

Pancreatic Cancer and Pre Cancer: A Diagnosis and Treatment Update

Webcast

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Joo Ha Hwang, M.D.

Dorothy Snyder

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Dorothy's Story

Andrew Schorr:

Pancreatic cancer fortunately is a relatively rare disease, but it is a very serious one. It's often difficult to detect. If it could be detected earlier it would make a big difference for so many people. Coming up, a leading gastroenterologist at the Seattle Cancer Care Alliance. We'll discuss the evaluation and treatment of pancreatic cancer, and we'll meet a woman who fortunately was diagnosed with a precancerous condition and had effective treatment. It's all next on Patient Power.

Hello and welcome to Patient Power sponsored by the Seattle Cancer Care Alliance. I'm Andrew Schorr. When we talk about pancreatic cancer or pancreas cancer all too often we're talking about a serious, rare condition where people are diagnosed late. They may have treatment, but it does lead to their demise, often in five years or less, and I've had family members who have had that situation. It is very tragic. If only we could identify precancerous lesions, as the doctors call them, early, have effective treatment and then prevent the cancer from ever developing and do surveillance with that patient to make sure if anything happens again that it is identified early.

Well, there are people who have benefitted from just that, and that precancerous situation has been discovered in a variety of ways. Want you to meet Dorothy Snyder, who joins us from Farmington, Michigan, just outside Detroit. She's 58. Dorothy, let's go back to 2001, so we're talking about right now nine years ago, Christmas time. What happened in the middle of the night?

Dorothy:

I woke up with severe back pain and needed to go to the ER because I was just doubled over. It was intense pain I had never experienced before in my life.

Andrew Schorr:

And when you went, they did the work-up. What did they find?

Dorothy:

They found a pancreatic cyst which was precancerous.

Andrew Schorr:

So you probably had no idea what any of that was. They said precancerous, that's good news, but they also said, we need to understand this better and you need surgery. What happened next?

Dorothy:

Next I had to have an endoscopic ultrasound, and from the results of that was scheduled for Whipple surgery.

Andrew Schorr:

All right. And we're going to talk about Whipple procedure, named after Dr. Allen Whipple from way back in 1935 and understand that it's one of the most major abdominal surgeries, and you had it. It went on for what, eight hours?

Dorothy:

Eight hours, yes.

Andrew Schorr:

All right. And sometimes people recover more quickly, sometimes because it's such an extensive surgery there can be a risk of infection as with any surgery. You did have that?

Dorothy:

Yes, several infections.

Andrew Schorr:

And so you were in the hospital--

Dorothy:

Five and a half weeks.

Andrew Schorr:

Wow. Okay. And then another month or so of recovery. How are you doing now?

Dorothy:

Very well, thank you.

Andrew Schorr:

And what do you do for a living, Dorothy?

Dorothy:

I'm a clinical social worker in private practice.

Andrew Schorr:

All right. But I understand you've been a volunteer for a while now for PanCAN, the pancreatic action network trying to help people understand that there can be people who have these lesions, for example and can be alive.

Dorothy:

Yes, and to pay attention to what your body is telling you.

Andrew Schorr:

Right. Tremendously important story, and we're delighted you could be with us and nine years after anything related to pancreas being discovered. Stay with us. We're going to meet a leading expert from the University of Washington now with some comments about your case and also about the surveillance, the diagnostic and surveillance that can go on.

Our medical guest is Dr. Joo Ha Hwang, who is an assistant professor in the department of medicine in the division of gastroenterology at the University of Washington. He sees patients at the Seattle Cancer Care Alliance. Dr. Hwang, it sounds like that was a good alarm bell that went off for Dorothy in that the condition could be discovered in a precancerous state.

Dr. Hwang:

Yes. Dorothy was actually quite fortunate that she developed some symptoms. Oftentimes with the pancreas and pancreas cancer these patients present without any or don't have symptoms and often will present later because the mass has to develop significantly in order to develop any symptoms. So Dorothy was very fortunate. She did the right thing in presenting to the hospital for evaluation. And this is actually a common scenario for us in terms of pancreatic cysts. We often see patients who develop abdominal pain, not always due to the pancreas. It's often an incidental finding, but when we do identify these cysts we fortunately have the ability to do further evaluation with the endoscopic ultrasound.

Andrew Schorr:

Now, I understand not all cysts have a high risk of becoming cancer. Apparently Dorothy's did. How do you figure that out?

