Merkel Cell Carcinoma: Who is At Risk?

Webcast

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Keith Boyer

Introduction

Andrew Schorr:
Hello and welcome once again to Patient Power. I'm Andrew Schorr, and we do these programs every two weeks sponsored by the Seattle Cancer Care Alliance connecting you with leading experts and always inspiring patients. Well, we've talked before about what you might describe as skin cancer, certainly various types, but particularly malignant melanoma and how it can spread. And during the political campaign we talked about that was something that candidate John McCain had been treated for but is doing well as best we know. But there are others as well and one that can be potentially fatal certainly and one that is much less common but we want to educate you about it too, and that's called merkel cell carcinoma. And we're going to learn all about it with a leading expert from the Seattle Cancer Care Alliance in just a minute.

But I want to introduce you first to someone who has experienced this in their own life, and that's Keith Boyer. Now, Keith is normally from Iowa, but he's traveling in Eastern Washington to visit family. He's 73, and back in 2006 came an out-of-the-blue diagnosis. Keith, welcome to the program. Tell us about what drove you to the doctor. What was going on on your face, and what was your expectation before you learned anything?

Keith's Story

Keith:
Well, first of all, thank you very much. I'm happy to be with you. In 2006 in April I noticed a spot, something like a pimple or a small growth on my eyebrow, and it didn't bother me at all. It was not sore, but it did not go away. We of course live in Iowa where there is a lot of snow, so we do not stick in Iowa during the winter. We have a place on the Gulf. My wife kept catching it down there. I also play golf and am outside a lot, and she said you need to have it checked out, and I decided to do it to wait until I got back to Iowa and see my primary care doctor, which I did.

And I actually didn't go in for this particular thing because it still did not look dangerous at all. It was just a small spot that was growing a little bit. It had turned purple. And I saw the primary care doctor about something else and I said, oh, by the way, let's take a look at this. He thought it was a cyst but suggested that maybe we should take it out if it was bothering me. We did that, and as he was taking it out he said this looks funny. I don't know what it is, but it looks funny. I think I'll biopsy it, which, thank goodness, probably saved my life because it came back as merkel cell carcinoma, something that I'd never heard of, but thanks to the internet, even at my advanced age--my kids I guess are the ones that really got on there, but I also can work on the internet and found several research reports on this particular merkel cell carcinoma and also saw several of these research reports were authored by Dr. Paul Nghiem.

Andrew Schorr:
Well, that's--you know what, I'm going to stop you there for a minute, and what a wonderful introduction. We're going to tell the story of how you wound your way among different doctors, but eventually the man you'd read about became your doctor at the Seattle Cancer Care Alliance. So that's a wonderful introduction to meet Dr. Paul Nghiem, who is an associate professor of medicine and dermatology at the University of Washington and at Seattle Cancer Care Alliance, but he has this tremendous research interest in this rare but potentially fatal cancer, merkel cell carcinoma. You eventually connected with him, and we're going to tell that story.

Dr. Nghiem, welcome to the program. How common is this condition because so many of us are not familiar with it?

Dr. Nghiem:
Well, thank you very much, Andrew, for the opportunity to help spread the word about this cancer which many doctors have not learned about in medical school. And I'll tell you a little bit about why that's the case. It's a relatively newly understood cancer. But in terms of your specific question about frequency, it's about 30 times less common than melanoma, so it is relatively uncommon, but it's not unheard of. And perhaps as recently as ten years ago or so it was thought to be much more uncommon than that, mostly because the diagnosis was missed in the laboratory and thought to be some other type of cancer. And something like ten or 15 years ago much better tests became available, and it became apparent that this was a more common cancer than was originally thought. So about 1500 patients a year or people a year will develop merkel cell carcinoma in the United States.

Andrew Schorr:
So we've talked about melanoma, and we know how serious that is, so this is very serious as well.

How Serious is Merkel Cell Carcinoma?

Dr. Nghiem:
That's right. And again compare it in terms of severity with melanoma, melanoma will end in fatality in roughly one in six patients, and that number is about one in three with merkel cell carcinoma. So it's certainly as serious, more serious than melanoma.

Andrew Schorr:
Okay. Now, Keith Boyer had a biopsy, and so the pathologist can spot it then, right? Is it difficult to pick out?

