were in a research protocol. So you may well have gotten tomorrow's medicine today. It seems like it made all the difference.

Valerie:
Yes, and I think that's very important for women who have this disease, that they really have to understand this cancer and they have to research and understand what treatments are out there, and particularly M. D. Anderson is leading the way with this and Dr. Cristofanilli with their research. And there's newer targeted therapies coming down all the time, and personalized medicine is not that far away.

Andrew Schorr:
Right. Well, let's ask your doctor and the leader in the field, Dr. Cristofanilli, more about this. So, Doctor, is the idea that if you can understand the biology of a woman's condition and particularly understand better this disease, inflammatory breast cancer, is a different type of cancer, that you can have targeted therapies that can make a big difference in knocking it back for a woman?

Dr. Cristofanilli:
Yes, this is very important. We believe that for inflammatory breast cancer with so many unanswered questions they need to be addressed in a very systematic fashion. Why does aggressive disease present so fast in a matter of a few weeks? There have been theories about the possibility of a virus being involved, but there
has never been enough proof to show that in fact this is the case. So we want to address the epidemiology, go after the cause of the disease, make sure that we can understand which are the women that are at risk to developing inflammatory breast cancer.

And then of course as for any other type of cancer we need to have a model that can help to test new hypotheses and try to find new pathways of therapies. So cell lines, models, so this is probably now one of the few places where we will be able to establish cell lines from patients in a systematic way so that now the disease can be reproduced in the laboratory, and we can test new drugs and new combinations and see how effective they are and then go back to the clinic with new protocols that are unique because they are already proved to be effective in a different, in a unique model. So the goal is really to bring back and forth from the bench to the bedside and to be able to modulate all the factors that we find every day dealing with these patients possibly associated with inflammatory.

Andrew Schorr:
Valerie, let me ask you if you have the same understanding of it that I do, just being exposed to it now for the first time. By you as a woman and others listening to this program, going to M. D. Anderson and having Dr. Cristofanilli and the team there work with you, you're likely to get more targeted treatment with a greater knowledge that's evolving every day, and you're helping facilitate research that's going on behind the scenes that could help other women. Did I get that right?

Valerie:
Yes. I think that's so important to understand that because with this cancer because of the rarity it's so important that women be at a center, the center of research of this cancer and that the leading researchers are delving into what's causing this cancer and how to treat it. So M. D. Anderson is leading the way with that, and it's my hope that other centers around the country will collaborate with them and learn from the research and use it with women in other centers around the country.

Early Detection: Being a Proactive Patient

Andrew Schorr:
Dr. Cristofanilli, so let's back up. So if a woman has this swelling, thickening of the skin in the breast and while it could be an infection, it seems if it's continuing, she's not responding pretty quickly to antibiotics, she should really put this on the table, right? She should say, well, could it be this. And then it would sound like an MRI would be a helpful test as well as maybe a PET/CT.

Dr. Cristofanilli:
Yes. She needs to be very proactive. As Valerie said you need to talk to your physician, raise the possibility. Some physicians will not be aware. They may go back, check and find out that this is actually inflammatory breast cancer, an aggressive disease, and move fast in doing all the possible tests that we discussed.
about including the MRI and the PET/CT and the biopsy in the proper way. We are trying to develop, as I already mentioned, some material for education. There is plenty available already in the literature that tells you exactly how to approach these patients. So you need to think about inflammatory when there is a situation that can mimic either mastitis or inflammatory but not in the right age group and the right conditions, because time is essential.

**Andrew Schorr:**
So the idea, when we say time is essential, is that unfortunately too often a woman diagnosed with ultimately with IBC, it has spread, and certainly that always makes it more difficult. If it can be detected early and it has not spread, how do you feel about the chance of being in Valerie’s situation where they can go on to a pretty normal life?

**Dr. Cristofanilli:**
Well, there is a very good chance that when you have very aggressive disease and you intervene extremely fast you have a disease which has not developed metastasis already. So we have seen already in the last two and a half years the situation happen very frequently. We have patients that come to us after one or two months of antibiotics, where the disease has spread to the chest wall, to other sites, and really the disease can be difficult to control with standard therapy that we have right now. In spite of our effort eventually the women die of their disease.