Dr. Hwang:

Basically the only way that we can figure that out at this time is to do further testing with endoscopic ultrasound and fine needle aspiration. And what we do with that procedure is it's similar to any other endoscopy where we sedate the patient and go into the stomach with an endoscope, but at the tip of our endoscope we actually have an ultrasound probe. And the reason for doing this endoscopically is that the pancreas lies right behind the stomach, so it's the best location for doing this type of imaging and intervention.

And when we identify the cyst we're able to pass a needle into the cyst very safely under ultrasound guidance and aspirate the fluid. And it's based on the endoscopic appearance and the fluid analysis where we decide whether or not this has any potential for becoming a malignancy, or sometimes these cysts can actually harbor a malignancy within them, so that's the reason for doing the endoscopic ultrasound.

Andrew Schorr:

And, Dorothy, in your case they did that aspiration, analyzed the cells and said, we need to do this major surgery.

Dorothy:

Yes.

Andrew Schorr:

All right. And when they told you those results even though you knew it was an extensive surgery you understood you needed to go ahead with it.

Dorothy:

Absolutely.

Andrew Schorr:

Okay. And do you think that this early pain that you had and then the analysis of the cells that you're sort of a lucky duck, that you thank your lucky stars that you were able to go through this even though the surgery was so extensive?

Dorothy:

Every day.

Andrew Schorr:

Okay. Well, it's a more positive story certainly as we go on. Let's understand now. You had some follow-up exams. What have the follow-up exams been after you recovered from the surgery to see is there anything developing further?

Dorothy:

I've had CAT scans every six months for the past five years, and now I can do every other year, and I do blood work once a year.

Andrew Schorr:

And no evidence of disease, nothing has shown up.

Dorothy:

No evidence.

Andrew Schorr:

Okay.

Dorothy:

I've been clean.

Risk Factors

Andrew Schorr:

Yay. Dr. Hwang, talk about surveillance. So if somebody is fortunate, they have this surgery, you think you got it, if you will, whether it was a cyst, very early cancer, how do you--well, first of all, is somebody at risk for developing something else if it happened the first time, and how do you watch for that?

Dr. Hwang:

We certainly believe that people are at risk. It depends on the different types of pathologies that are found. We do encourage patients to undergo surveillance following a surgery like this. Oftentimes it will actually be based on the histology of not only the cyst but the pancreas tissue around the cyst. There can be what are called PanIN lesions, which are early transformations in the pancreatic duct that could predispose someone to develop pancreatic cancer in the future, and we'll watch those patients even more carefully.

The criteria or the methods to survey patients aren't concrete. There isn't a consensus in terms of what has to be done, and it basically depends on what technologies or what expertise exists at that facility the patient is being seen at. For example here at the University of Washington we'll often follow these patients with endoscopic ultrasound on an annual basis because we feel that that's the most sensitive test for following that. But this certainly hasn't been proven, and CT scans or other cross-sectional imaging such as MRI are probably perfectly reasonable, especially for patients who are developing cysts because they can be readily identified.

Diagnosis and Testing

Andrew Schorr:

Now, in the area of colon cancer we've been encouraging all of us certainly after 50 to have colonoscopy, and you identify those precancerous polyps. So we're kind of used to that, but we don't have an exam, a regular exam that could be used in mass way for pancreatic cancer, much more rare than colon cancer, so we don't have that simple way to catch it early, do we?

Dr. Hwang:

Not yet. And EUS is probably the best method in terms of the sensitivity test.

Andrew Schorr:

EUS, endoscopic ultrasound.

Dr. Hwang:

Yeah, endoscopic ultrasound. And we do actually at the University of Washington and there are a couple of centers in the country where we have actually a surveillance program for people who we think are at high risk of going on to develop pancreatic cancer, and we defining that here at the University of

Washington as two first-degree family members who developed pancreatic cancer. And we then enroll those patients in a surveillance program where we'll do an endoscopic ultrasound on a yearly basis, and we're looking for subtle changes within the pancreatic parenchyma that we can see on endoscopic ultrasound and try to identify early lesions and ideally identify either precancerous changes or very early cancers that can be cured.

Symptoms

Andrew Schorr:

Wow. And another cancer we've talked about in this way is ovarian cancer, also unfortunately too often discovered late. Now, there and at the University of Washington they've come up with new standards, if you will, of if there are subtle changes in this and that maybe somebody--that might be what's going on in an early way. Is there anything that people could look for related to early signs of something?