Dr. Nghiem:
Nowadays I would say it's not difficult for the pathologist. The cancer itself initially when the pathologist looks at it looks like a family of a variety of types of cancers, and they basically now have sophisticated tests to divide that family up, and that's very routinely done. And out of those special tests would come a diagnosis of merkel cell carcinoma quite readily these days. The problem these days is in what Mr. Boyer's doctor did so successfully, and that is recognize that this is not a normal cyst. This does often look like a cyst, and that is the thing that it is most commonly mistaken for, but there are a few telltale differences, and Mr. Boyer's doctor really did make a huge difference by finding that early in him.

Andrew Schorr:
Well, let's just talk about that for a second before we find out from Keith Boyer more of what happened, and that is if it is simply treated as a cyst are the cells then that were not discovered then likely to spread? And if so what does that mean and where do they go?

Dr. Nghiem:
Certainly the longer the lesion is left there the more it is allowed--typically will progress and grow and spread. And again to make a comparison to melanoma, the average merkel cell carcinoma has a 30 percent chance of having spread to the lymph nodes at the time that it is diagnosed, whereas the average melanoma has only about a one percent chance or less of having spread. So that's a huge difference in the risk of having spread already to the lymph nodes at the time of diagnosis.

Andrew Schorr:
So aggressive, and where does it go from there?

Dr. Nghiem:
From there it becomes less predictable. About half of the people who have it already spread to the lymph nodes will do very well, and it will be stopped there, and that's the group that Mr. Boyer absolutely seems to be in now, and we're very happy about that. The other people, it could go still to other places of skin on the body or lymph nodes or almost any organ in the body or bone and such. So many different possible places.

Andrew Schorr:
So we're talking about metastatic cancer.

Dr. Nghiem:
We're talking definitely about metastatic cancer, yes.

Andrew Schorr:
Okay. Let's bring in Keith Boyer again. So, Keith, so you went--obviously, anybody, you see your local doctor and then you get referred to doctors often there or maybe within your region. Seattle is not in the Iowa region. So what kind of suggestions for treatment were you getting from different doctors you consulted with?

Keith:
Well, first of all, I would say I went to Chicago to Rush Medical Center because I had heard that there was a doctor there that had had some experience with certain rare types of cancers, and the suggestion there was chemotherapy. It was pretty broad brushed, and at that particular time they were linking it to a small cell lung cancer and going to treat it the same way. I decided to get a second opinion at the University of Iowa Medical Center, and they gave me a very different suggested treatment that dealt with removing lymph nodes, this sort of thing. So I was very confused at the time and again continuing to read as much as I could, and at that period of time I took a chance and called Dr. Nghiem and got in contact with him and started talking about things I'd been reading about and found out that chemotherapy is not the way to go in many, many cases. It can be very serious on this problem, on merkel. And I found out that my immune system should not be compromised, which any kind of surgical removal or whatever would do that.

So the thing that happened then I obtained an appointment out at the cancer care center in Seattle and made the trip and spent quite a little bit of time talking about it, and we'd go from there. In the meantime I had a surgeon in my home town of Burlington--I'll back up a little bit, but when first removed what we thought was a cyst and then diagnosed as merkel, there were several cells that remained. You have to make sure that you do a wide area of surgical I guess you'd say excision, and my doctor did that and was able to check right then to see that all of the merkel cells were gone. So I have quite an area around my eye that is now gone, but I'm very happy with it being gone because all the cells were gone too. But in that short period of time those merkel cells had moved into a lymph node in my cheek and had moved on down into another lymph node lower in my face.

Andrew Schorr:
So then what to do. We're going to let your doctor explain what eventually happened, but I do want to just tell the end of the story real quick as you are doing well, right?

Keith:
I am doing very well, yes.

Andrew Schorr:
Okay.

Keith:
I feel very good about my treatment. The radiation was done at the University of Iowa that Dr. Nghiem set up. Here again an amazing bit of technology that

someone in Seattle can handle that type of thing. Here's how it should be done, and it was done that way. And so went through radiation, and things have gone well since.

Andrew Schorr:
All right. Now let's back up. So, Dr. Nghiem, he mentioned a bunch of stuff from a patient's point of view, and I want to go over that with you. After all, you are the researcher and the medical expert. So first of all the treatment that Keith had I understand was radiation. You came up with a plan. They were able to execute it at the University of Iowa. So why radiation for merkel cell rather than some big surgical thing, taking out lymph nodes and maybe chemotherapy? Why in that case radiation?