On the other side where women that we can see in a matter of very few days, three or four days after they found it and they’re diagnosed and their symptoms, we are proactive in those women, and the disease can be controlled extremely well, and they respond fast to chemotherapy. The volume of the disease is less, the possibility of spreading is less, and this has major impact on what the prognosis is. So you have a chance to get patients in a stage III or nonmetastatic much earlier and increase the possibility that your standard treatment or investigational treatment is more effective.

**Andrew Schorr:**
Doctor, so let’s talk about this treatment. So drug therapies, targeted drug therapies, based on the biology of the woman’s own situation, so Herceptin in the case of Valerie because it was HER-2/neu positive.

**Dr. Cristofanilli:**
Yes.

**Research and Clinical Trials**

**Andrew Schorr:**
So there have been an array of a lot of new targeted cancer therapies fortunately, and M. D. Anderson has played a key role in the development of a lot of those. So it sounds like you have a pretty good arsenal if they can be applied to the right person early. Am I right about that?
Dr. Cristofanilli:
That’s correct. So we do have several investigational trials for patients who are newly diagnosed building on our experience in the laboratory and also in the clinic. So we do have a trial with lapatinib for HER-2 positive disease because lapatinib appears to be even more effective than Herceptin particularly in case of a resistance to Herceptin. So to prevent such resistance combined with chemotherapy up front, that will be very important. It will show hopefully in the long-term to be able to control this disease in the HER-2 population.

Then there are some other therapy targets for the EGFR or other biomarkers that we have found important for driving the inflammatory breast cancer growth. And some others we may decide, we just started to investigate because, as you mentioned, there are many agents that are available right now. We need to find just the appropriate combination, the appropriate siting to be tested. Hopefully though as early as possible because an advanced refractory metastatic inflammatory disease is truly a quite difficult disease to control.

Andrew Schorr:
All right. You're a scientist, so I need to do a little translation for the public. But if I get it right, basically as we understand the biology of a woman's particular inflammatory breast cancer you have these different pathways that drugs go down to try to kill the cancer cells and there’s an array of them. So you mentioned EGFR, if I've got that right, and HER-2/neu we were talking about. And as you mentioned, lapatinib, that’s sort of like a second generation drug for the HER-2/neu tumor.

Dr. Cristofanilli:
Correct.

Andrew Schorr:
And you mentioned about resistance, and the idea is that have a drug where the cancer cells can't kind of outsmart it and say I'm not going to respond any more. So all of this research goes on at M. D. Anderson. So, Doctor, it sounds like this is a fast-moving field. And as you said the speed between the research, the bench, as you say, and the bedside, can go pretty quick and that a woman should want to take advantage of that. It may be things that you haven't even had a chance to publish yet.

Dr. Cristofanilli:
Yes, there are things that we have not published yet, but the advantage of this theme is really the possibility to discuss on an everyday basis even what the results of the laboratory experiments are, which is the direction we should take, which type of protocols, clinical trials we should develop and what else we have to develop and making plans for the next three to six months. Many things have not been published because of course it takes time to go through the peer review process, but also because laboratory research has to be validated in every case. But at the
same time we are very optimistic about the fact that we have seen evidence of additional therapies and ways to treat patients with inflammatory breast cancer that we hope to bring to the patients as soon as possible.

**Andrew Schorr:**
Well, I am just thrilled with the work you're doing, the leadership, because I know this has been a very elusive cancer, and it sounds like it needs your leadership and your team there to really make a difference. And I know your goal is not in the long run for everybody to get on a plane or be sure to come to M. D. Anderson but that they get quality care wherever that may be.