Dr. Hwang:

In terms of symptoms, one finding that one of my colleagues here at the University of Washington has identified, Dr. Brentnall, she seems to identify patients who eventually develop pancreatic cancer, that they actually develop diabetes about two years before. And so if a person has a strong family history or is thought to be at high risk of developing pancreatic cancer and they develop diabetes we take that very seriously, and we will do an endoscopic ultrasound examination at that time and keep a close eye on them.

Andrew Schorr:

Dorothy, let's go back to you. Anything like diabetes, family history of pancreatic cancer, and were a smoker?

Dorothy:

No, I was never a smoker. There is no history of any kind of cancer or diabetes in my family.

Andrew Schorr:

Doctor, so are they--it's so rare, so what do we know just generally. I know there can be a connection with smoking, and I know it's typically people over 60. Dorothy you were about 50?

Dorothy:

52.

Andrew Schorr:

So who should be surveilled, if that's the right word, for this?

Dr. Hwang:

Yeah, that's the problem with this condition, especially the type of cyst that Dorothy had. There is no way to survey these patients. The population is too large, there aren't any clearly identifiable risk factors, and again it really is being fortunate enough to have that CT scan that was done for something that picks up the cyst. The caveat to that is then people might think, well, I need to go get a CAT scan because I might have this cyst, and that can actually be dangerous as well because you can pick up incidental findings that are completely benign and may not impact your overall well-being, but it ends up--it causes you to then chase a diagnosis.

And so in order to do these procedures, for example, endoscopic ultrasound with fine needle aspiration, it's an interventional procedure, and it does carry risks. For example, the cyst aspiration that Dorothy had has a risk of infection once we put a needle into that cyst, and so they're not completely benign procedures. So I certainly don't encourage everyone to go out and get a CAT scan if they're asymptomatic. But can if we happen to find a cyst because a CAT scan identified a cyst when they were doing workup for another reason, then we'll go on and evaluate that.

Evaluation

Andrew Schorr:

Now, Dorothy had back pain, so could that be something, extreme back pain needs to be worked up?

Dr. Hwang:

Absolutely. Yeah, back pain is a very common symptom from pancreatic source. Also epigastric pain or midabdominal pain is also a common location to experience when there's a pancreas source. The key is that if you have any abnormal symptoms, especially newer symptom in patients who are older, that just kind of have developed spontaneously, those should be addressed with the patient's primary care physician, and then further workup should be performed based on their evaluation.

Andrew Schorr:

Now, is that what happens sometimes? Now, Dorothy had this acute pain, but with someone else might the situation be they go to their primary care doctor, hey, doc, I've had this abdominal pain and it just won't go away?

Dr. Hwang:

Right.

Andrew Schorr:

And then there's a workup. Are they fortunate enough sometimes that it is discovered early if it's a pancreatic precancerous lesion?

Dr. Hwang:

Oftentimes, no. The most common scenario is that they have some vague abdominal pains, and we find a lesion in the pancreas but we can't say that that lesion was due to--was causing the patient's symptoms. So it's what we call an incidental finding.

Andrew Schorr:

Well, we have a lot more to talk about, including research that Dr. Hwang and others at the University of Washington are doing on newer, better techniques to identify this whole situation, precancerous and cancerous and ongoing surveillance as well. And we'll also get some comments from Dorothy Snyder as we continue. It's all coming up as we continue our Seattle Cancer Care Alliance sponsored edition of Patient Power. We'll be right back.

Treatment

Andrew Schorr:

Welcome back to Patient Power. I'm Andrew Schorr. We're talking about pancreatic cancer. We're also talking about identifying precancerous pancreatic cysts and what can we do about that. Now, Dorothy Snyder from outside Detroit had extreme back pain, went to the emergency room, had endoscopic ultrasound and a needle aspiration of the cells of that cyst in her pancreas, found out it was at high risk of becoming cancer, and so they recommended and she had the Whipple procedure. Dr. Hwang of Seattle Cancer Care Alliance, what is the Whipple procedure?

Dr. Hwang:

Whipple procedure is probably one of the most major abdominal surgeries that one can undergo. It's where the head of the pancreas is removed as well as part of the small bowel, the duodenum and parts of the bile duct, and then it's all reconstructed. But this is a critical area, especially for digestive purposes, and it's a major surgery that requires a highly skilled surgeon. Whenever I send my patients to surgery I make sure that the surgeon is experienced and does a relatively high volume of procedures because studies have clearly shown that patient outcomes are directly related to the skill and experience of surgeons.

Andrew Schorr:

So you had that Dorothy.

Dorothy:

Yes.