Dr. Nghiem:
That's a lot of material to cover, but I think two things to maybe focus on are one is a sentinel lymph node biopsy that Mr. Boyer had that is a very important test in merkel cell carcinoma. It comes back to that fact that I mentioned that merkel cell carcinoma is 30 times more likely to have already spread to the local lymph nodes than is melanoma. And many times, as it was in Mr. Boyer, a doctor, no doctor, no person can feel the lymph nodes and tell if the cancer is there or not. You have to do this special test in which one or two lymph nodes are taken out that specifically are linked to the area of skin where that cancer arose and then looked at under a microscope very carefully for evidence of spread. And that's very helpful in telling us the risk that the cancer has spread somewhere else and telling us whether that lymph node area needs to be treated with something, surgery or radiation. So that's an important message to get out there to patients that they need to at least to consider doing that test. And that test is best done before a very large surgery has disrupted the area where the cancer arose in the first place because if a large surgery has taken off all of that area we're less confident in finding the precise one or two lymph nodes that is linked to the area of skin where the cancer arose. So that's an important procedure.

And then the other central question that you raised is radiation, and the reality is we don't know why certain cancers are much more sensitive to radiation versus others to chemotherapy and others still for surgery. And I would put melanoma in the category where surgery is one of the most effective treatments for it. We know that getting the melanoma out early surgically is incredibly effective, and it's not such a radiation-sensitive tumor. But the story is quite different for merkel cell carcinoma. It's an incredibly sensitive cancer to radiation, and oftentimes surgery can be misleading. We can look under the microscope at the borders of where the cancer was taken out, it doesn't look like there's cancer left, but because of this behavior of merkel cell carcinoma to spread via the lymphatics, the lymph nodes and the tiny vessels that link the lymph nodes with the skin, it's very easy to miss the spread of merkel cell carcinoma, and radiation is a very effective way to treat that. So surgery is an important thing for merkel cell carcinoma, but that essentially is appreciated by everybody out there. What tends to be underappreciated is the role of the sentinel lymph node biopsy and radiation.

Andrew Schorr:
Keith mentioned chemotherapy. For a more advanced case, though, would systemic therapy and chemotherapy be indicated?

Dr. Nghiem:
So this is a very controversial area, and I have my opinion, and it's based on imperfect data but the best data that's out there now. People who have involvement in the lymph nodes of their merkel cell carcinoma and yet on a CAT scan or something do not have any evidence of clear metastatic spread are clearly at risk for developing later metastatic spread, and it would make sense that if chemotherapy were effective in eliminating merkel cell carcinoma from the body that using chemotherapy at that time would be effective. That is not what the data suggests. There is no definitive answer either way, but in a study of about 50 or so patients with lymph node involvement of merkel cell carcinoma that was published from the Memorial Sloan-Kettering Cancer Center in New York, there was a 20 percent lower chance of surviving if patients received adjuvant chemotherapy as compared to those who didn't. And adjuvant means in addition to surgery or radiation. And there's many flaws in that study. It wasn't randomized, it wasn't a very large effect, but it certainly doesn't suggest there's a big advantage of giving chemotherapy.

And what we know about adjuvant chemotherapy is it suppresses the immune system throughout the body. Many of the side effects of chemotherapy involve getting fevers and infections and having to be hospitalized and such, and it cuts down the T lymphocytes in all of the parts of the immune system. And merkel cell carcinoma is a cancer that is very associated with immune deficiency, and conversely we believe that in many cases getting rid of merkel cell carcinoma is associated with a good immune response to the cancer. So that may be related to the finding in 2008 by Patrick Moore's group in Pittsburgh that there's a virus, a completely new human virus now called the merkel cell polyomavirus that is present in about 80 to 90 percent of merkel cell cancers around the world in fact.

Andrew Schorr:
Wow. So we're saying that this is a cancer that may be caused by a virus?

Dr. Nghiem:
"Maybe" is a safe statement, yes. And I think probably a cancer that is probably in part promoted by a virus would also be a safe statement. We know that you do not have to have this virus to get merkel cell carcinoma, but the fact that it's there and a number of other more recent studies suggest that it's probably--the virus is probably playing a role in the cancer development.

Andrew Schorr:
All right. I have a bunch of questions for you. I'm looking over a list of risk factors. It says over 65, so if you're older, and so Keith was about 71 or so when this happened. And then have fair skin, extensive sun exposure, so that could be any skin cancer. And then chronic immune suppression. So it's listed here HIV and also maybe having had immune suppression to accept a kidney or heart transplant,

some other solid organ. And I also notice even a leukemia, that I'm a survivor of, chronic lymphocytic leukemia. So tell us more about who is at risk and if we want to catch---f, god forbid, something like that has developed what sort of surveillance should go on to spot this early?