**Dr. Cristofanilli:**
Correct. We are trying to make sure that there are other examples of clinics like this in the country that can work together with us. Hopefully, we can expedite clinical trial data in a multicenter fashion in this way so that many patients, even the ones that cannot travel to M. D. Anderson, may access these therapies. And at the same time we can continue to really lead this research effort. But essentially we cannot be alone in this particular endeavor, and patients like Valerie are very much in the lead of advocates to make sure that this happens everywhere in the US and for that matter elsewhere in the rest of the world.

**Andrew Schorr:**
Right. Absolutely. So, Valerie, so you, as I said, are a perfect example of a powerful patient. What would you say to women listening if they have some of these symptoms, the swelling, something is changing fast, the rash, maybe the orange-like texture. If they're concerned about this, maybe people are not used to traveling and getting on a plane, I'd never been to Houston before when I went for my leukemia, but what would you say to them in this case?

**Valerie:**
Well, in this case I can tell them it's critically important that they move swiftly to get to a physician, an oncologist that understands this cancer and critically important that they be at a research center that researches inflammatory breast cancer. And M. D. Anderson in Houston, the inflammatory breast cancer clinic there is leading the way with this cancer, so if they can do that and travel I would highly recommend that they do that because of the aggressiveness, as it was in my case, I think it was instrumental in my optimal outcome is that I got the optimal care, the optimal center. So I think it was the best choice for me. And I think other women should do their research, like I said, and understand what they're dealing with because it's a very critical disease, and every day is critical. It's just most critical.

Also the Inflammatory Breast Cancer Foundation, which they could find on the internet, www.eraseibc.com, is a wonderful site to gain support and information, further information that could assist them and help them. So I would encourage them to reach out. Don't be afraid of the information. Gather the information. I
believe information is power. Without it you can't help yourself. And so that would be my number one thing is for them to delve in, get the information. And push fear aside because they need to do what they need to do in order to combat this cancer.

Andrew Schorr:
So well said, Valerie. Could you repeat that web address again?

Valerie:
Yes, it's www.eraseibc.com.

Andrew Schorr:
So, Dr. Cristofanilli, in this case, but I would say generally but certainly in this case, this is where women afflicted by this condition and researchers such as yourself and your team, everybody is in it together, right? It's trying to move understanding and treatment forward, and it's by this collaboration of patients and your team.

Dr. Cristofanilli:
Yes. We are all here together because we want to understand if we're doing enough. And my personal goal is to do as fast as possible because in the past we have not been extremely effective but also we didn't have enough resources to do this efficiently. I think with the support of grants and the support that comes from our advocates, we believe that the emergency or the urgency to do this research is really coming a long way. We remind ourselves all the time what's the name of our clinic, because Morgan Welch was a young woman and there are many other young women outside that are not receiving the proper treatment or being diagnosed. If we can save this life in the future more efficiently I think the whole goal would be definitely reached.

Andrew Schorr:
All right. Well, we wish you all the best, Dr. Massimo Cristofanilli, who is associate professor of breast medical oncology at the M. D. Anderson Cancer Center and director, as he said, of the Morgan Welch IBC Research Program and Clinic at M. D. Anderson. All the best to you, sir, and we appreciate you being with us and wish you all the best with your research, and may it move fast and save lives.

Dr. Cristofanilli:
Thank you so much for your help.

Andrew Schorr:
And, Valerie Fraser, all the best to you. I hope that this cancer word is out of your life forever but that your message of empowerment for women afflicted by this may go far and wide.

Valerie:
Well, that's my hope, and I hope to help other women with this disease and become a powerful advocate in the cancer community.
Andrew Schorr:
Thank you so much for being with us today. This is what we do on Patient Power, connect you with inspiring patients like Valerie Fraser and really world renowned experts, so many of them, at M. D. Anderson like Dr. Cristofanilli, who is dedicated to saving living with a very aggressive cancer.

We're going to be back on our next program as we discuss a different cancer, Hodgkin's Lymphoma, and we'll have with us Dr. Younes and Dr. Fanale, and again expert information on a cancer that afflicts too many, I would say. I'm Andrew Schorr. You've been listening to Patient Power sponsored by M. D. Anderson Cancer Center. Remember, knowledge can be the best medicine of all. Thanks for joining us.

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