Andrew Schorr:

It's a big deal. Now, had the surgery you had, had he or she done it a few times, I hope?

Dorothy:

Yes, several times. He's well known in the area for it.

Andrew Schorr:

Good. Good. Now, could there be a better way, Dr. Hwang, something--you know, we hear, I've done programs on all sorts of minimally invasive or less invasive procedures with less risk. What about with these precancerous pancreatic cysts?

Dr. Hwang:

That's a good question. I'll have to say that right now there aren't any defined interventions that have taken over for the Whipple procedure or partial pancreatectomy. It really depends on the patient. If we think that the patient is a good surgical candidate we'll almost always insist or highly recommend that the patient undergo surgery, but oftentimes we'll have patients who have multiple medical co-morbidities but still have a cyst that's worrisome for going on to become cancer us. And so patients who have bad heart disease, lung disease, morbidly obese, these types of patients they have--they're challenging to operate on especially for such a large surgery, and so we have been looking at more minimally invasive procedures to treat these cysts.

The one thing that's kind of coming out and looks promising has to do with injection of these cysts with alcohol or some chemotherapeutic agent, and there are several basically case reports out of investigators doing this at leading institutions. But it's been done for such a short time we don't have any good long-term data on that. But it is one of those procedures that we'll actually offer to patients who we think are at high risk for going on to cancer but you aren't a good operative candidate.

Andrew Schorr:

Dorothy, at the time of the surgery you were otherwise healthy?

Dorothy:

Yes. Yes.

Andrew Schorr:

So that's the sort of conundrum, right, Doctor, is that while there may be these investigational approaches that could be far less invasive someone like Dorothy saying, well, I am a good surgical candidate, yes, it's a big procedure but the last thing I want is to develop pancreatic cancer which might well kill me, so what do I need to do to not get to that point.

Dr. Hwang:

Like I said, the most definitive therapy is surgery and in someone like Dorothy I don't even think I would bring up the option for doing this investigational therapy because it's so clear that she would benefit from a surgery. So someone who we think is going to live for another 20, 30 years, this really isn't an option for. So she had the right procedure, and now she's undergoing surveillance.

Andrew Schorr:

Doctor, you've been doing research. I know it's maybe a few years away, but what is high intensity focused ultrasound, and where would it fit in?

Dr. Hwang:

It probably doesn't so much fit in in terms of management of cysts. Endoscopic ultrasound is also an integral part in terms of diagnosing pancreatic cancer and staging pancreatic cancer, and one of the things that I've realized over the course of my short career is that the therapies that we have to offer these patients are limited and for the most part are limited in efficacy. We're trying to get to the point where we can offer really good therapies to patients that have relatively minimal morbidity and mortality and long-term survival benefit, but right now the best we can offer, hopefully the patient is resectable and so we'll resect the pancreas and then offer them chemotherapy, potentially also radiation depending on the stage and location of the cancer.

But again even with the best therapies we're somewhat limited in our ability to treat these patients, so one of the things that I've been working on is a new method for treating patients with pancreatic cancer, so solid tumors of the pancreas. And we've been looking at this technology called high intensity focused ultrasound. It's been around for quite some time actually. The first application for ultrasound was for therapy and not for diagnostics. It was actually discovered in the 1920s for delivering high-energy therapy. It's basically a mechanical energy that can heat tissue, and this ultrasound is often used in physical therapy to heat muscle tissue for helping recover injuries.

But lately we've been--the technology has been evolving to the point where we can target ultrasound energy into the body, and one area I've been working on is targeting pancreatic tumors. And the area that seems to be the most exciting isn't just--we can ablate tumors with ultrasound by focusing, similar to a magnifying glass with light, but the other thing that ultrasound can do it looks like is enhance drug delivery. So one of the problems that we've discovered in terms of pancreatic cancer is that the delivery of drug is insufficient. We actually have drugs that are effective against pancreatic cancer cells when we have them out in culture or even in some animal models, but what newer evidence has shown is that the problem with treating pancreatic cancer is the drug just isn't getting into the tumor. And what we're doing with high-intensity ultrasound is to see whether or not we can actually enhance the delivery of the tumor--of the drug into the tumor and make the therapy more efficacious.

So those are things that are coming down the line. We are still in preclinical stages, and we haven't really started with clinical trials yet, but we're really hoping to get that going in the next year or two.