Who is at Risk for Merkel Cell Carcinoma?

Dr. Nghiem:
Yeah. So you have hit on most of the factors. We just did a formal study on 195 merkel cell carcinoma patients to ask what did their lump look like at first that was later found out to be a merkel cell carcinoma. And in the end we came up with five factors that we summarized A, E, I, O and U, as in the vowels. And one thing, the A stands for asymptomatic, which Mr. Boyer said about his, and about 90 percent of merkel cell carcinoma patients say this bump is not painful, doesn't itch, doesn't bother them.

E stands for expanding rapidly, and two-thirds of the patients say that it had grown a lot in the past two months before the biopsy.

You raised the immune suppression issue, that is the I, immune suppression. And people with a solid organ transplant, as you say like a kidney or a heart or a liver, have approximately a tenfold increased risk of developing merkel cell carcinoma, and people with chronic lymphocytic leukemia have up to a 50-fold increased risk. So even though 90 percent of merkel cell carcinoma patients are like Mr. Boyer and do not have a real readily identifiable problem at all with their immune system, those who do have real immune suppression should be watched very carefully for any type of skin cancer, including squamous cell carcinoma, which is much more common.

Then the fourth factor is older age, and really, we cut off at 50 years of age which would catch 90 percent of merkel cell carcinoma patients, but the average age for this presentation is 70.

And then UV exposed is the final thing. The vast majority, about 80 percent of all these merkel cell carcinomas happen as it did in Mr. Boyer on the face or someplace on the body, the forearm or something that is heavily sun exposed, so that seems to play a role, as it's no doubt not a coincidence that 97 percent of merkel cell carcinoma patients are Caucasian and have fair skin and thus not as much melanin to protect from sun damage. So we know that you don't have to have any one of these factors, about 80 percent of our patients had three of them or so.

So the people to watch out for, the real lesson out there is if you have something that you or your doctor think might be a cyst but it's red, often is the single most common color, and expanding rapidly and yet nontender, then there's something that Mr. Boyer's doctor so successfully found in that thing that otherwise might have been thought to be a cyst that made him think this is weird, that's what you want to have a biopsy of. Something that's growing but not tender and often red and in a sun exposed area, that's not something you should just ignore.

Andrew Schorr:
Okay. Next step, though, as Keith was saying a few minutes ago is, though, he was getting different opinions. And let's face it, this is a rare cancer and well-meaning doctors might try to apply approaches that they think would work right but really would be not appropriate for this as you said. Some things are sort of counterintuitive. Are you at the Seattle Cancer Care Alliance and being a subspecialist in this open to consultations either from the doctors who call from afar or the patients calling in or coming to see you, as Mr. Boyer did?

Dr. Nghiem:
Yeah, every day I get consultations by e-mail, by phone, and they often turn into in-person visits and sometimes just a quick conversation especially with a physician. It's a bit of a challenge how to manage it, but we try our best to help. And the main way that we've tried to do that is to create a website about five years ago to help educate people really around the world. Obviously websites are freely available, and we try to take the best data in terms of management and diagnosis and such about merkel cell carcinoma and put it in relatively easily understood terms and make it available to everybody.

Andrew Schorr:
What's that web address, Dr. Nghiem?

Dr. Nghiem:
The web address is www.merkelcell, m-e-r-k-e-l-c-e-l-l, .o-r-g. And it's pretty darn easy to find on a Google search.

Andrew Schorr:
Let's go back to Keith Boyer. So, Keith, you went on this journey, very smart, research, you, your kids helping and didn't jump until you felt very confident, and that ended up being with a renowned specialist, Dr. Nghiem. What advice would you give to listeners who either fear they have merkel cell or have been told they have it and are trying to decide, searching on the internet now, what to do?

Keith:
I might even back up just a bit more and say I'm from the Midwest, lived in Iowa, Missouri, the Midwest all my life. I grew up on a farm, and I was the exact specimen that Dr. Nghiem talked about, very light complicated. So I guess my recommendation is when you have some sort of an unusual looking whether you call it growth or whatever it is, get it checked out. Don't wait. I would guess that many merkel, years ago many merkel cell cases were not diagnosed because it's very easy to say let's wait and watch it three months because sometimes it doesn't grow fast. Most of the time you'll see a fast growth for a period of time, and I experienced both of those. Mine didn't do anything for about a month and then, wham, it did. But get it checked out.

And then again we have this thing called the internet that's just absolutely great, and you can find all of this information. And I think look for specialists. The question that I ask and I've asked each one of the doctors that I talked to, have you treated merkel cell patients, and basically in our area you're lucky if you find someone that's had more than one or two in their career. It's that rare. So keep looking and keep trying to find someone that knows something about it or is willing to do what you just talked about, talk to an expert. Because Dr. Nghiem, our Google group feels that he's the top in the world, and you can easily get on that website and find a lot of information, and most of the doctors will certainly, I took all of this information I got off the internet and brought it in to my doctors, and I think it really worked out well, and that's the suggestions I would have.

Andrew Schorr:
And again I just want to go back to something you said. The fact that your doctor, and Dr. Nghiem was acknowledging this too, said this looks strange, let's biopsy it, you believe that not just treating it as a cyst, that saved your life?

Keith:
Oh, it did. Because of the aggressiveness of it and in that short period of time that I mentioned earlier it had moved from the primary site, and my doctor did a radioactive tracer to find what lymph gland it went into, then he was able to go there and see what that was. And again by that time my doctor had talked to Dr. Nghiem, and so we were kind of all on the same page. Yes, that's--without a doubt saved my life. And I think most doctors if they don't know they will try to find out. And keep asking questions, keep looking for information.

Andrew Schorr:
Great, great advice. Keith Boyer. So you've been married 53 years to Ruthanne, you've got a bunch of kids, so I guess they're stuck with you for a while, huh?

Keith:
Yeah, they sure are. I have eight grandchildren, two great-grandchildren. Gosh, I feel great about what's happened here.

Andrew Schorr:
All right. And you know what I'd like, the thing I'd like to do, is there anything you want to say publicly to Dr. Nghiem for the care he's given you?

Keith:
How about "Thank You"? There's probably, I know at least 250 of us that are on that Google group that would say thank you. I might add that Tuesday night in Seattle we had quite a group of merkel patients get together. Dr. Nghiem and his staff put on a program on the research that they're doing. We tied in a conference call all over the United States with merkel cell patients. Anybody that wanted to get on could do it. It was just a great evening. Dr. Nghiem and his staff has also

recently received quite a grant from, and again I'm not sure if it was the American Cancer Society or whatever group makes those grants, quite a large dollar grant, and he was talking about some of the new research, this virus,

Andrew Schorr:
That was my, I wanted to ask a question about that just before we run out of time. Dr. Nghiem, so we understand you're working on this all the time. Give us just a brief window into where your research is going and what it could mean.

Hopeful Research for a Rare Cancer

Dr. Nghiem:
We're working on several fronts to try and figure out what causes the disease and how to treat it better. One of the things that we're excited about that I think people will be able to relate to immediately is a staging system for merkel cell carcinoma. Right now there are five staging system that are out there, and if you say you have stage III merkel cell carcinoma depending on that staging system you might mean that you have local disease, lymph node disease or metastatic disease. It's crazy. So we are putting together a new consensus staging system with the American Joint Committee on Cancer so that patients and doctors can speak the same language, and we will know about risks and such.

And we're working on molecular causes, the association of the virus with the disease and how that might be working. So we're quite excited about a number of fronts.

Andrew Schorr:
We've got a lot more to talk about another time. We'll revisit with you and get an update. But we want to congratulate you on what you've done. The information here is great. Keith Boyer, I want to wish you well visiting family in Eastern Washington and back in Iowa, all the best for a long, healthy life. And thank you so much for networking with other patients and then with us on the internet here to bring your story to people worldwide.

Keith:
Well, thank you very much. I think all of us that have experienced this want to spread the word in terms of the work that's being to know because it's been a pleasure to work with Dr. Nghiem and thanks. I've appreciated being on the program.

Andrew Schorr:
Well, thank you sir. And Dr. Paul Nghiem, dermatologist, specialist in this rare cancer, merkel cell carcinoma, but yet it sounds to me saving lives, and thank you for all you do, your whole team there, and we appreciate you being with us today.

Dr. Nghiem:
Thanks for the opportunity to try and let people know more about this important but really quite different skin cancer.

Andrew Schorr:
Right, absolutely. And take this information, folks, to your doctor, share it around so that we can raise awareness with physicians as well as with patients. This is what we do on Patient Power every two weeks sponsored by the Seattle Cancer Care Alliance. Just really groundbreaking information as we had today. I'm Andrew Schorr. Remember, knowledge can be the best medicine of all. Thanks for joining us.