Andrew Schorr:

Yeah, I don't want to raise false hopes for people because it's a long road. It has to be proven every step of the way. But it sounds to me like if somebody today is

diagnosed with pancreatic cancer that they really need to check in with the center where there's a specialized clinic ideally for pancreatic cancer because if there's a chance maybe to be involved in a trial or at least bring that wisdom together, whether it's the wisdom of the surgeon who does the Whipple procedure, gastroenterology, medical oncology, radiation oncology, you want that team. You have that at the Seattle Cancer Care Alliance, don't you?

Dr. Hwang:

Absolutely. And I would encourage any patient who was diagnosed with pancreas cancer to look within their region for that clinic that has a multidisciplinary clinic, one that brings together all the specialties, because it really does--a good care of a patient who has pancreas cancer requires multiple surgeons and multiple--I mean multiple physicians, nutritionists, social workers, pastoral care. It requires a team approach in order to effectively treat these patients.

And it's clearly been demonstrated that if you take a team approach patient survival and outcomes are better, and for such a difficult disease you need all the support that you can get. So that's one thing that I would absolutely encourage people throughout the country who get diagnosed with pancreas cancer or family members of patients to really look for shows centers of excellence that have the multidisciplinary approach.

Andrew Schorr:

I would just like to point out we've done some previous programs on that, particularly with medical oncologists, and one is someone you know well, Dr. Sunil Hingorani, who helps lead the pancreas cancer clinic at the Seattle Cancer Care Alliance. His own family was touched by this. He's an extremely dedicated physician and researcher, and I know in the lab there too they're trying to come up with better drug therapies as well. So hopefully you can all work together, Dr. Hwang.

Dr. Hwang:

Absolutely. In fact Dr. Hingorani is a close collaborator of mine on the research side as well as the clinical side. And what you'll see, you know, what patients see are clinical collaborations, but what's probably more important is what's going on in the background is our research collaborations. And we need to work together in order to bring new therapies that are going to be more effective for treatment of this deadly disease.

Andrew Schorr:

I want to give credit to an organization you're involved with, Dorothy, PanCAN of the pancreatic action network, Pancreatic Cancer Action Network, because while it's not a common condition and research is going on in different places, the effort has been made to get researchers talking to one another, sharing information so that the disease can be beaten, and that's such an important goal.

Dorothy, for you, you know, you got that wake-up call in the middle of the night and you said you thank your lucky stars every day. What would you say to someone listening where maybe they've got these some kind of symptoms and they say, well, maybe it will go away?

Dorothy:

Not to dismiss them and to, you know, listen to what your body is trying to tell you.

Andrew Schorr:

Well, and what's your outlook for the future?

Dorothy:

I just enjoy every day.

Andrew Schorr:

Right. Right. And I imagine nutrition is a little tricky for you, am I right? Because after all you did have a major surgery, or what's that like for you?

Dorothy:

Pretty much I can eat just about anything, but I have to be careful of the fats because they're hard to digest and it's just not worth it. Fruits and veggies.

Andrew Schorr:

Okay. For that, we should all do that, right?

Dorothy:

Yes.

Andrew Schorr:

All right. All of best to you, Dorothy, and I'm just so glad it's worked out the way it has. And I know you may get a little tense, I do as a leukemia patient, when you have those follow-up exams, but so far so good, right?

Dorothy:

Yes. Yes, and thank you.

Andrew Schorr:

Thank you. Now, Dr. Hwang, I want to give the last word to you, sir, because we're all hoping that we can do better. So you're part of that community that both does surveillance and treatment for people, and you're involved in research. What would you say to people listening to give them hope?

Dr. Hwang:

Oh, that a bunch of us are working on trying to cure this disease and a bunch of smart people, so I think that there are many promising therapies out there in the future, and I guarantee that we're going to make an impact on this disease and that the researchers that I'm involved with, in fact just throughout the world that I

know, we're all committed to making this disease go away or at least make it a chronic disease that we can manage and have good long-term outcomes.

Andrew Schorr:

Well, we wish you and your colleagues at the Seattle Cancer Care Alliance and University of Washington and around the world all the best. And thank you for what you do. Dorothy, we've got to say thank you, right?

Dorothy:

Oh, thank you.

Andrew Schorr:

Right. Thank you to Dr. Hwang and all these colleagues. This is what we do on Patient Power. I'm delighted to tell, help tell the story of Dorothy to give people hope, to recommend that if you have any kind of symptom like that you follow up and hear that there are newer things that are being worked on as well so we can do better. As I always like to say, remember, knowledge can be the best medicine of all. I'm Andrew Schorr. Thank you for joining us.

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